

Physics

425 Plasma Physics (3)

Prerequisites: Physics 341 and 411. Fundamentals of kinetic theory, fluid equations, MHD equations, and applications; wave propagation, shielding effect, diffusion stability, and charged particle trajectories.

435 Cloud Physics (3)

Prerequisites: Physics 223 and 341. 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.

455 Theoretical Nuclear Physics (3)

Prerequisite: Physics 461. A study of the basic properties of nuclei, nuclear scattering and forces, nuclear reactions, and models.

461 Quantum Mechanics I (3)

Prerequisite: Physics 331. A study of the Schrodinger wave equation, operators and matrices, perturbation theory, collision, and scattering problems.

463 Quantum Mechanics II (3)

Prerequisite: Physics 461. Continuation of Physics 461 to include such topics as Pauli spin-operator theory, classification of atomic states, introduction to field quantization. Dirac electron theory.

465 Quantum Mechanics III (3)

Prerequisites: Physics 461 and 463. Topics chosen from such fields as: relativistic quantum mechanics, potential scattering, formal collision theory, group theoretical methods in quantum mechanics, electrodynamics.

467 Quantum Statistical Mechanics (3)

Prerequisites: Physics 413 and 463. Techniques for calculation of the partition function with examples drawn from interacting Fermi gas, interacting Bose gas, superconductors, and similar sources.

471 Atomic and Molecular Structure (3)

Prerequisite: Physics 461. 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.

473 Atomic Collision Theory (3)

Prerequisite: Physics 471 or 463. 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.

475 Molecular Spectroscopy (3)

Prerequisite: Physics 461. 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.

481 Physics of the Solid State (3)

Prerequisite: Physics 461. 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.

483 Selected Topics of the Solid State (3)

Prerequisite: Physics 481. 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.

485 Advanced Quantum Mechanics (3)

Prerequisite: Physics 465. Selected topics such as many-body problems field theory, S matrix theory and symmetries.

490 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.

493 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 493 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.

495 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

David B. Robertson, Associate Professor*;
Chairperson
Ph.D., Indiana University

Edwin H. Fedder, Professor Emeritus
Ph.D., American University

Werner F. Grunbaum, Professor Emeritus
Ph.D., University of Chicago

Kenneth F. Johnson, Professor Emeritus
Ph.D., University of California-Los Angeles

E. Terrence Jones, Professor*
Ph.D., Georgetown University

Dennis R. Judd, Professor*
Ph.D., University of Illinois

Carol W. Kohfeld, Professor*;
Ph.D., Washington University

Eugene J. Meehan, Curators' Professor Emeritus
Ph.D., London School of Economics

Michael B. MacKuen, Professor*
Ph.D., University of Michigan

Timothy G. O'Rourke, Teresa M. Fischer Professor in
Citizenship Education and Political Science*
Ph.D., Duke University

J. Martin Rochester, Professor*
Ph.D., Syracuse University

Lyman T. Sargent, Professor*
Ph.D., University of Minnesota

J. Fred Springer, Professor*
Ph.D., University of California-Davis

Andrew Glassberg, Associate Professor*; Director of
MPPA Program
Ph.D., Yale University

Joel N. Glassman, Associate Professor*; Director,
Center for International Studies
Ph.D., University of Michigan

Barbara L. Graham, Associate Professor*
Ph.D., Washington University

Michele M. Hoyman, Associate Professor*
Ph.D., University of Michigan

Joyce M. Mushaben, Associate Professor*
Ph.D., Indiana University

Lana Stein, Associate Professor*
Ph.D., Michigan State University

Richard L. Pacelle, Jr., Associate Professor*
Ph.D., The Ohio State University

G. Eduardo Silva, Associate Professor*
Ph.D., University of California-San Diego

Kenneth P. Thomas, Associate Professor*
Ph.D., University of Chicago

Jean-Germain Gros, Assistant Professor*
Ph.D., University of California-Berkeley

Ruth Iyob, Assistant Professor*
Ph.D., University of California-Santa Barbara

*members of Graduate Faculty

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 Chancellor's Award for Excellence in Teaching, AMOCO Good Teaching Awards, the Burlington Northern Faculty Achievement Award, and the Emerson Excellence in Teaching 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 70 books and 350 articles in scholarly journals and is devoted to using its research findings to improve teaching.

In 1987 the Department of Political Science was designated as a Center of Eminence by the Board of Curators. This makes political science one of only two such programs on the St. Louis campus and ten in the entire University of Missouri system to be so designated. The department was selected because of its excellence in research and teaching and the potential for the department to achieve even greater national and international recognition in the 1990s.

The Greek word for "idiot" was used in ancient times to refer to one who took no interest in public affairs. In addition to helping students become more knowledgeable about politics and public policy, political science coursework 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 following 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 administration, and, in cooperation with the School of Education, the B.A. in Political Science with teacher certification and the B.S. in education with an emphasis in social studies. (See School 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, and politics.

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, 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.

Political Science

The Ph.D. in political science emphasizes 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, many of which are interdisciplinary. Internships, when appropriate, may be a component of many programs. As a research-oriented Ph.D., all successful doctoral candidates must complete a dissertation which makes a significant contribution to knowledge in the field.

Most graduate classes are scheduled so that those employed outside the University can participate in the programs on a part-time basis.

Special Interdisciplinary Degree

The Department of Political Science also cooperates with the Department of Economics in the College of Arts and Sciences and the School 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, East Asian studies, Latin American studies, women's 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 UM-St. Louis' Public Policy Research Centers, the Center for International Studies, and the Office of Computing. The department's membership in the Inter-University 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. Financial assistance is available for qualified students; details can be obtained from the department office.

In addition to these areas, the department offers several ungrouped courses.

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:

11 Introduction to American Politics
12, Introduction to Comparative Politics
200, Political Analysis
395, Senior Seminar in Political Science

Majors are urged to take PolSci 11, 12, and 200 as early as possible since these courses are designed to provide a substantive foundation as well as conceptual and analytical tools for subsequent coursework. The seminar topics in PolSci 395 change from semester to semester, the course can be repeated. 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 political science courses at the 100, 200, or 300 level whose last two digits are 20-29).

American Politics (chosen from among political science courses at the 100, 200, or 300 level whose last two digits are 30-39).

Public Policy and Administration (chosen from among political science courses at the 100, 200 or 300 level whose last two digits are 40-49).

Comparative Politics (chosen from among political science courses at the 100, 200, or 300 level whose last two digits are 50-59).

Political Theory (chosen from among political science courses at the 100, 200, or 300 level whose last two digits are 60-69).

International Relations (chosen from among political science courses at the 100, 200, or 300 level whose last two digits are 80-89).

Methodology (chosen from among political science courses at the 100, 200, or 300 level whose last two digits are 00-09).

At least **18 hours** of political science coursework must be at the 200 or 300 level, not including PolSci 200. B.A. degree students may take a maximum of three 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 objective and consult with advisors 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 several specialized programs of study in political science geared to various student academic and career interests.

Political Science

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 200 and 300 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 PolSci 390, Special Readings, and (3) give special consideration to courses in normative political theory (such as PolSci 262, Modern Political Thought) and research methods (such as PolSci 401, Introduction to Policy Research, which is a graduate course open to undergraduates with Graduate School approval). Students are also encouraged to take coursework outside the department in microeconomics, macroeconomics, and statistics.

Legal Studies This is an ideal program of study for double majors in political science 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 PolSci 20, Foundations of Law: An Introduction to Legal Studies, and at least four of the following political science courses:

- 129, Women and the Law
- 165, American Political Thought
- 190, Studies in Political Science (when appropriate)
- 226, Law and the Individual
- 228, The Federal Judicial System: Politics, Process, and Behavior
- 295, Public Affairs Internship (when appropriate)
- 320, Constitutional Law
- 321, Civil Liberties
- 326, Judicial Decision-making
- 329, Studies in Public Law
- 385, International Law
- 390, Special Readings (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:

- 99, The City
- 130, State Politics
- 135, Introduction to Urban Politics
- 165, American Political Thought
- 190, Studies in Political Science (when appropriate)
- 228, The Federal Judicial System: Politics, Process and Behavior
- 230, The American Presidency
- 231, Congressional Politics
- 232, African Americans and the Political System
- 233, Introduction to Political Behavior
- 234, Politics and the Media
- 235, Political Parties and Elections
- 238, Women in U.S. politics
- 242, Introduction to Public Policy
- 248, Environmental Politics
- 282, United States Foreign Policy
- 295, Public Affairs Internship (when appropriate)
- 332, Studies in American Politics
- 333, Mock Constitutional Convention
- 390, Special Readings (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 PolSci 242, Introduction to Public Policy, and at least four of the following political science courses:

- 140, Public Administration
- 190, Studies in Political Science (when appropriate)
- 240, Bureaucratic Politics
- 241, The Politics of Business Regulation
- 245, Urban Administration
- 246, The Politics of Poverty and Welfare
- 248, Environmental Politics
- 257, Women, Power, and Public Policy
- 282, United States Foreign Policy
- 295, Public Affairs Internship (when appropriate)
- 308, Program Evaluation
- 340, Organizational Politics
- 342, Public Personnel Management
- 343, Studies in Policy Formation
- 344, Public Budgeting
- 346, Urban Planning and Politics
- 349, Studies in Public Administration
- 351, Comparative Public Policy and Administration

Political Science

- 390**, Special Readings (when appropriate)
394, Leadership and Management in Nonprofit Organizations

Depending on career interests, students should add coursework 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 coursework 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 PolSci 180, World politics, or PolSci 150, Comparing Different Worlds, and at least four of the following political science courses (some of which are international politics courses that focus on conflict or cooperation between countries, and some of which are comparative politics courses that focus on political, economic, and social change within countries):

- 80**, Global Issues
- 85**, Global Ecology
- 155**, East Asian Politics
- 160**, Contemporary Political Ideologies
- 190**, Studies in Political Science (when appropriate)
- 251**, Comparative Politics of Europe
- 253**, Political Systems of South America
- 254**, Political Systems of Mexico, Central America, and the Caribbean
- 256**, Russian and the New Republics
- 257**, Women, Power, and Public Policy
- 258**, African Politics
- 269**, The Marxist Heritage
- 280**, Model United Nations
- 282**, United States Foreign Policy
- 283**, International Political Economy
- 284**, European International Relations
- 285**, International Organizations and Global Problem-Solving
- 289**, Middle East Politics
- 295**, Public Affairs Internship (when appropriate)
- 351**, Comparative Public Policy and Administration
- 355**, Democratization in Comparative Perspective
- 359**, Studies in Comparative Politics
- 385**, International Law
- 386**, Studies in War and Peace
- 388**, Studies in International relations
- 390**, Special Readings (when appropriate)

Students interested in working for the U.S. foreign service, American-based multinational companies, and non-profit organizations should also take coursework 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.

After fulfilling the general education and specific major degree requirements, students are to take the remaining hours required to complete the B.A. in Political Science from courses, which the appropriate department has evaluated as being of university-level quality, from one or more of the following areas or their 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, and interdisciplinary. The political science department will require students not satisfying course prerequisites to receive permission of the instructor prior to enrollment.

Bachelor of Science in Public Policy and Administration

The BSPA degree has two 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.

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

- 11**, Introduction to American Politics
- 12**, Introduction to Comparative Politics
- 140**, Public Administration
- 200**, Political Analysis
- 242**, Introduction to Public Policy
- 295**, Public Affairs Internship
- 395**, Senior Seminar in Political Science

- Econ 51**, Principles of Microeconomics
- Econ 52**, Principles of Macroeconomics
- CCJ 220**, Statistical Analysis in Criminology and Criminal Justice or
- Sociology 220**, Sociological Statistics or
- Econ 265**, Economic Statistics

In addition, students must provide a demonstration of computer proficiency through one of the following: **BA 103**, Computers and Information Systems; extension courses; or other study approved by the BSPA coordinator.

BSPA students may take a maximum of three hours of political science on a satisfactory/unsatisfactory basis, except for the following (which may not be taken on a satisfactory/unsatisfactory basis): PolSci 11, 12, 140, 200, 242, 295, and 395.

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:

Political Science

PolSci 342, Public Personnel Management
PolSci 344, Public Budgeting
BA 140, 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.

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 beyond the four political science courses already required.

Policy and Institutions Courses:

45, Introduction to Labor Studies
130, State Politics
135, Introduction to Urban Politics
228, The Federal Judicial System: Politics, Process, and Behavior
230, The American Presidency
231, Congressional Politics
240, Bureaucratic Politics
245, Urban Administration
246, The Politics of Poverty and Welfare
248, Environmental Politics
340, Organizational Politics
343, Studies in Policy Formation
346, Urban Planning and Politics
351, Comparative Public Policy and Administration
394, Leadership and Management in Nonprofit Organizations

Note: Students considering the B.S. in Public Policy and Administration should see a political science advisor 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 three hours in political science taken on a satisfactory/unsatisfactory basis toward the minor. Students taking an internship

(Political Science 295) 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:

11, Introduction to American Politics
130, State Politics
135, Introduction to Urban Politics
165, American Political Thought
228, The Federal Judicial System: Politics, Process, and Behavior
230, The American Presidency
231, Congressional Politics
232, African Americans and the Political System
233, Introduction to Political Behavior
234, Politics and the Media
235, Political Parties and Elections
238, Women in U.S. Politics
240, Bureaucratic Politics
241, The Politics of Business Regulation
242, Introduction to Public Policy
282, United States Foreign Policy
295, Public Affairs Internship (when appropriate)
332, Studies in American Politics
333, Mock Constitutional Convention
390, Special Readings (when appropriate)

Minor in Comparative Politics

Political Science 12, Introduction to Comparative Politics, plus 12 hours from the following political science courses:

150, Comparing Different Worlds
155, East Asian Politics
251, Comparative Politics of Europe
253, Political Systems of South America
254, Political Systems of Mexico, Central America, and the Caribbean
256, Russia and the New Republics
257, Women, Power and Public Policy
258, African Politics
351, Comparative Public Policy Administration
355, Democratization in Comparative Perspective
359, Studies in Comparative Politics
390, Special Readings (when appropriate)

Minor in International Relations

Fifteen hours, chosen from the following political science courses:

80, Global Issues
85, Global Ecology
180, World Politics
282, United States Foreign Policy
283, International Political Economy
284, European International Relations
285, International Organizations and Global Problem-Solving
289, Middle Eastern Politics
295, Public Affairs Internship (when appropriate)
385, International Law
386, Studies in War and Peace
388, Studies in International Relations
390, Special Readings (when appropriate)

Political Science

Minor in Political Theory

Fifteen hours, chosen from the following political science courses:

- 160, Contemporary Political Ideologies
- 165, American Political Thought
- 261, Ancient and Medieval Political Thought
- 262, Modern Political Thought
- 268, Feminist Political Theory
- 269, The Marxist Heritage
- 368, Studies in Political Theory
- 390, Special Readings (when appropriate)

Minor in Public Administration

Political Science 140, Public Administration, plus 12 hours chosen from the following political science courses:

- 240, Bureaucratic Politics
- 241, Politics of Business Regulation
- 242, Introduction to Public Policy
- 245, Urban Administration
- 295, Public Affairs Internship (when appropriate)
- 308, Program Evaluation
- 340, Organizational Politics
- 342, Public Personnel Management
- 343, Studies in Policy Formation
- 344, Public Budgeting
- 346, Urban Planning and Politics
- 349, Studies in Public Administration
- 351, Comparative Public Policy and Administration
- 390, Special Readings (when appropriate)

Minor in Public Law

Fifteen hours, chosen from the following political science courses:

- 20, Foundations of Law: An Introduction to Legal Studies
- 129, Women and the Law
- 226, Law and the Individual
- 228, The Federal Judicial System: Politics, Process, and Behavior
- 320, Constitutional Law
- 321, Civil Liberties
- 326, Judicial Decision-Making
- 329, Studies in Public Law
- 385, International Law
- 390, Special Readings (when appropriate)

Minor in Public Policy

Political Science 242, Introduction to Public Policy, plus 12 hours chosen from the following political science courses:

- 130, State Politics
- 135, Introduction to Urban Politics
- 140, Public Administration
- 230, The American Presidency
- 241, The Politics of Business Regulation
- 245, Urban Administration
- 246, The Politics of Poverty and Welfare
- 248, Environmental Politics
- 257, Women, Power, and Public Policy
- 295, Public Affairs Internship (when appropriate)
- 308, Program Evaluation
- 344, Public Budgeting
- 346, Urban Planning and Politics

- 351, Comparative Public Policy and Administration
- 390, Special Readings (when appropriate)

Minor in Urban Politics

Political Science 135, Introduction to Urban Politics, plus 12 hours chosen from the following political science courses:

- 232, African-Americans and the Political System
- 245, Urban Administration
- 246, The Politics of Poverty and Welfare
- 295, Public Affairs Internship (when appropriate)
- 346, Urban Planning and Politics
- 390, Special Readings (when appropriate)

Graduate Studies

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 Graduate Record Examination 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 400 level and 12 hours must be in core courses in political science, including:

- 401, Introduction to Policy Research

and three of the following political science courses:

- 410, Introduction to Policy Analysis
- 420, Proseminar in Public Law
- 430, Proseminar in American Politics
- 440, Proseminar in Public Policy Administration
- 450, Proseminar in Comparative Politics
- 460, Proseminar in Political Theory
- 470, Proseminar in Urban Politics
- 480, 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

Political Science

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 midprogram 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.

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 precareer and midcareer 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 baccalaureate or graduate 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 Graduate Record Examination 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 (21 credit hours)

Twenty-one credit hours will be required in the areas of research methods, normative and empirical theory, 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.

Policy Concentration (15 credit hours)

Students, in consultation with the Program Director, will develop expertise in a substantive policy area. Policy concentrations (many interdisciplinary) include:

- American National Policy
- Urban Politics and Planning
- Comparative/International Policy
- Policy Analysis and Research
- Public Budgeting and Finance
- Labor and Employment
- Criminal Justice
- Social Welfare

Internship (six 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 two general examinations, the first covering the fields of public policy institutions, processes and analysis, and the second covering 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 prelaw students. Many other majors pursue graduate education in business, education, public administration, public policy administration, journalism, and many other fields. Guides to careers in political science are available in the department office.

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, 8001 Natural Bridge Road, St. Louis, MO 63121-4499.

Political Science

Course Descriptions

Courses in this section are grouped as follows: Ungrouped Courses; Public Law; American Politics; Public Policy and Administration; Comparative Politics; Theory and Methodology; International Relations; and Graduate Courses.

The following courses fulfill the Social Sciences [SS] breadth of study requirements: 11, 12, 20, 80, 85, 99, 129, 130, 135, 140, 155, 160, 165, 180, 190, 226, 228, 230, 231, 232, 233, 234, 235, 238, 240, 241, 242, 245, 246, 248, 251, 253, 254, 256, 257, 258, 261, 262, 268, 269,* 280, 282, 284, 285, 289, 295, 304, 306, 308, 318, 320, 321, 326, 329, 332, 333, 340, 342, 343, 344, 346, 349, 351, 355, 359, 368, 385, 386, 388, 390, 394, 395.

* Course may fulfill the Humanities [H] or Social Sciences [SS] breadth of study requirement.

11 Introduction to American Politics (3)

Introduction to basic concepts of government and politics with special reference to the United States, but including comparative material from other systems. Course fulfills the state requirement.

12 Introduction to Comparative Politics (3)

This course introduces students to the world of comparative systems of governance. It examines similarities and differences in the basic political structures, institutions and governmental processes in advanced industrial and industrializing countries. It also provides an understanding of fundamental comparative methods based on individual country or case studies. Particular attention is paid to ideologies, political parties, legislatures, and public policy.

20 Foundations of Law: An Introduction to Legal Studies (3)

(Same as CCJ 20 and Interdisciplinary 20). 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.

45 Introduction to Labor Studies (3)

(Same as Interdisciplinary 45). This course covers many topics important to the role of unions in the American political system and American society from a labor perspective. Topics include the role of workers in current and future times, unions' institutional structure, collective bargaining strategies and obstacles for union organizing, recent union campaigns, labor's political role, and the relationship between labor and the media.

80 Global Issues (3)

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.

85 Global Ecology (3)

Prerequisite: Biology 001. Must be taken concurrently with Biology 130 for three hours biology credit and three hours of political science credit. A course team-taught by the Biology and Political Science departments, aimed particularly at elementary education majors. Combines natural science and social science perspectives in taking a global view of a variety of environmental concerns, such as air and water pollution, climate change, conservation of nonrenewable resources, and other issues. Examines the underlying scientific dimension, as well as the political-economic-social aspects of problem-solving at local, national, and international levels. Features labs and field trips in addition to lecture and discussion. Three hours of lecture, one hour and fifteen minutes discussion, and three and one-half hours laboratory per week.

89 Middle Eastern Politics (3)

Prerequisite: PolSci 11, or 12, 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. Course fulfills the Cultural Diversity requirement.

99 The City (3)

(Same as CCJ 99, Sociology 99, and Interdisciplinary 99.) 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.

129 Women and the Law (3)

Legal position of women in the United States, emphasizing constitutional law, criminal law, domestic relations, and fair employment practice laws.

130 State Politics (3)

Prerequisite: PolSci 11 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. Course fulfills the state requirement.

135 Introduction to Urban Politics (3)

Prerequisite: PolSci 11 or consent of instructor. Examination of structure and process of politics in the urban community, with emphasis on their relationships to community power structures. Course fulfills the state requirement.

Political Science

140 Public Administration (3)

Prerequisite: PolSci 11 or consent of instructor. Survey of public administration, with reference to organization, financial administration, personnel management, and judicial control of the administrative process. Course fulfills the state requirement.

150, 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 socio-economic development. It explores in detail one or more of these themes in cases drawn from developing and developed nations.

155 East Asian Politics (3)

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. This course fulfills the Cultural Diversity requirement.

160 Contemporary Political Ideologies (3)

An introduction to the major political ideologies of the world today. Emphasis is placed on democracy, feminism, Marxism, and nationalism.

165 American Political Thought (3)

History of political thought in the United States from colonial times to the present.

180 World Politics (3)

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.

190 Studies in Political Science (3)

Selected topics in political science.

200, 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.

226 Law and the Individual (3)

(Same as CCJ 226.) Prerequisite: PolSci 11, or 20, or consent of instructor. An examination of the formal and informal aspects and processes of the American judicial system and its effect on the individual. The course will cover criminal and civil law, public and private law, state and federal courts, and the processes by which disputes are transformed into legal actions. Topics include judicial selection and recruitment, plea bargaining, the impact and implementation of judicial decisions, the examination of a number of substantive areas of law like contracts and torts, and the role of courts in policymaking and dispute resolution. Course fulfills the state requirement.

227, State and Local Courts (3)

Prerequisite: PolSci 11 or PolSci 20 or consent of instructor. Analysis of the structure and functions of state and local courts. Emphasis on roles of juries, judges, counsel, litigants, interest groups and other actors and processes in the adjudication process.

228 The Federal Judicial System: Politics, Process, and Behavior (3)

Prerequisite: PolSci 11, or 20, or consent of instructor. The study of the federal courts as a political system. Analysis of organization, procedures, and norms of the Supreme Court and lower federal courts. Consideration of judicial recruitment, attitudes, and decision making as well as the impacts and limitations of judicial policy making.

230 The American Presidency (3)

Prerequisite: PolSci 11 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. Course fulfills the state requirement.

231 Congressional Politics (3)

Prerequisite: PolSci 11 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. Course satisfies the state requirement.

232 African Americans and the Political System (3)

Prerequisite: PolSci 11 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. Course fulfills the state requirement.

233 Introduction to Political Behavior (3)

Prerequisite: PolSci 11 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. Course fulfills the state requirement.

Political Science

234 Politics and the Media (3)

Prerequisite: PolSci 11 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.

235 Political Parties and Elections (3)

Prerequisite: PolSci 11 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. Course fulfills the state requirement.

238 Women In U.S. Politics (3)

Prerequisite: PolSci 11 or consent of instructor. This course focuses on the relationship between gender and organized politics in the United States. Topics to be addressed include the historical development of women's activism in politics, women as political candidates and elected officials, women's organizations in American politics, women and public policy, women's rights and issues, and women and political leadership. Throughout the class, emphasis will be placed not only on examining the role of women in politics, but also on understanding the role of gender in the construction and evaluation of political institutions, practices and public policies in the United States.

240 Bureaucratic Politics (3)

Prerequisite: PolSci 11 or consent of instructor. Examination of the policy-making process within public organizations and the forces influencing the making of bureaucratic policy. Study of the role of the bureaucracy as one of several "actors" in the larger policy process. Course fulfills the state requirement.

241 Politics of Business Regulation (3)

Prerequisite: PolSci 11 or consent of instructor. This course will examine the role of governmental decision-making processes in regulatory policy, including congressional politics, presidential initiatives, administrative rulemaking, and society wide constraints. The impact of government regulation and alternative means for accomplishing regulatory goals (e.g., mandatory standards or incentive systems) will also be considered. Bureaucratic incentives and the role of the courts will be emphasized. Selected areas of regulation which may be covered include: equal employment policies, occupational health and safety policies, environmental policies, employment policies, and urban policies.

242 Introduction to Public Policy (3)

Prerequisite: PolSci 11 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. Course fulfills the state requirement.

245 Urban Administration (3)

Prerequisite: PolSci 11 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. Course fulfills the state requirement.

246 The Politics of Poverty and Welfare (3)

Prerequisite: PolSci 11 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.

248 Environmental Politics (3)

Prerequisite: PolSci 11 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.

251 Comparative Politics of Europe (3)

Prerequisite: PolSci 12 or consent of instructor. Introduction to the major political systems of Europe. The course will emphasize political culture, political parties, interest groups, and political behavior. It will also focus on political institutions and policy making. While individual countries will be examined separately, the course will also emphasize comparison between systems.

253 Political Systems of South America (3)

Prerequisite: PolSci 12 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. This course fulfills the Cultural Diversity requirement.

254 Political Systems of Mexico, Central America, and the Caribbean (3)

Prerequisite: PolSci 12 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. This course fulfills the Cultural Diversity requirement.

Political Science

256 Russia and the New Republics (3)

Prerequisite: PolSci 12 or consent of instructor. Examination of political-economic conditions responsible for the creation, collapse, and reconstruction of the former Soviet Union, with emphasis on new elites and interest groups, problems of democratic transition, ethnic conflict and socio-economic reform.

257 Women, Power, and Public Policy (3)

Prerequisite: PolSci 11, or 12, or consent of instructor. This course explores differences in the political roles assigned to women in both advanced industrial and underdeveloped states as a function of economic development and cultural factors. It focuses on the differences between policies made for women and policies made by women, assesses the importance of "empowerment" in redefining women's social-political rights, and compares the nature of "gender gaps" that exist in Europe and the U.S.

258 African Politics (3)

Prerequisite: PolSci 12 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. Fulfills the Cultural Diversity requirement.

261 Ancient and Medieval Political Thought (3)

Study of political thought from Plato to Machiavelli.

262 Modern Political Thought (3)

Study of political thought from Machiavelli to the present.

268 Feminist Political Theory (3)

A study of the history of feminist political thought with an emphasis on contemporary concerns. Issues to be considered include the feminist theories of the state, gender and justice, and equality and difference.

269 The Marxist Heritage (3)

(Same as Philosophy 269 and Interdisciplinary 269.) Study of Marx and leading Marxists. Designed to evaluate their influence on recent political, economic, and social thought and institutions

280 Model United Nations (1-3)

Prerequisite: Consent of instructor. Students in this course will be members of the UM-St. Louis delegation to the Midwest Model United Nations, a "mock UN" roleplaying experience involving various universities representing UN member countries. Students are expected to develop knowledge about the UN and do research on a selected country and issue area (for example, terrorism or economic development). May be repeated up to a maximum of three credit hours.

282 United States Foreign Policy (3)

Prerequisite: PolSci 11, or 12, 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.

283 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.

295 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 six credit hours may be earned.

304 Survey Research Practicum (3)

(Same as Econ 304 and Sociology 304.) 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.

306 Theory of Decisions and Games (3)

Prerequisite: Six hours of Philosophy and junior standing, PolSci 401 (or the equivalent) or consent of instructor. (Same as Philosophy 365). 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.

308 Program Evaluation (3)

Prerequisites: PolSci 11, or 140, and one of the following: BA 250, Sociology 220, Criminology and Criminal Justice 220, or consent of instructor. Study of techniques and applications for evaluating the impact of public programs.

318 Social Choice in Political-Economic Systems (3)

Prerequisites: Two courses in Economics, Political Science, or Sociology. A study of the mechanisms of social choice from the standpoint of individuals and institutions maximizing their objectives. This area draws on work done by sociologists, political scientists, and economists.

320 Constitutional Law (3)

Prerequisite: PolSci 11, or 20, 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. Course fulfills the state requirement.

Political Science

321 Civil Liberties (3)

Prerequisite: PolSci 11, or 20, or 320, 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. Course fulfills the state requirement.

322 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.

326 Judicial Decision-Making (3)

Prerequisite: PolSci 11, or 20, or consent of instructor. The purpose of this course is to investigate the processes by which cases get to the U.S. Supreme Court, are accepted or denied, and are decided. The means for investigating this process will be a semester-long simulation. Students will assume the roles of the current justices of the Supreme Court, the Solicitor General, and other litigants in the judicial system. Course fulfills the state requirement.

329 Studies in Public Law (3)

Prerequisite: PolSci 11, or 20, or consent of instructor. Selected topics in public law. May be repeated

332 Studies in American Politics (3)

Prerequisite: PolSci 11 or consent of instructor. Selected topics in American politics. May be repeated.

333 Mock Constitutional Convention (3)

Prerequisite: PolSci 11 or consent of instructor. An active exercise in political imagination. Students make proposals and bargain with each other to write a constitution for the United States in the 21st century. Students are encouraged to develop new views of what is a desirable society and to gain a richer appreciation of how practical politics are conducted. The course is designed for majors and nonmajors who enjoy political discussion and have a genuine interest in political life. Course fulfills the state requirement.

340 Organizational Politics (3)

Prerequisite: PolSci 11, or 140, or consent of instructor. Examination of public sector organizations and the range of factors affecting their operation. Specific areas of attention will include theories of organization structure and management, decision theory, organizational/environment interactions, interorganizational relations, and theories of organizational change and development.

341 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.

342 Public Personnel Management (3)

Prerequisite: PolSci 11, or 140, 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.

343 Studies in Policy Formation (3)

Prerequisite: Consent of instructor. Selected topics in policy formation. May be repeated.

344 Public Budgeting (3)

Prerequisite: PolSci 11 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.

346 Urban Planning and Politics (3)

Prerequisite: PolSci 11, or 140, or consent of instructor. Examination of the political processes of urban areas as they relate to the planning of services and facilities. Course fulfills the state requirement.

347, Introduction to Environmental Law and Policy (3)

Prerequisite: Senior or graduate standing or consent of instructor. Survey of the most prominent federal laws governing environmental compliance and pollution control. Examines laws applicable to environmental impact statements, air pollution, water pollution, and hazardous waste. Addresses policy concerning the relative merits of using technological capabilities as compared with health risks in setting environmental standards. Discusses the need for environmental regulation to protect societal resources.

349 Studies in Public Administration (3)

Prerequisite: PolSci 11, or 140, or consent of instructor. Selected topics in public administration. May be repeated.

351 Comparative Public Policy and Administration (3)

Prerequisite: PolSci 12 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.

Political Science

355 Democratization in Comparative Perspective (3)

Prerequisite: PolSci 12 or consent of instructor. This course explores the meaning of democracy and the nature of transitions to democracy, particularly the processes of political liberalization and democratization that follow the breakdown of authoritarian rule. Cases will be drawn from Latin America and other regions.

359 Studies in Comparative Politics (3)

Prerequisite: PolSci 12 or consent of instructor. Selected topics in comparative politics. May be repeated.

368 Studies in Political Theory (3)

Prerequisite: PolSci 11, or 12, or consent of instructor. Selected topics in political theory. May be repeated.

385 International Law (3)

Prerequisite: PolSci 11, or 12, 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.

386 Studies in War and Peace (3)

Prerequisites: Junior standing and PolSci 11, or 12, 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.

388 Studies in International Relations (3)

Prerequisite: PolSci 11, or 12, or consent of instructor. Selected topics in international relations. May be repeated.

390 Special Readings (1-10)

Prerequisite: Consent of instructor. Independent study through readings, reports, and conferences. May be repeated.

391A Management Issues in Non-profit Organizations: Staff Management Issues (1)

Prerequisite: Junior Standing. (Same as Social Work 391A and Public Policy Administration 391A). This course addresses issues involved in managing staff in non-profit 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.

319B Management Issues in Non-profit Organizations: Legal Issues in Governing and Managing Non-profit Organizations (1)

Prerequisite: Junior Standing. (Same as Social Work 391B and Public Policy Administration 391B). This course addresses legal issues involved in managing and governing non-profit 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 non-profit law.

319C Management Issues in Non-profit Organizations: Financial Issues (1)

Prerequisite: Junior Standing. (Same as Social Work 391C and Public Policy Administration 391C). This course addresses financial issues involved in governing and managing non-profit 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.

394 Leadership and Management in Nonprofit Organizations (3)

(Same as Public Policy Administration 394, Social Work 308, and Sociology 308.) Prerequisite: Junior standing.

This course 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:

- 1) the dynamics, functions and membership structure of NPOs, especially staff-board and other volunteer relations;
- 2) governance and management of NPOs;
- 3) resource mobilization and
- 4) program development management and evaluation.

395 Senior Seminar in Political Science (3)

Prerequisites: Senior standing and consent of instructor. Required of all political science majors in their last year of coursework 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.

Political Science

396 American Philanthropy and Non-profit Resources Development (3)

Prerequisite: Junior standing or consent of instructor. (Same as Social Work 396 and Public Policy Administration 396). This course addresses the history, philosophy, roles and scope of philanthropy in the United States, including its role in the non-profit, 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.

400 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.

401 Introduction to Policy Research (3)

(Same as Public Policy Administration 401.) Procedures for testing explanations, including research design, principles of measurement, probability sampling, methods of data collection, and techniques for analyzing data.

402 Intermediate Techniques in Policy Research (3)

Prerequisites: Graduate standing and PolSci 401. Elementary distribution theory, statistical inference, and an introduction to multiple regression. Emphasis on practical applications.

403 Advanced Techniques in Policy Research (3)

Prerequisites: Graduate standing and PolSci 402. Selected topics in policy research emphasizing forecasting, modeling, and estimation.

404 Multi-Method Research Design (3)

Prerequisites: PolSci 403 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-analysis of secondary data sources.

405 Directed Readings in Research Methods (1-10)

Independent study through readings, reports, research projects, and conferences.

410 Introduction to Policy Analysis (3)

(Same as Public Policy Administration 410.) Systematic development of a critical/analytic base for dealing with public policy.

411 Seminar in Policy Analysis (3)

Prerequisite: PolSci 410. Evaluation and criticism of contemporary public policies in selected areas.

414 Topics in Public Policy Analysis (3)

Intensive analysis of a specific public policy area such as housing, budgeting, integration, planning, metropolitan reorganization. Course may be repeated.

415 Directed Readings and Research in Public Policy (1-10)

(Same as Public Policy Administration 415.) Prerequisite: Consent of Instructor. Independent study through readings, reports, research projects, and conferences. May be repeated for credit, provided the subject matter is different.

417 Income and Pension Policy for the Aged (3)

Prerequisite: Graduate standing or consent of Instructor. (Same as GER 417 and PPA 417.) Examination of federal, state, and local policies that affect the economic well-being of the elderly. The development of social security programs and pension programs is explored within a historical context. Emphasis is placed on the analysis of current policy problems and proposed solutions.

419 Cases in Public Policy Analysis (3)

(Same as Public Policy Administration 419.) Intensive analysis of several public policy cases. Cases will be problem-solving exercises in areas such as personnel management, program financing, budget preparation, and planning.

420 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).

421 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.

422 Law, Courts, and Public Policy (3)

(Same as CCJ 435.) 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.

425 Directed Readings and Research in Public Law (1-10)

Independent study through readings, reports, research projects, and conferences.

430 Proseminar in American Politics (3)

Study of individual and group political behavior, including socialization, participation, consensus formation, representation, and legislative and judicial behavior.

431 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.

Political Science

432 Intergovernmental Relations (3)

Prerequisite: Graduate standing. In the United States, nearly all domestic policy is implemented through an extremely complex intergovernmental system in which the federal government administers grants-in-aid or sets standards for states and localities that administer programs. This course will analyze this policy system by: (1) tracing the origins and evolution of American federalism; (2) analyzing the grants-in-aid system, especially the New Deal; (3) comparing the United States system with federal and unitary policy systems in other industrialized nations.

433 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.

435 Directed Readings and Research in American Politics (1-10)

Independent study through readings, reports, research projects, and conferences.

440 Proseminar in Public Administration (3)

(Same as Public Policy Administration 440.) 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.

441 Seminar in Public Administration (3)

Research problems and design in public administration. May be repeated for credit when the subject matter is different.

442 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.

443 Health Care Policy (3)

(Same as Public Policy Administration 443 and Gerontology 443.) Prerequisite: 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.

444 Seminar in Public Policy and Aging (3)

(Same as Public Policy Administration 444 and Gerontology 444.) 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.

445 Directed Readings and Research in Public Administration (1-10)

Independent study through readings, reports, research projects, and conferences.

446 Selected Topics in Health Care Policy (3)

(Same as Public Policy Administration 446 and Sociology 446.) 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.

447 Seminar in Public Policy (3)

Prerequisite: Graduate Standing. Research seminar aimed at producing a substantial research project in the areas of public policy processes and outcomes. The seminar may focus on specific policy processes such as agenda-setting, policy formulation, or policy adoption, or it may focus on the politics of specific policy areas such as environmental programs, social legislation or regulation. May be repeated for credit when the subject matter is different.

448 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.

Political Science

449 Human Resources in the Public Sector (3)

(Same as Public Policy Administration 449.)

Prerequisite: Public Policy Administration 460 or consent of instructor. This course presents an overview of personnel and labor relations in the public sector. The course has particular emphasis 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.

450 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.

451 Seminar in Comparative Politics (3)

Research problems and design in comparative politics. May be repeated for credit when the subject matter is different.

452 Public Policy of Conservation and Sustainable Development (3)

(Same as Biology 445.) 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.

455 Directed Readings and Research in Comparative Politics (1-10)

Independent study through readings, reports, research projects, and conferences.

457 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.

458 Seminar in European Politics (3)

Prerequisite: Graduate standing or consent of instructor. Study of national political cultures, ideologies, regional security issues, national as well as supranational political institutions, and policy processes in Europe, with emphasis on post Cold-War developments.

459 Seminar in Latin American Politics (3)

Prerequisite: Graduate standing or consent of instructor. This course focuses on the twin issues of economic and political change in Latin America. It explores shifts from open free-market models and provides tools to assess recent transitions from authoritarianism to democracy. Country cases include Mexico, Brazil, Argentina, Chile. Two Central American countries, El Salvador and Nicaragua plus Cuba also will receive attention.

460 Proseminar in Political Theory (3)

Study of concepts and problems in normative political theory.

461 Seminar in Political Theory (3)

Research problems and design in political theory. May be repeated for credit when the subject matter is different.

462 Political Theory and Public Policy (3)

This course covers the ideological and ethical context of public policy and public policy analysis. Special attention is given to the way in which different contexts produce both different public policy and different ways of understanding public policy. Questions addressed include accountability, professionalism, freedom, justice, equality, and, in general, ethical issues faced by both the policy maker and the policy analyst.

Psychology

Faculty

Gary K. Burger, Professor*; Chairperson
Ph.D., Loyola University

James A. Breagh, Professor*+
Ph.D., Ohio State University

Robert J. Calsyn, Professor*; Director of Gerontology
Ph.D., Northwestern University

Edmund S. Howe, Professor Emeritus
Ph.D., University of London

Arthur L. Irion, Professor Emeritus
Ph.D., University of Iowa

Alan G. Krasnoff, Professor Emeritus
Ph.D., University of Texas

Miles L. Patterson, Professor*; Ph.D., Northwestern University

Patricia A. Resick, Professor*; Director, Center for Trauma Recovery
Ph.D., University of Georgia

Suzanna M. Rose, Professor*
Ph.D., University of Pittsburgh

Jayne E. Stake, Professor*; Director, Doctoral Program in Clinical Psychology Emphasis Area
Ph.D., Arizona State University

George T. Taylor, Professor*; Director, Doctoral Program in Experimental Psychology Emphasis Area;
Ph.D., University of New Mexico

Fred J. Thumlin, Professor*+
Ph.D., Washington University

Brian Vandenberg, Professor*
Ph.D., University of Rochester

James T. Walker, Professor Emeritus
Ph.D., University of Colorado

Dominic J. Zerbollo, Jr., Professor*
Ph.D., Michigan State University

Michael Harris, Associate Professor*+
Ph.D., University of Illinois-Chicago

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

Therese M. Macan, Associate Professor*
Director, Doctoral Program in Industrial/Organizational Psychology Emphasis Area; Ph.D., Rice University

Samuel J. Marwit, Associate Professor*
Ph.D., State University of New York at Buffalo

Paul W. Paese, Associate Professor*; Ph.D., University of Illinois

Vetta L. Sanders Thompson, Associate Professor*;
Ph.D., Duke University

Mark E. Tubbs, Associate Professor*
Ph.D., University of Houston

Jeffrey N. Wherry, Associate Professor; # Director, Kathy J. Weinman Children's Advocacy Centre
Ph.D., University of Southern Mississippi

William L. Kelemen, Assistant Professor
Ph.D., Baylor University

Donald D. Lisenby, Assistant Professor*;
Associate Chairperson
Ph.D., Washington University

Ann M. Steffen, Assistant Professor*
Ph.D., Indiana University

Allan G. Barclay, Adjunct Professor
Ph.D., Washington University

Larry O'Leary, Adjunct Associate Professor
Ph.D., Saint Louis University

David E. Smith, Adjunct Associate Professor
Ph.D., Colorado State University

Alene S. Becker, Adjunct Assistant Professor
Ph.D., University of Missouri-St. Louis

Ruth Davies, Adjunct Assistant Professor
Ph.D., Washington University

Louis R. Forbringer, Adjunct Assistant Professor
Ph.D., University of Akron

Michael G. Griffin, Adjunct Assistant Professor*
Ph.D., University of Missouri-St. Louis

Timothy J. Jovick, Adjunct Assistant Professor
Ph.D., St. Louis University

Lee Konzak, Adjunct Assistant Professor
Ph.D., University of Missouri-St. Louis

Gary A. Morse, Adjunct Assistant Professor
Ph.D., University of Missouri-St. Louis

Dean L. Rosen, Adjunct Assistant Professor
Ph.D., University of Illinois-Champaign-Urbana

Michael J. Schneider, Adjunct Assistant Professor
Ph.D., University of Missouri-St. Louis

Sandra K. Selgel, Adjunct Assistant Professor
Ph.D., St. Louis University

Mary K. Suszko, Adjunct Assistant Professor
Ph.D., University of Missouri-St. Louis

Michael Trusty, Adjunct Assistant Professor
Ph.D., University of Missouri-St. Louis

James H. Wallhemfachtel, Adjunct Assistant Professor,
Ph.D., St. Louis University

Audrey T. F. Wiener, Adjunct Assistant Professor
Ph.D., St. Louis University

* members of Graduate Faculty

+ Primary appointment in the School of Business Administration

Primary appointment in Kathy J. Weinman Children's Advocacy Centre

General Information

Degrees and Areas of Concentration The psychology department offers work leading to the B.A. degree in psychology. In conjunction with course work in the department, students have the opportunity to do research in a variety of areas, including animal and human learning, physiological, industrial/organizational, cognitive, personality-social, developmental, clinical, and community psychology. Students should consult with their adviser in selecting a program of study. However, the department offers a number of focused areas of study as an aid to students in selecting courses. These include developmental psychology, community mental health, and industrial/organizational psychology.

The department also offers a terminal M.A., as well as three Ph.D. programs: clinical psychology, experimental psychology, and industrial/organizational psychology.

Facilities Among the department's physical facilities are animal and human experimental laboratories and a wide range of research equipment, including portable videotaping systems. The department also has an electronics technician.

Minor in Psychology The department offers a minor in psychology to students with a special interest in this field but who wish to major in another discipline.

Undergraduate Studies

General Education Requirements

Majors must satisfy the University and College general education requirements. Courses in psychology may be used to meet the social sciences requirement.

Psychology

Majors may not take psychology courses on a satisfactory/unsatisfactory basis.

Undergraduate Psychology Office

Advisers in the Undergraduate Psychology Office (Room 108 Stadler Hall; 516-6676) are available to answer questions regarding career options in psychology, as well as provide specific information on degree requirements. The advisers can process all necessary materials for registration and graduation.

Degree Requirements

Bachelor of Arts in Psychology

At least 32, but no more than 45, hours must be completed in courses taught by or cross-listed with the psychology department. Candidates must have a cumulative grade point average of 2.0 or better in the major. Psychology courses taken on a satisfactory/unsatisfactory basis may not be applied to the major.

The following core curriculum is required:

Psych

- 3, General Psychology
- 201, Psychological Statistics
- 219, Research Methods

Note Students must take Mathematics 30, College Algebra, or the equivalent, before taking Psychology 201, Psychological Statistics. Psychology 201 is a prerequisite for Psychology 219.

In addition to the core curriculum, at least 22 additional credit hours in psychology must be taken. At least three of these courses totaling a minimum of nine hours must be at the 300 level. Multiple enrollments in Psychology 390, Directed Studies, count as no more than one 300-level course. No more than six hours of independent study courses (Psychology 295, Selected Projects in Field Placement, and Psychology 390, Directed Studies) may be counted toward the 32-hour minimum needed for graduation.

Majors must meet the University general education requirements and the requirements of the School or College from which they expect to receive their degree. After fulfilling general education and specific major degree requirements, students are to take the remaining hours required to complete the B.A. in Psychology from courses which the appropriate department has evaluated as being of university-level quality from one or more of the following areas or their university-quality equivalents at other institutions: anthropology/archaeology, art (appreciation, history, studio), biology, chemistry, communication, criminology and criminal justice, economics, English, foreign languages/literatures, history, mathematics/computer science, music (appreciation, history, performance), philosophy, physics, political science, social work, sociology, business, education, engineering, astronomy, geology and interdisciplinary.

Graduate School Preparation This program is designed for students planning to pursue doctoral studies in psychology. In addition to the core curriculum, students are advised to take Psych 361, History and Systems of Psychology, and at least one laboratory course in psychology.

Students intending to pursue graduate programs in clinical psychology should, in addition, take courses from the following group:

- 160, Social Psychology
- 211, Physiological Psychology
- 212, Principles of Learning
- 216, Personality Theory
- 245, Abnormal Psychology
- 270, Child Psychology
- 271, Adolescent Psychology
- 272, Adult Development and Aging

Students are also encouraged to become involved in independent research (Psych 390, Directed Studies).

Developmental Psychology This focus area is ideal for double majors in education and psychology and for psychology majors with a general interest in the area of development. In addition to the core curriculum, students are advised to take at least five of the following psychology courses with at least two at the 300 level:

- 216, Personality Theory
- 268, Human Growth and Behavior
- 270, Child Psychology
- 271, Adolescent Psychology
- 272, Adult Development and Aging
- 295, Selected Projects in Field Placement
- 305, Cognitive Development
- 306, Social Development
- 340, Clinical Problems of Childhood
- 349, Human Learning and Memory
- 356, Thinking and Cognition
- 373, Psychology of Aging
- 376, Mental Health and Aging

Community Mental Health Designed for students interested in counseling and community programs. This focus area is especially suitable for double majors in another social science, particularly in social work and sociology. In addition to the core curriculum, students are advised to take at least five of the following courses in psychology, with at least two at the 300 level:

- 160, Social Psychology
- 161, Helping Relationships
- 162, Applied Skills
- 225, Behavior Modification
- 232, Psychology of Victims
- 235, Community Psychology
- 245, Abnormal Psychology
- 256, Environmental Psychology
- 295, Selected Projects in Field Placement
- 340, Clinical Problems of Childhood
- 346, Introduction to Clinical Psychology
- 365, Psychological Tests and Measurements
- 376, Mental Health and Aging

Psychology

Industrial-Organizational This focus area is designed for students interested in human resource management, performance assessment, personnel training, organizational behavior, and related fields. This area would be suitable for psychology majors pursuing either a double major or a minor in business administration. In addition to the core curriculum, students are advised to take the following five psychology courses and at least two at the 300 level.

160, Social Psychology
222, Group Processes in Organizations
318, Industrial and Organizational Psychology
320, Personnel Assessment
365, Psychological Tests and Measurement

Students interested in this area might also wish to consider one or two of the following courses which are offered outside the psychology department:

BA 210, Management as a Behavioral Science I
BA 311, Management as a Behavioral Science II
BA 312, Industrial and Labor Relations
BA 319, Employee Training and Development
Sociology 304, Survey Research Practicum

Requirements for the Minor

Candidates must take a minimum of 15 hours in courses taught by or cross-listed with the psychology department, including at least six hours at the 300 level.

Candidates must have a cumulative grade point average of 2.0 or better in the minor. Psychology courses taken on a satisfactory/unsatisfactory basis may not be applied to the minor.

Graduate Studies

Admission Requirements

In addition to meeting the general admission requirements of the Graduate School, applicants should have completed undergraduate courses in general psychology, psychological statistics, and research methods. Each doctoral program has additional admission requirements specific to the emphasis area.

Teaching Assistantships Stipends for teaching assistantships are available for the doctoral programs only. Out-of-state tuition fees are waived for teaching assistants.

Applications Each program has its own deadline for completed applications. They are as follows:

Ph.D. in Psychology:

Clinical Psychology—January 1
 Industrial/Organizational Psychology—February 1
 Experimental Psychology—February 1
 M.A. in General Psychology—February 1

Master of Arts in Psychology

The University of Missouri-St. Louis offers a flexible program of studies leading to the Master of Arts degree in general psychology. Course work is possible, depending upon student demand, in several areas of experimental and applied psychology (e.g., psychobiology and animal behavior; human learning, memory, and cognition; personnel and industrial and organizational psychology, and social psychology). 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 either 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. Students must take the following set of quantitative courses:

421, Quantitative Methods I, and
422, Quantitative Methods II
 Two courses from the following:
Psych
405, Personality
412, Social Psychology
461, Learning
467, Conceptual Systems
468, Cognitive Processes

Elective courses will constitute the remaining hours needed for the degree. All programs of study for M.A. students require the approval of a member of the departmental M.A. advisory committee.

Ph.D. in Psychology

The doctoral program is organized around courses and directed research experience that emphasize the scientific approach to the study of psychology. Courses in the areas of quantitative methods, design and methodology, personality, motivation, social psychology, learning, and cognition are focal in the program.

Ph.D. Programs

There are three distinct programs within the Ph.D. Each has its own specific course and research requirements. Handouts describing these requirements are available from the department on request. The following briefly describes each program.

Clinical Psychology The clinical psychology program is accredited by the American Psychological Association and is patterned upon the scientist-practitioner model of clinical training. The clinical psychology program requires five years of full-time participation. Part-time students are not considered for admission. Through the medium of courses, practicum, and research experiences, this emphasis area prepares clinical psychologists for careers in research, teaching, and clinical practice.

Psychology

Students in the clinical psychology program participate for three and one-half 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.

General Experimental Psychology The general experimental program provides opportunities for study and research in the areas of cognitive psychology and behavioral neuroscience. Full-time enrollment encouraged, although part-time enrollment is possible.

Industrial-Organizational Psychology The Industrial-organizational psychology emphasis area is offered in cooperation with selected faculty from the School of Business to prepare students for careers in industry or academia. 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.

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 UM-St. Louis 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.

Career Outlook

The undergraduate major in psychology can lead to further training at the graduate level, function as a major within a general liberal arts degree, or offer some degree of specialization in such areas as developmental psychology, industrial/organizational psychology, and community mental health. Job opportunities with a bachelor's degree include working in business, social welfare, and probation and parole. For more career information see an adviser in the Undergraduate Psychology Office (Room 108 Stadler). To function specifically as a psychologist, a graduate degree is required, and students with such an interest should plan for this additional training.

Psychology

Course Descriptions

The following courses fulfill the Social Sciences [SS] breadth of study requirements: 3, 140, 160, 161, 162, 200, 201, 211, 212, 213, 215, 216, 219, 220, 222, 225, 230, 232, 235, 240, 245, 256, 268, 269, 270, 271, 272, 280, 295, 300, 301, 302, 305, 306, 310, 311, 312, 314, 318, 320, 340, 346, 349, 356, 357, 361, 365, 370, 373, 374, 375, 376, 390, 392.

The following course fulfills the Natural Science and Mathematics [SM] breadth of study requirements: 140.

3 General Psychology (3)

A broad introductory survey of the general principles of human behavior.

100, Applied Psychology (3)

Psychological perspective on human behavior. A comprehensive study of how psychology is used, how psychologists do their work, and how applications of psychology affect daily life. Special emphasis on clinical psychology, exercise and sport psychology, the psychology of work, and forensic psychology. The course is tailored to meet the interests of both the beginning and the advanced student. Experiential learning and field trips will be integral parts of this learning environment which uses London as an *in vivo* laboratory.

140 Female Sexuality (3)

(Same as Biology 140.) Prerequisites: Psych 3, or Biology 1, or its equivalent. This course will present a biological-psychological orientation toward the study of female sexuality. Topics include: sexual anatomy, hormonal influences on sexual behavior, psychosexual development, sexual attraction and relationships, sexual response and dysfunction, menstruation, pregnancy, menopause, reproductive health issues, and social issues in sexuality.

160 Social Psychology (3)

(Same as Sociology 160.) Prerequisite: Psych 3 or Sociology 10. Study of interaction between individuals and their social environment. Examination of basic principles, concepts, and methods.

161 Helping Relationships (3)

Prerequisites: Psych 3 and consent of instructor. Exploration of the basic elements contributing to effective helping skills. Course assignments include keeping a journal, writing papers, and a final exam. Readings, discussion, and guided experiences will be used to instill active listening and communication skills. Ethics of helping relationships will be emphasized.

162 Applied Skills (3)

Prerequisites: Psych 161 and consent of instructor. Builds upon Psych 161. Provides advanced readings and supervised experiences in helping relationships. Course assignments include readings, discussion, preparation of tapes for supervision, and a term paper. Designed for students interested in learning more about the psychological functioning of themselves and others. The course is also focused on increasing awareness of the dynamics of helping relationships.

200 Drugs and Behavior (3)

Prerequisites: Psych 3 and three other hours in psychology or biology. The course is designed to provide an introduction to the relationship between drugs and behavior. The emphasis will be on psychoactive drugs, alcohol, nicotine, as well as drug-like substances produced naturally in the body.

201 Psychological Statistics (4)

Prerequisites: Psych 3 and Math 30, or equivalents. (With laboratory.) Statistical methods in psychological measurement and analysis of psychological data. Frequency distribution analysis, sampling, test of significance, and correlation methods.

211 Physiological Psychology (3)

Prerequisites: Psych 3 or equivalent and Biology 1. A survey of the major areas of physiological psychology with an emphasis on their historical development.

212 Principles of Learning (3)

Prerequisite: Psych 3. A consideration of critical findings in learning.

213 Principles of Perception (3)

Prerequisite: Psych 3. Sensory and perceptual processes in human experience and behavior.

215 The Social Behavior of Animals (3)

Prerequisites: Two semesters of psychology and/or biology. An introduction to the social organization of a variety of different animal forms. The emphasis will be on nonhuman primates and other mammals through the social behavior of species of insects, fish, and birds. Aggression, sexual behavior, affiliation, maternal reactions, and the ontogeny of behavior are the primary areas to be studied. The orientation will be from both an ethologist's and animal psychologist's perspective.

216 Personality Theory (3)

Prerequisite: Nine hours of psychology. Structural and dynamic aspects of the human personality considered in the context of selected theoretical systems.

219 Research Methods (3)

(With laboratory.) Prerequisite: Psych 201. Research methods and analysis techniques used in psychological inquiry. Special emphasis placed on the logic of research design. Includes laboratory study of, and analysis of, selected methods.

Psychology

222 Group Processes in Organizations (3)

Prerequisite: Psych 3 or BA 210. 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.

225 Behavior Modification (3)

Prerequisite: Nine hours of psychology or consent of instructor. Methods, applications, and ethics of the use of behavior theory (primarily Skinner's operant conditioning) to the control of human behavior in a variety of settings including mental institutions, grade schools, universities, individual treatment, and communal living.

230 Psychology of Women (3)

Prerequisite: Psych 3. Evaluation of psychological theories and research regarding physiological, cognitive, and personality sex differences, female problems in adjustment, and clinical interventions for women.

232 Psychology of Victims (3)

Prerequisite: Psych 3. A review of the effects of crime, violence, natural disasters, and other traumas on psychological functioning. Prevention and therapy techniques will also be discussed.

235 Community Psychology (3)

Prerequisite: Psych 3. The analysis of psychological problems in terms of the social and situational forces that produce them. Community psychology analyzes the situational problems in living. Epidemiology of mental illness; group, family, and crisis intervention; mental health-care delivery; program evaluation and demonstration project research; role of psychologist as consultant and change agent; and utilization of nonprofessional manpower.

245 Abnormal Psychology (3)

Prerequisite: Psych 3. Introduction to major symptom complexes, theories of etiology, and treatment of behavior disorders.

256 Environmental Psychology (3)

Prerequisite: Psych 160 or Sociology 160. 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).

268 Human Growth and Behavior (3)

Prerequisite: Psych 3. A survey of development over the life span, with an emphasis on the developmental tasks and hazards of each period.

270 Child Psychology (3)

Prerequisite: Psych 3. Principles of biological, behavioral, and personality development from conception to puberty.

271 Adolescent Psychology (3)

Prerequisite: Psychology 3. Principles of biological, behavioral, and personality development from puberty to maturity.

272 Adult Development and Aging (3)

(Same as Gerontology 272.) Prerequisite: Psych 3. Personality, social, and physiological development from the onset of early adulthood through maturity and old age.

280 The Psychology of Death and Dying (3)

(Same as Gerontology 280.) Prerequisite: Psych 3. This course will address the psychological aspects of death and dying for both adults and children. The psychological reactions of terminally ill patients and their families will also be examined, and therapeutic interventions will be discussed.

295 Selected Projects in Field Placement (3)

Prerequisites: Junior standing, fifteen hours of psychology, and departmental approval. Selected options in field work placement experiences in various local agencies with training and supervision by faculty. May be repeated once for credit.

300 Neuropharmacology and Behavior (3)

Prerequisites: Psych 200 plus 6 additional hours of Psychology. The course is designed for advanced undergraduate students interested in a career in psychopharmacology or related fields in the health sciences. Emphasis will be on (1) underlying neural processes, (2) traditional laboratory methods as they have been adapted to the study of drugs, and (3) the unique contributions made by psychopharmacologists to both areas.

301 Advanced Statistics and Experimental Design (3)

Prerequisites: Twelve hours of psychology, including Psych 201. Statistical methods which are particularly useful in psychological research and the design of experiments appropriate to these methods.

302 Computers in Psychology (3)

Prerequisites: Nine hours of psychology including Psych 201 and junior or senior standing. The course is organized around computer applications in the behavioral sciences for the Macintosh machine. The goals for the course include familiarization with (1) MAC environment to prepare the student for the explosion of computer applications now and in the future, (2) the hardware and software products available for the working psychologist, and (3) the software programs of choice in the field through hands-on, individual use of the MAC. Some modest level of computer (MAC, PC, or mainframe) experience is recommended.

305 Cognitive Development (3)

Prerequisites: Junior standing and Psych 270, or consent of instructor. Data and theory concerned with development of perceptual, language, and symbolic abilities in infants and young children, including discussion of deprivation and enrichment of cognitive development.

Psychology

306 Social Development (3)

Prerequisites: Junior standing and Psych 270, or consent of instructor. Data and theory concerned with development of social behavior in infants and young children. Discussion will include the formation and interruption of attachment, the effects of social isolation, sex-role development, identification, and development of moral judgments in children.

310 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.

311 Psychology of Nonverbal Behavior (3)

Prerequisite: Psych 160 or Sociology 160. 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 © various theoretical views on nonverbal behavior and communication. Applications to various problems and settings in everyday life will also be pursued.

312 Social Cognition (3)

Prerequisites: Psych 160 or Sociology 160. Research and theory on the role of cognitive processes in social behavior. Topics include attitudes and attitude change, social inference, schemas, and cognitive links to behavior and affect.

314 Physiological Psychology (3)

(With laboratory.) Prerequisites: Psych 219, Biology 1, and Biology 3, or consent of instructor. The biological and physiological correlates of behavior. Special emphasis placed on the neural and endocrine systems.

318 Industrial and Organizational Psychology (3)

(Same as BA 318.) Prerequisites: Bus 210 and Math 105 or Psych 201. 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.

320 Personnel Assessment (3)

Prerequisite: Psych 318 or BA 309. This course will provide an in-depth study of several topics in the area of personnel psychology. Consideration will be given to issues such as assessment centers, employment interviewing, personnel appraisal, employment test validity, and legal issues relevant to personnel assessment.

340 Clinical Problems of Childhood (3)

Prerequisites: A total of twelve hours of psychology including Psych 3 and Psych 270. 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.

346 Introduction to Clinical Psychology (3)

Prerequisites: Nine hours of psychology, including Psych 216 or Psych 245. A conceptual framework for research, description, and understanding of clinical phenomena. Assessment, interviewing, the clinical use of tests, and psychological approaches to treatment.

349 Human Learning and Memory (3)

Prerequisites: Nine hours of psychology or consent of instructor. A survey of contemporary research, theory, and facts pertaining to the acquisition, retention, and forgetting of information.

356 Thinking and Cognition (3)

Prerequisites: Nine hours of psychology or consent of instructor. An introduction to modern analytical approaches to the psychology of thinking: problem solving, reasoning, categorizing, judgment, attention, and consciousness. Particular attention is paid to the mental structures and operations involved in the encoding, abstraction, representation, transformation, and retrieval of knowledge.

357 Psychology of Learning (3)

(With laboratory.) Prerequisite: Psych 219. Major theoretical positions and experimental conditions of learning. Includes laboratory study of selected problems.

361 History and Systems of Psychology (3)

Prerequisites: At least fifteen hours of psychology. The course should be taken no sooner than the winter term of the junior year. Historical antecedents of contemporary psychology, including a survey of systems and schools of psychology.

365 Psychological Tests and Measurements (3)

(With laboratory.) Prerequisites: Psych 201 and Psych 219, or consent of instructor. Survey of psychological testing and principles of test construction and evaluation. Laboratory experience in construction, administration, and interpretation of selected tests.

373 Psychology of Aging (3)

(Same as Gerontology 373.) Prerequisite: Nine hours of psychology or consent of instructor. This course focuses on the developmental changes associated with aging including sensation, memory, emotions, and attitudes.

Psychology

374 Introduction to Clinical Neuropsychology (3)

Prerequisite: Nine hours of psychology. A survey of neuropsychological findings concerning relationships between brain and behavior. Topics will include brain function, neuroanatomy, neurological syndromes, and methods of neuropsychological assessment.

375 The Social Psychology of Disabilities (3)

Prerequisite: Sociology 160 or Psych 160 or consent of instructor. (Same as Sociology 375). A social psychological and micro-sociological examination of attitudes and behaviors affecting persons with disabilities. Topics include stigma and empowerment, adaptive behaviors, stereotypes and prejudices, and images of disabilities in popular culture and mythology. The course will address the experience of disability and its social consequences for the lives of persons with disabilities.

376 Mental Health and Aging (3)

(Same as Gerontology 376.) Prerequisites: Consent of instructor plus one of the following: Psych 272, Psych 373, or graduate standing. A survey of recent theory and research in mental health issues for older populations. The primary focus is on major psychological disorders prevalent among the elderly and on treatment approaches for elders.

390 Directed Studies (1-5)

Prerequisite: Consent of instructor. Directed reading and research. May be repeated for a maximum total of ten hours.

392 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.

403 Psychopathology (3)

Prerequisite: Admission to Clinical Psychology program or permission of 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.

404 Introduction to Clinical Assessment I (3)

Prerequisite: Admission to Clinical Psychology program. Fundamentals of clinical assessment with emphasis on interviewing and the measurement of cognitive functioning.

405 Personality (3)

Prerequisite: Admission to Clinical Psychology program or permission of instructor. Current theories and research in personality. Major psychodynamic, trait, phenomenological, cognitive, and social learning approaches are covered, with a focus on personality structure and individual differences, personality processes and dynamics, development, psychopathology, and change.

406 Introduction to Clinical Assessment II (3)

Prerequisite: Psych 404. Theory and techniques of personality assessment with emphasis on projective personality tests.

407 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.

410 Women and Mental Health (3)

Prerequisite: Admission to the doctoral program in Clinical Psychology or consent of instructor. 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.

412 Social Psychology (3)

Prerequisite: Consent of instructor. A review of key areas in contemporary theory and research in social psychology.

418 Seminar in Human Sexuality (3)

Prerequisite: Admission to the doctoral program in Clinical Psychology or consent of instructor. Review of theory and research in human sexuality from physiological, psychological, and social perspectives. Implications for the assessment and treatment of sexual dysfunction are considered.

419 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.

421 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.

422 Quantitative Methods II (4)

(With laboratory.) A comprehensive study of the use of multivariate statistics in data analysis. Topics include multiple regression, canonical correlation, factor analysis, discriminant analysis, and the multivariate analysis of variance.

429 Psychometric Theory (3)

Prerequisite: Consent of instructor. A consideration of test reliability, validity, and construction from the standpoint of modern psychometric theory and a survey of unidimensional and multidimensional scaling procedures.

431 First Year Clinical Supervision (3)

Prerequisite: Admission to Clinical Psychology program. Supervised experience in clinical practice for first year students in clinical psychology program.

432 Clerkship I (1)

Prerequisites: Admittance to Clinical Psychology program. Supervised experience in a clinical placement.

Psychology

433 Clerkship II (1)

Prerequisites: Psych 432. Supervised experience in a clinical placement.

434 Seminar: Introduction to Psychotherapy (3)

Prerequisite: Admittance to Clinical Psychology program and Psych 406. This course considers theories of personal change and their practical application in psychotherapy. Topics include the development of the therapist-client relationship, case management, process and outcome research, and ethical principles for the psychotherapist.

435 Clerkship III (1)

Prerequisites: Psych 432 and 433. Supervised experience in a clinical placement.

436 Practicum: Introduction to Psychotherapy I (3)

Prerequisites: Psych 431 or the equivalent. Supervised experience in clinical practice.

437 Practicum: Introduction to Psychotherapy II (3)

Prerequisite: Psych 436. Continuation of Psych 436.

438 Thrd Year Clinical Supervision (1-3)

Prerequisite: Psych 437. Advanced training in psychological assessment and intervention for third-year students in clinical psychology program.

439 Summer Supervision (1)

Prerequisite: Psych 431. Supervision experience in clinical practice at all graduate year levels during the summer months. Can be repeated for credit.

440 Principles of Family Therapy (3)

Prerequisite: Psych 434. Survey of research and theory underlying models of family interaction. Practical application of specific techniques to the family system is emphasized.

441 Seminar: Cognitive and Behavior Theories (3)

Prerequisite: Admittance to Clinical Psychology program or permission of instructor. A course on cognitive and behavioral theories and their applications to clinical populations. Emphasis is on a critical review of research on cognitive and behavioral therapy procedures.

442 Seminar: Cognitive and Behavior Therapy (3)

Prerequisites: Admittance to doctoral program in Clinical Psychology and Psych 441. The practice of behavior therapy. Students will learn to implement behavioral assessment and therapy strategies in clinical settings.

443 Advanced Clinical Supervision (1-3)

Prerequisite: Psych 438. Advanced training in psychological assessment and intervention for fourth-year students in clinical psychology program.

444 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.

445 Seminar: Community Psychology (2)

Critical examination of principles and application of preventive intervention in social systems and community mental-health programming.

446 Principles of Group Psychotherapy (3)

Prerequisite: Psych 432 or 434. Investigation of the models and principles of group intervention techniques.

447 Topics in Social Psychology (3)

Focused and in-depth analysis of contemporary problems in social psychology. One or more specific topic areas will be covered in a given semester. May be taken twice for credit.

448 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.

449 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.

450 Clinical Internship I (1)

Prerequisite: Consent of adviser. Supervised training in an affiliated agency or organization following completion of two years of course work.

451 Clinical Internship II (1)

Prerequisites: Psych 450 and consent of adviser. Supervised training in an affiliated agency or organization following completion of two years of course work.

452 Survey of Industrial/Organizational Psychology (3)

A review of theoretical, practical, and legal issues faced by personnel specialists. Topics covered include personnel selection and testing, performance appraisal and criteria development, leadership, motivation, job design, and job satisfaction.

454 Seminar: Personnel Psychology (3)

An analysis of theories and research in personnel and industrial psychology. Topics include testing, assessment centers, performance appraisal, and interviewing.

455 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 relation between organizations and their environment.

Psychology

456 Seminar: Employment Interviewing (3)

A survey of the theory, research, and technology of employment interviewing. Topics include selection interviewing and job analysis interviewing.

457 Seminar: Special Topics in Industrial Psychology (3)

A seminar of selected issues and methods in personnel psychology.

458 Seminar: Special Topics in Organizational Psychology (3)

A seminar of selected issues and methods in organizational psychology.

459 Practicum in Industrial/Organizational Psychology (1-4)

Supervised experience in personnel or human resource management.

460 Internship in Industrial/Organizational Psychology (1-4)

Prerequisite: Consent of advisor and admission to the graduate program in I/O psychology. Supervised field experience in human resource management or organizational psychology areas following completion of at least two years of course work.

461 Seminar: Learning (3)

A critical examination of contemporary problems in learning.

462 Seminar: Motivation (3)

A critical examination of contemporary problems in motivation.

464 Seminar: Perception (3)

A critical examination of contemporary problems in perception.

465 Seminar: Physiological Psychology (3)

A critical examination of contemporary problems in physiological psychology.

466 Seminar: Developmental Psychology (3)

A critical examination of contemporary problems in developmental psychology.

467 Seminar: Conceptual Systems (3)

A critical examination of the evolution of contemporary theory in psychology.

468 Seminar: Cognitive Processes (3)

A critical examination of contemporary problems in cognitive processes.

469 Seminar: Animal Behavior (3)

A critical examination of contemporary problems in animal behavior.

470 Seminar: Behavior Genetics (2)

A critical examination of contemporary problems in behavior genetics.

471 Seminar: Comparative Psychology (3)

A critical examination of contemporary problems in comparative psychology.

472 Special Topics in Psychology (3)

A seminar of selected issues and methods in psychology.

474 Clinical Research in Applied Settings (3)

Prerequisite: Psychology 421 and 422. 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.

475 Introduction to Evaluation Research Methods (3)

(Same as Sociology 475, Public Policy Administration 475, and CCJ 475.) 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.

476 Seminar in Clinical Child Psychology (3)

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.

477 Principles of Child Psychotherapy (3)

Prerequisites: Psych 434 and 476. The course will focus on treatments for children with clinical problems. Play therapy, family therapy, and behavioral therapy techniques will be reviewed. Special attention will be given to differentiating when to use each modality, as well as how they can be effectively combined.

478 Directed Research in Industrial/Organizational Psychology (1-4)

Independent study of an issue in industrial/organizational psychology through the application of research techniques.

479 Directed Readings in Industrial/Organizational Psychology (1-4)

Independent literature review of a topic in industrial/organizational psychology.

480 Research Methods in Clinical Psychology (3)

Prerequisite: Psychology 421 or equivalent. An overview of research methods that are appropriate for clinical and other nonlaboratory settings.

481 Principles of Scientific Inquiry (3)

Problems in the logic of inquiry and understanding in science.

482 Ethics for Psychologists (1)

Prerequisite: Admittance to doctoral program in Clinical Psychology. A study of ethical standards as they relate to teaching, research, and professional practice.

Psychology

483 Directed Research (1-10)

484 Directed Readings (1-10)

485 Research Team I (2)

Prerequisite: Admittance to doctoral program in Clinical Psychology. Group supervision of beginning research leading to the Independent Research Project.

486 Research Team II (1)

Prerequisite: Completion of Independent Research Project or Third Year standing in doctoral program in clinical psychology. Group supervision of advanced research leading to the dissertation proposal.

491 M.A. Thesis Research (1-10)

492 Ph.D. Thesis Research (1-10)

494 Integrative Research Seminar in Gerontology (3)

(Same as Gerontology 494.) Prerequisite: A graduate level research methods course (e.g., PPA 401) This seminar requires students to critically examine research in gerontology in terms of methodology. Topics covered include: reliability and validity of measures; internal and external validity; needs assessment; treatment implementation and process evaluation; and qualitative methods.

495 Practicum in Gerontology (3)

(Same as Gerontology 495.) Prerequisite: Consent of instructor. This course provides supervised work experience in an agency that serves the elderly.

496 Gerontology Colloquium (1)

(Same as Gerontology 496.) Presentation of current topics in gerontology by faculty and invited speakers. May be repeated for a total of three credits.

Social Work

Faculty

Joan Hashimi, Associate Professor*; Chairperson,
Ph.D., Washington University
Muriel Pumphrey, Professor Emeritus*
D.S.W., Columbia University
Roosevelt Wright Jr., Professor
Ph.D., University of Wisconsin at Madison
Norman Flax, Associate Professor*
Ph.D., St. Louis University
Lois Pierce, Associate Professor*
Ph.D., Washington University
Uma Segal, Associate Professor*
Ph.D., Washington University
Margaret Sherraden, Associate Professor*
Ph.D., Washington University
Beverly Sporleder, Lecturer
M.S.W., Washington University

* members of Graduate Faculty

The social work faculty reflects a cross section of the social work profession. Many specialties are represented, including child welfare, gerontology, community organization, and health care policy. The faculty, in addition to maintaining high standards of teaching, provides many hours of community service and practice to the numerous social service agencies in St. Louis. Research is also an integral part of the faculty's activities. Many papers are presented by our faculty at local, national, and international meetings and published in professional journals.

General Information

Degrees and Areas of Concentration The Department of Social Work offers courses leading to a Bachelor of Social Work degree (B.S.W.) and a Graduate Certificate in Gerontological Social Work. The B.S.W. program is fully accredited by the Council on Social Work Education. The faculty stresses the scientific and applied aspects of social work. Professional social work education enables students to integrate the knowledge, values, and skills of the profession into competent practice. Throughout, the contribution of arts and sciences toward a well-rounded liberal arts education is emphasized. A minor in social work is also offered.

The department's approach is reflected in an emphasis on the development of theoretical and methodological tools. There is a strong emphasis on practice, with community and social agency field work as important parts of the program. Many faculty members are engaged in research on urban-related issues and work with various urban agencies, particularly in the areas of health care, family violence, social welfare, gerontology, and education.

Social work majors should obtain a copy of the Student Handbook and see a social work advisor for advisement. Students must set up an appointment with the practicum coordinator one semester prior to enrolling in the practicum and attend a series of prepracticum classes.

Undergraduate Studies

General Education Requirements

Majors must satisfy the University and College general education requirements, except that proficiency in a foreign language is not required.

Courses required for the B.S.W. degree may not be taken on a satisfactory/unsatisfactory basis except Social Work 320 and Social Work 321.

Degree Requirements

Students entering UM-St. Louis as freshman should indicate a pre-social work major. Transfer students must apply to the Social Work program when they apply to the university. Admission to the program is conditional upon the successful completion of all necessary requirements.

Requirements for Admission to the Social Work Program

1. Junior Standing
2. Submission of:
 - a. Application for admission to social work program
 - b. Transcript of all university work
 - c. Two letters of reference: one from a college or university professor and one other, preferably from a work or volunteer experience supervisor.
3. Completion of Social Work 100, 150, and 151 or their equivalents or completion of an AA in Human Services.
4. Completion with a "C" in all courses listed as prerequisites for Social Work 210, 280 and 285.
5. Applicants may be asked to meet with the social work admissions committee.

Bachelor of Social Work Students completing this degree may enter beginning positions as social workers or choose to enter professional schools of social work, working toward eventual careers in supervision, administration, research, and other specialized areas of practice. Candidates for this degree program must complete the core requirements including the following social work courses:

- 100, Introduction to Social Service
- 150, Social Welfare as a Social Institution
- 151, Social Welfare as a Social Institution Laboratory
- 210, Introduction to Interventive Strategies
- 280, Human Behavior in the Social Environment
- 285, Social Issues and Social Policy Development
- 300, Interventive Strategies for Social Work with Individuals, Families, and Groups
- 305, Interventive Strategies for Social Work with Organizations and Communities
- 320 and 321, Supervised Field Experience in Social Work I and II
- 320a and 321a, Integrative Field Experience Seminar I and II

A minimum of 34 hours and a maximum of 50 hours may be taken in social work. A minimum of 36 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.

Social Work

Related Area Requirements

The following courses, or their alternatives, are required:

Biology

- 1, General Biology, or
- 11, Introductory Biology I

Econ

- 40, Introduction to the American Economy

PolSci

- 11, Introduction to American Politics

Psych

- 3, General Psychology

Sociology

- 10, Introduction to Sociology
- 160, Social Psychology
- 220, Sociological Statistics

Either

Sociology

- 230, Research Methods and
- 231, Research Methods Lab or

Social Work

- 330, Research Design in Social Work and one additional biology course from the following:
- 110, Human Biology
- 113, Human Physiology and Anatomy I
- 114, Human Physiology and Anatomy II
- 115, Human Heredity and Evolution
- 120, Environmental Biology
- 140, Female Sexuality

At least nine additional hours must be taken in social work, sociology, political science, psychology, women and gender studies, anthropology, criminology and criminal justice, or economics at the 100 level or above. Hours taken in social work will apply toward the maximum of 50 hours that may be taken in social work courses.

After fulfilling the general education and specific major degree requirements, students are to take the remaining 29 hours required to complete the Bachelor of Social Work degree from courses, which the appropriate department has evaluated as being of university-level quality, from one or more of the following areas or their 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, women and gender studies business, education, engineering, and interdisciplinary. The social work department may require students to pass a placement test in order 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 cumulative grade point average of 2.5 or better in all course work specifically required for the major, with satisfactory grades in practicum.

Note Taking Anthropology, biological sciences, and Spanish courses is strongly recommended by graduate social work schools.

Requirements for the Minor in Social Work

Candidates must complete the following social work courses:

- 100, Introduction to Social Service
- 150, Social Welfare as a Social Institution
- 210, Interventive Strategies in Social Work Practice
- 285, Social Issues and Social Policy Development and one course at the 200 level or above.

Graduate Certificate in Gerontological Social Work

The Graduate Certificate in Gerontological Social Work is a program designed for students who wish to pursue advanced study in social work practice with the elderly. While the program draws from several disciplines, the focus is on practice and/or administration in gerontological settings. The program can be taken by itself or in conjunction with the pursuit of a graduate degree in another field.

Admission Requirements

Program applicants must have the following:

- 1) baccalaureate degree;
- 2) a 2.75 grade point average (students with exceptions should contact the director of the Gerontology program);
- 3) official transcripts of all previous undergraduate/graduate work;
- 4) three letters of recommendation.

Certificate Requirements

Eighteen credit hours are required to complete the certificate. Students must complete 15 hours of required core courses and three hours of gerontology electives at the 300 level or above.

Required Core Courses

Social Work

- 316, Clinical Gerontology

Psych

- 373, Psychology of Aging, or Sociology 361, Social Gerontology

PolSci

- 444 (or Public Policy Administration 444), Public Policy and Aging

Social Work

- 330, Research Design in Social Work
- 491, Professional Leadership Practice

Career Outlook

The bachelor of social work program is designed to prepare persons for employment in social welfare agencies, schools, hospitals, correctional institutions, or day care, geriatric, or rehabilitation centers. Individuals currently working in social welfare settings can improve their skills or increase their opportunities for job advancement.

Social Work

Course Descriptions

The following courses fulfill the Social Sciences [SS] breadth of study requirements: 100, 150, 210, 265, 275, 280, 285, 290, 312, 314, 316, 322, 350, 390.

100 Introduction to the Social Services (3)

Prerequisite: Sociology 10 or Psychology 3. Examination of the network of social programs and services presently operating in modern urban communities and the various roles and functions performed by the helping professions. Students will be introduced to basic values, skills, and training involved in a helping relationship, as well as the characteristics of both clients seeking help and of professionals and paraprofessionals engaged in the helping process.

150 Social Welfare as a Social Institution (3)

Prerequisite: Social Work 100 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, elderly, women, Hispanic and Native Americans; and 4) the development of social work as a profession. This course may be taken by non-social work majors.

151 Social Welfare as a Social Institution Laboratory (1)

Prerequisites: Simultaneous with Social Work 150. The lab session will be used for field trips to social agencies. This course is required for all Social Work majors.

210 Introduction to Interventive Strategies for Social Work Practice (3)

Prerequisites: Social Work 150, Sociology 10 and Psychology 03, 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.

265 Human Sexuality (3)

Prerequisite: Social Work 280, Biology 110, or consent of instructor. This course will provide knowledge about physical, psychophysiological, and legal aspects of human sexuality. The range of human sexual behavior and sexual dysfunctions will be discussed. This course will also help students learn how to help clients recognize and express their concerns in sexual matters, recognize limits of their own intervention skills, and make appropriate referrals.

275 Stress and Stress Management (3)

Prerequisite: Social Work 280 or Psychology 268. This course will explore the causes of stress, with special emphasis given to stressors on the job; linkage between stress and mental and physical disorders; and stress management techniques such as cognitive restructuring, environmental change, progressive relaxation, and biofeedback.

280 Human Behavior in the Social Environment (3)

Prerequisite: Biology 1 and Sociology 160 or Psych 160 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.

285 Social Issues and Social Policy Development (3)

Prerequisites: Social Work 150, PoSci 11, and Econ 40. 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.

290 Selected Topics in Social Work Practice (3)

Prerequisite: Social Work 210 or Social Work 285, or consent of instructor. A course examining special topics in social work practice. Relative theories, strategies, and skills will be presented for topics selected. Course may be taken more than once for credit as different topics are offered.

300 Interventive Strategies for Social Work with Individuals, Families, and Groups (3)

Prerequisites: Social Work 210, and Social Work 280. This course continues the presentation of basic knowledge and practice skills for entry level professional practice begun in Social Work 210. 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.

305 Interventive Strategies for Social Work with Organizations and Communities (3)

Prerequisites: Social Work 285 taken prior to or concurrently, senior standing. Continuation of basic practice skills with emphasis given to analysis and intervention at the organization and community levels. Includes assessment of available services, organization of client groups, efforts to modify resources for a client group unable to intervene effectively on its own behalf. Also emphasis on helping the practitioner evaluate the impact of intervention.

308 Leadership and Management in Nonprofit Organizations (3)

(Same as Public Policy Administration 394, PoSci 394, Sociology 308.) Prerequisite: Junior standing. This course 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: (1) the dynamics, functions and membership structure of NPOs, especially staff-board and other volunteer relations; (2) governance and management of NPOs; (3) resource mobilization; and (4) program development management and evaluation.

Social Work

312 Women's Social Issues (3)

Prerequisite: Social Work 280. This course will help students become more sensitive to the social and welfare concerns of women. The discussions will include work and pension concerns, welfare benefits, family responsibilities (in the new dual career family), family violence, and special health and mental health service needs. Emphasis will be placed on integrating a knowledge base of women's needs with professional social work practice.

314 Social Work with Culturally Diverse Populations (3)

Prerequisite: Sociology 10. Focuses on increasing knowledge, understanding, and skills for working with diverse groups in US society. Emphasis is placed on economically disadvantaged and oppressed groups, including racial/ethnic minority groups, immigrants, and other vulnerable populations. The objective of the course is to increase knowledge for effective culturally-sensitive practice.

316 Clinical Gerontology (3)

(Same as Gerontology 316.) Prerequisite: Social Work 280 or Psych 268. This course includes: 1) an examination of the social, economic, health, and psychological problems specific to an older adult population; 2) consideration of special needs of the frail elderly, to include problems in long-term care; and 3) the special practice skills (individual, group) needed for intervention with older adults.

320 Supervised Field Experience in Social Work I (4)

Prerequisites: Social Work 300 must be taken prior to or concurrently, Social Work 320a 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.

320a Integrative Field Experience Seminar I (2)

Prerequisites: Consent of instructor and concurrent registration in Social Work 320. 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.

321 Supervised Field Experience in Social Work II (4)

Prerequisites: Social Work 320, Social Work 320a, 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 Social Work 320 or change agencies with the consent of the instructor.

321a Integrative Field Experience Seminar II (2)

Prerequisites: Consent of instructor and concurrent registration in Social Work 321. This seminar is a continuation of Social Work 320a. Classroom discussion will emphasize administration and community organization issues.

322 Child Welfare Practicum Seminar (3)

Prerequisites: Social Work 320 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.

330 Research Design in Social Work (3)

Prerequisites: Satisfaction of Math Proficiency requirement and Sociology 220. 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.

350 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.

390 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.

391A Management Issues in Non-profit

Organizations: Staff Management Issues (1)

Prerequisite: Junior Standing. (Same as Political Science 391A and Public Policy Administration 391A). This course addresses issues involved in managing staff in non-profit 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.

391B Management Issues in Non-profit

Organizations: Legal Issues in Governing and Managing Non-profit Organizations (1)

Prerequisite: Junior Standing. (Same as Political Science 391B and Public Policy Administration 391B). This course addresses legal issues involved in managing and governing non-profit 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 non-profit law.

391C Management Issues in Non-profit

Organizations: Financial Issues (1)

Prerequisite: Junior Standing. (Same as Political Science 391C and Public Policy Administration 391C). This course addresses financial issues involved in governing and managing non-profit 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.

Social Work

396 American Philanthropy and Non-profit Resources Development (3)

Prerequisite: Junior standing or consent of instructor. (Same as Political Science 396 and Public Policy Administration 396). This course addresses the history, philosophy, roles and scope of philanthropy in the United States, including its role in the non-profit, 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.

420 Medical Social Work (3)

This course is for new health care professionals presently at work in health care settings or for upper level undergraduate students interested in medical social work. The course will include: major changes in health care legislation, advances in medical technology (those aspects important to the medical social worker), an overview of the organization of the health care system, and social work roles and tasks in health care settings.

Sociology

Faculty

K. Peter Etzkorn, Professor*; Chairperson
Ph.D., Princeton University
William P. Darby, Professor; Dean, Joint Engineering Program
Ph.D., Carnegie Mellon University
Jerome Himelhoch, Professor Emeritus*
Ph.D., Columbia University
George J. McCall, Professor*
Ph.D., Harvard University
Herman W Smith, Professor*
Ph.D., Northwestern University
Harry H. Bash, Associate Professor Emeritus*
Ph.D., University of Pennsylvania
Sarah L. Boggs, Associate Professor Emeritus*
Ph.D., Washington University
Frances Hoffmann, Associate Professor*;
Ph.D., University of Oregon, Eugene, Oregon
Nancy M. Shields, Associate Professor*; Associate Dean, UM-St. Louis/Washington University Joint Undergraduate Engineering Program
Ph.D., Southern Illinois University-Carbondale
Chikako Usui, Associate Professor*
Ph.D., Stanford University
Gretchen Arnold, Adjunct Assistant Professor
Ph.D., Boston University
Teresa J. Guess, Assistant Professor
Ph.D., University of Missouri-Columbia
Susan Tuteur, Adjunct Assistant Professor
Ph.D., University of Chicago
Avril Weathers, Adjunct Assistant Professor
Ab.D., Northwestern University
Miranda Duncan, Lecturer
LL.B., University of California-Berkeley
Robert Keel, Lecturer
AbD., Washington University
Adinah Raskas, Lecturer
M.A., St. Louis University

*members of Graduate Faculty

The faculty prides itself on its commitments 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 publication credits of faculty in journals and books or presentations at national and international meetings.

General Information

Degrees and Areas of Concentration

The sociology department offers courses leading to the B.A. in sociology, the B.S. in sociology; in cooperation with the School of Education, the B.A. in sociology with teacher certification; in cooperation with the School 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 & Gender Studies, and International Studies. The sociology department is accredited by the American Sociological Association. 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, urban, intergroup, political or community issues.

Since the sociology department also offers work leading to the M.A. degree in sociology (see below), opportunities are available for graduate-level instruction to selected undergraduate students. The graduate emphasis areas include (1) demography and population; (2) social problems and social change; (3) social and family networks; and (4) applied analysis, measurement, and program evaluation. Undergraduate students with exceptional records at UM-St. Louis are encouraged to enroll in graduate-level classes in the last year of their undergraduate program. Graduate credit for such course work is given only in the student's last undergraduate semester and each course must be approved in advance by the Graduate School on the recommendation of the department.

In addition to a balanced program of basic undergraduate to advanced graduate courses, the department provides a range of opportunities for students to develop concrete research design and data analysis skills. Focused topics courses, 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. Currently, faculty are investigating such areas as homelessness, industrial competitiveness, racial and ethnic conflict, international business, popular culture, and mental illness. 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, Engineering, Political Science, Women's & Gender Studies, Gerontology, Public Policy Administration, the Bush Center for Law, Social Change and Conflict Resolution, the Center for International Studies, and the Dispute Resolution Program. The department currently includes nine full-time and six part-time members.

A minor in sociology is available to students majoring in related areas.

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. The awardee is selected by the faculty on the basis of GPA, and the award consists of first-year membership dues in the Sociology Alumni Association and a cash award.

Sociology

Honors Program Student Association Awards are given annually to exceptional seniors and graduate students. The awards include student affiliate memberships in the Honors Program Student Association of the American Sociological Association to aid the establishment of a network of colleagues who are at similar points in their career development.

The Alumni Agent Scholarship and the **Sociology Alumni Scholarship** are given to deserving junior or senior sociology majors annually. The awardees are selected by the faculty on the basis of merit, and the scholarships consist of a stipend for books and educational materials.

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 junior sociology major with the best overall record in Sociology 220, 230, and 231. This award carries tuition remission for a three-credit hour Sociology 350, Independent Study, to act as an undergraduate course assistantship for Sociology 220, 230, and 231.

Department Honors The sociology department will award Department Honors to 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 Sociology 350, Special Study.

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 10 hours of junior college transfer credit may be applied toward the combined minimum of required credit hours for the B.A. (31 credit hours) or B.S. (37 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.

Degree Requirements

Bachelor of Arts in Sociology

In addition to specific Baccalaureate Degree Requirements of the College of Arts and Sciences, candidates must complete 31 hours of sociology course credit including the following required core courses:

10, Introduction to Sociology
210, Sociological Theory
220, Sociological Statistics, or
Math 31, Elementary Statistical Methods, or
Math 102, Finite Mathematics I
230, Research Methods
231, Laboratory in Research Methods

Note Students planning to continue their studies in graduate school are urged to meet the statistics requirement by taking Sociology 220 rather than one of the optional mathematics courses.

Beyond these core courses, B.A. sociology majors are required to take at least 18 additional hours of sociology courses, selected according to career objectives, of which at least six hours are at the 300 level (other than Sociology 350, Special Study). No more than three hours in sociology below the 100 level can count toward this 18-hour requirement.

Applied training through one or more practicum courses may be used as part of the requirements for the major.

A minimum of 2.0 average must be maintained for all sociology courses.

After fulfilling the general education and specific major degree requirements, students are to take the remaining 49 hours required to complete the B.A. degree from courses which the appropriate department has evaluated as being of university-level quality, from one or more of the following areas or their 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, and inter-disciplinary.

Bachelor of Science in Sociology

In addition to specific Baccalaureate Degree Requirements of the College of Arts and Sciences, Bachelor of Science in Sociology candidates must complete a total of 37 hours of sociology course credit, including the following core courses:

10, Introduction to Sociology
210, Sociological Theory
220, Sociological Statistics
230, Research Methods
231, Laboratory in Research Methods

and six credit hours from sociology research courses such as

298, Practicum in Field and Laboratory Research
304, Survey Research Practicum
330, Field Research in Criminology
331, Qualitative Methods in Social Research
346, Demographic Techniques
370, Selected Topics in Techniques of Sociological Research

Practicum courses in other departments may be applied to the required six hours of research courses with the written consent of the student's faculty adviser

Sociology

Six additional sociology courses (18 hours), chosen with the concurrence of the student's faculty adviser from offerings of the department's focused areas of study, are required for the B.S. degree in sociology, including a minimum of two courses (six hours) at the 300 level (exclusive of Sociology 350, Special Study).

Also required are:

Econ 40, Introduction to the American Economy
Psych 3, General Psychology
PoSci 11, Introduction to American Politics

one of the following philosophy courses:

60, Logic and Language
282, Philosophy of Social Science

and one of the following political science courses:

140, Public Administration
240, Bureaucratic Politics
245, Urban Administration
343, Studies of Policy Formation

Related Area Requirements for the B.S. Degree in Sociology students must complete five courses in related fields, drawn from at least four of the following nine areas:

1) Computer Science:

122, Computers and Programming
125, Introduction to Computer Science

2) Economics

40, Introduction to the American Economy
51, Principles of Microeconomics
52, Principles of Macroeconomics

3) Mathematics:

80, Analytic Geometry and Calculus I
175, Analytic Geometry and Calculus II
180, Analytic Geometry and Calculus III
202, Introduction to Differential Equations

4) Philosophy

60, Logic and Language
160, Formal Logic
260, Advanced Formal Logic
280, Philosophy of Science
282, Philosophy of Social Science

5) Political Science:

11, Introduction to American Politics
135, Introduction to Urban Politics

6) Probability and Statistics:

232, Applied Statistics II
320, Mathematical Statistics II
321, Mathematical Statistics III

7) Psychology

3, General Psychology
160, Social Psychology
256, Environmental Psychology

8) Public Policy and Administration:

140, Public Administration
240, Bureaucratic Politics

245, Urban Administration
PoSci 346, Urban Planning and Politics

9) International Studies:

Anthropology 25, World Cultures
Comm 332, Intercultural Communication
Econ 238, Comparative Economic Systems
Geography 102, World Regions
PoSci 180, World Politics

Courses in other Departments or Division may be applied to these requirements with written consent of the student's faculty adviser.

After fulfilling the general education and specific major degree requirements, students are to take the remaining hours required to complete the B.S. degree from courses which the appropriate department has evaluated as being of university-level quality, from one or more of the following areas or their university-quality equivalents at other institutions: anthropology/archaeology, art (appreciation, history, studio), biology, chemistry, communication, criminology and criminal justice, economics, English, foreign languages/literatures, history, mathematics/computer science, music (appreciation, history, performance), philosophy, physics, political science, psychology, social work, sociology, business, education, engineering, and interdisciplinary.

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 advisor as well as a faculty advisor in the Department of Sociology.

Degree Requirements

A program of 159 semester hours is required for the Bachelor of Science in Civil Engineering and the Bachelor of Science in Sociology. Earned alone the Bachelor of Science in Engineering requires a minimum of 137 semester hours. Because of the overlap in required course work for the two curricula, the combined degree program, including the BS in Sociology, require only 22 additional semester hours.

For Additional Information See the section on the Joint Undergraduate Engineering Program in this Bulletin or contact:

Dr. Nancy Shields
Associate Professor of Sociology and Associate Dean
of the Joint Undergraduate Engineering Program
228 Benton Hall or

Department of Sociology
707 Tower
University of Missouri-St. Louis
8001 Natural Bridge Road
St. Louis, MO 63121-4499.

Sociology

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 School 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 51, Principles of Microeconomics
Sociology 220, Sociological Statistics
Sociology 346, Demographic Techniques
BA 140, Fundamentals of Financial Accounting

Students may then choose to complete **one** of the following three sets of courses:

1) Marketing Management

206, Basic Marketing
275, Marketing Intelligence
303, Industrial marketing

2) Financial Management

204, Financial Management
334, Investments
350, Financial Policies

3) Accounting

145, Managerial Accounting
340, Intermediate Accounting I
345, Cost Accounting

Focused Areas of Study

For those students who wish to focus on one area of sociological study, one of the following areas is suggested.

Urban Problems

040, Social Problems
099, The City
202, Urban Sociology
312, Sociology of Wealth and Poverty
314, Social Change
316, Power, Ideology and Social Movements
342, World Population and Ecology
344, Problems of Urban Community
380, Selected Topics in Social Policy

Minorities and Power

100, Women in Contemporary Society
105, Group Prejudice and Minority Identity
202, Urban Sociology
312, Sociology of Wealth and Poverty
316, Power, Ideology, and Social Movements
360, Sociology of Minority Groups

Deviance, Conformity, and Social Control

75, Crime and Punishment
99, The City
164, Criminological Theory
175, Women, Crime and Society
180, Alcohol, Drugs, and Society
200, Sociology of Deviant Behavior
214, Juvenile Delinquency and Youth Crimes
300, Communities and Crime
320, Forms of Criminal Behavior
325, Gender, Crime, and Justice
326, Criminology
328, Institutions and the Control of Crime and Delinquency
340, Race, Crime, and Justice

Social Psychology: The Individual and Society

102, Sex Roles in Contemporary Society
160, Social Psychology
240, Selected Topics in Micro-Sociology
260, Social Interaction in Small Groups
270, Socialization
361, Social Gerontology
377, Personality and Culture
378, Selected Topics in Social Psychology
380, Selected Topics in Social Policy

Organizational Dynamics: Conflict and Consensus

218, Social Choice in Political-Economic Systems
224, Marriage and the Family
234, Political Sociology
241, Selected Topics in Macro-Sociology
264, Sociology of Religion
268, Sociology of Conflict
278, Sociology of Law
286, Society, Arts, and Popular Culture
336, Organizations and Environments
338, Sociology of Health
354, Sociology of Business and Work Settings
356, Sociology of Education

Applied Analysis and Measurement

205, Introduction to Models in the Social Sciences
240, Selected Topics in Micro-sociology
298, Practicum in Field and Laboratory Research
304, Survey Research Practicum
330, Field Research in Criminology
331, Qualitative Methods in Social Research
342, World Population and Ecology
346, Demographic Techniques
370, Selected Topics in Techniques of Sociological Research
394, Methods in Theory Construction

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 six hours must be at the 300 level (other than Sociology 350, Special Study). No course in which a grade below "C" is received will count toward a minor. Department courses taken on a satisfactory/unsatisfactory basis may not be applied to the minor.

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.

Sociology

Graduate Studies

Curriculum

The department offers a flexible program of studies leading to the Master of Arts degree in sociology with a general orientation toward Urban Problems and Social Change. 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 case work 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

- 1) a baccalaureate degree with a minimum grade point average of 3.00;
- 2) at least 15 hours in the social sciences, of which 12 should be in upper-level courses;
- 3) three letters of recommendation from persons qualified to judge the candidate's potential for success in the program; and
- 4) 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 the:

Director of Graduate Studies
Department of Sociology
University of Missouri-St. Louis
8001 Natural Bridge Road
St. Louis, MO 63121-4499

Students admitted to the program are assigned a graduate adviser from whom they should obtain a copy of the *Graduate Student Handbook* and with whom they should consult periodically on academic and career considerations.

Students meeting departmental M.A. degree requirements may be admitted to the coordinated Ph.D. program with the sociology departments of the University of Missouri at Columbia and Kansas City.

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.

Core Curriculum

- 400, Proseminar in Sociology
- 402, Advanced Quantitative Techniques
- 404, 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: a six-hour internship (Sociology 480, Individual Study) or a six-hour preparatory sequence and an approved paper (Sociology 490, Supervised Research, and Sociology 495, Sociological Reporting). Each candidate is given a final oral review conducted by a faculty committee.

Career Outlook

The undergraduate major in sociology can lead to further training at the graduate level. Job opportunities include working in business, government, social welfare, and probation and parole. Majors learn to analyze complex social and urban issues and to develop a thorough understanding of the workings of major social institutions. Sociology is a particularly good major for prelaw, pre-M.B.A., and pre-M.S.W. students. For more career information, see a sociology adviser.

To function specifically as a sociologist, a graduate degree in the discipline is required, and students with such an interest should plan for this additional training. The M.A. in Sociology prepares students with skills suitable for the career areas of 1) administrative and supervisory positions at the local, state, and federal level; 2) private sector positions in evaluation and policy research, marketing, consulting, and nonprofit organizations; and high school level sociology teaching for persons with a teaching certificate.

Sociology

Course Descriptions

The following courses fulfill the Social Sciences [SS] breadth of study requirements: 10, 40, 75, 99, 100, 102, 105, 160, 164, 175, 180, 200, 202, 205, 210, 214, 220, 224, 230, 231, 234, 240, 241, 245, 260, 264, 268, 270, 278, 280, 286, 290a, 290b, 290c, 298, 300, 304, 308, 310, 312, 314, 316, 320, 325, 326, 328, 330, 331, 336, 338, 340, 342, 344, 346, 350, 352, 354, 356, 360, 361, 370, 375, 377, 378, 380, 394.

10 Introduction to Sociology (3)

An introduction to sociological approaches to human behavior, including types of social organizations, patterns of social interaction, and social influences on individual conduct.

40 Social Problems (3)

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.

75 Crime and Punishment (3)

(Same as Criminology and Criminal Justice 75 and Interdisciplinary 75.) An introduction to sociological and psychological explanations of crime and punishment. An examination of private and governmental responses to the threats of crime and delinquent behavior.

99 The City (3)

(Same as Criminology and Criminal Justice 99, Political Science 99, and Interdisciplinary 99.) 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.

100 Women in Contemporary Society (3)

Prerequisite: Sociology 10 or Interdisciplinary 50 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.

102 Sex Roles in Contemporary Society (3)

Prerequisite: Sociology 10 or Interdisciplinary 50 or consent of instructor. The study of social processes through which sex roles are developed and acquired; the impact of gender and sex roles on personal identity and social conduct; the relationship between sex roles and social inequality; and individual and social consequences of changing sex roles in contemporary society.

105 Group Prejudice and Minority Identity (3)

Prerequisite: Psychology 3 or Sociology 10 or consent of instructor. The psychological and sociological study of determinants of identity formation and transformation among minority groups.

160 Social Psychology (3)

(Same as Psych 160.) Prerequisite: Sociology 10 or Psych 3. Study of the interaction between the individuals and their social environment. Examination of basic principles, concepts, and methods.

164 Criminological Theory (3)

Prerequisites: Sociology 10 and Criminology and Criminal Justice 10 or consent of instructor. An introduction to explanations of criminal behavior and societal reactions to crime which bear upon the administration of justice. Includes historical and contemporary approaches.

175 Women, Crime, and Society (3)

Prerequisite: Sociology 10 or consent of instructor. Topics include social origins of laws relating to women; quantitative and qualitative views of women's criminality; theories of women's criminality; women as crime victims; treatment of women in the correctional process; and women personnel within the criminal justice structure.

180 Alcohol, Drugs, and Society (3)

(Same as Criminology and Criminal Justice 180.) Prerequisite: Sociology 10 or Psych 3. 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.

200 Sociology of Deviant Behavior (3)

Prerequisite: Sociology 10 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.

202 Urban Sociology (3)

Prerequisite: Sociology 10 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.

205 Introduction to Models in the Social Sciences (3)

Prerequisite: Sociology 10 or Anthro 11 or PolSci 11 or consent of instructor. The course will focus on explaining social and cultural behavior. Elementary models of decision making, exchange, and adaptation will be covered. Computer processing of data to test empirical hypotheses will be introduced.

210 Sociological Theory (3)

Prerequisite: Sociology 10 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.

Sociology

214 Juvenile Delinquency and Youth Crimes (3)

Prerequisite: Three hours of 100-level sociology. A theoretical and research-oriented approach to delinquency and youth crime, including types, trends, causation, correction, and prevention.

220 Sociological Statistics (3)

Prerequisites: Sociology 10 and satisfaction of mathematics proficiency requirement. Issues and techniques of statistical analyses relevant to quantitative sociological research, e.g., elementary probability, measurements of central tendency and dispersion, measures of relationships including linear regression and correlation, inferential statistics.

224 Marriage and the Family (3)

(Same as Nursing 224.) Prerequisite: Sociology 10 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.

230 Research Methods (3)

Prerequisites: Sociology 10 and satisfaction of mathematics proficiency requirement and Sociology 220 or consent of instructor. Research planning and interpretation, principles of research design, measurement, and sampling. Techniques for the collection, analysis, and presentation of data.

231 Laboratory in Research Methods (1)

Prerequisite: Must be taken concurrently with Sociology 230. Laboratory course to accompany Sociology 230. The course will include practical experience in the conduct of research. Required for the B.A. in sociology.

234 Political Sociology (3)

Prerequisite: Sociology 10 or PolSci 11 or consent of instructor. The analysis of power as a social phenomenon. The processes of legitimizing power and instituting authoritative structures. Stabilizing of social control and social integration at various levels of social and political organization.

240 Selected Topics in Micro-sociology (1-3)

Prerequisite: Sociology 10 or consent of instructor. Examination of a specific sociological topic that focuses on small groups and interpersonal relations. May be taken more than once for credit provided the topic of the course is different each time.

241 Selected Topics in Macro-sociology (1-3)

Prerequisite: Sociology 10 or consent of instructor. Examination of a specific topic that focuses on large-scale social systems and the structural relationships among social organizations and institutions. May be taken more than once for credit provided the topic of the course is different each time.

245 Sociology of South Africa (3)

Prerequisite: Sociology 10 or consent of instructor. An analysis of South African society as a sociocultural system, with attention to its demographic, ecological, and social structures; its distinctive social institutions and life styles; and the social dynamics of modernization, urbanization, and ethnicity. This course satisfies the Cultural Diversity requirement.

260 Social Interaction in Small Groups (3)

Prerequisite: Sociology 160 or Psych 160 or consent of instructor. Analysis of human interaction with emphases on group problem solving, group structure, and group process.

264 The Sociology of Religion (3)

Prerequisite: Sociology 10 or consent of instructor. Religion as a universal social institution, its development, forms, and influence in the world, including Western and Eastern religions. Sociological analysis of the effects of religion upon the individual and societies. Religion, its roles in social change, and contemporary trends.

268 The Sociology of Conflict (3)

Prerequisite: Sociology 10 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.

270 Socialization (3)

Prerequisite: Sociology 10 or consent of instructor. Analysis of the structural and social psychological aspects of roles and the self as a product of social interaction.

278 Sociology of Law (3)

Prerequisite: Sociology 10 or consent of instructor. A study of law and society with emphasis on the sociological analysis of specific problems of legal doctrines and legal institutions. The law is examined as an instrument of social control through study of the courts, the legal profession, the police, and various social institutions. Consideration is given to law as an instrument of social change.

280 Society and Technology (3)

Prerequisite: Sociology 10 or consent of instructor. Technology in industrial and post-industrial societies. The social shaping of technological systems. The role of technology in social change.

286 Society, Arts, and Popular Culture (3)

(Same as Anthro 286.) Prerequisite: Sociology 10 or Anthro 11. The relationship of artists, writers, and musicians; their traditions and modes of artistic expression to variant social structures and institutions; and social pressures and rewards.

Sociology

290a, 290b, 290c Undergraduate Seminar in Sociological Issues (3)

Prerequisites: Sociology 10 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 of credit, provided the subject matter is different each time the seminar is taken.

298 Practicum in Field and Laboratory Research (1-3)

Prerequisites: Sociology 220 and Sociology 230, or consent of instructor. Intensive field or laboratory research to be taken subsequent to, or concurrent with, a specific substantive course. May be taken twice for credit.

Note: Any 300-level course taken for major elective credit requires prior completion of two of the following: Sociology 210, Sociology 220, or Sociology 230.

300 Communities and Crime (3)

(Same as Criminology and Criminal Justice 300.) Prerequisite: Criminology and Criminal Justice 110, 120, 130, 210, 220, 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.

304 Survey Research Practicum (3)

(Same as Econ 304 and PolSci 304.) Prerequisites: Junior standing, Sociology 220, Sociology 230, and consent of instructor. The 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.

308 Leadership and Management in Nonprofit Organizations (3)

(Same as Social Work 308, PolSci 394, and Public Policy Administration 394.) Prerequisite: Junior standing. This course 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:

- 1) the dynamics, functions and membership structure of NPOs, especially staff-board and other volunteer relations
- 2) governance and management of NPOs
- 3) resource mobilizations and
- 4) program development management and evaluation.

310 Selected Topics in Sociological Theory (1-3)

Prerequisite: Sociology 210. Focused examination of selected issues, the contributions of individual theorists, and methodological implications in the study of sociological theory. May be taken twice for credit.

312 Sociology of Wealth and Poverty (3)

Prerequisites: Sociology 10 and junior standing or consent of instructor. Theory and research on social stratification and inequality in contemporary societies.

314 Social Change (3)

Prerequisites: Sociology 10 and junior standing, or consent of instructor. Theories of social change applied to the analysis of small and large social systems, including the planning of change and projecting of alternative futures.

316 Power, Ideology, and Social Movements (3)

Prerequisite: Sociology 10 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.

320 Forms of Criminal Behavior (3)

(Same as Criminology and Criminal Justice 320.) Prerequisite: Criminology and Criminal Justice 110, 120, 130, 210, 220, 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.

325 Gender, Crime, and Justice (3)

(Same as Criminology and Criminal Justice 325.) Prerequisite: Criminology and Criminal Justice 110, 120, 130, 210, 220, or consent of instructor. Analysis of the role of gender in crime and the justice system. Emphasis on gender differences in crime commission, criminal processing, and employment in criminal justice agencies.

326 Criminology (3)

Prerequisites: Sociology 200 and Sociology 214 or six hours of sociology or anthropology. Crime as a social phenomenon. Theory and research concerning the causes of crime.

328 Institutions and the Control of Crime and Delinquency (3)

(Same as Criminology and Criminal Justice 328.) Prerequisite: Sociology 214 or Sociology 326. Institutional responses to crime and delinquency. Theories and programs of rehabilitation and punishment. Organizational conditions affecting behavior of correctional personnel.

330 Field Research in Criminology (2-4)

Prerequisites: Sociology 214 and Sociology 230, or Sociology 326, or their equivalent. Students will participate in individual or group research projects involving systematic data collection and sociological analysis concerning the causation or societal reaction to crime, delinquency, or related forms of deviance. One option available to students will be an opportunity to study organizations dealing with juvenile or adult offenders.

Sociology

331 Qualitative Methods in Social Research (3)

Prerequisite: Sociology 220 and Sociology 230, 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.

336 Organizations and Environments (3)

Prerequisites: Sociology 10 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.

338 Sociology of Health (3)

(Same as Nursing 338.) Prerequisites: Sociology 10 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.

340 Race, Crime, and Justice (3)

(Same as Criminology and Criminal Justice 340.) Prerequisite: Criminology and Criminal Justice 110, 120, 130, 210, 220, 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.

342 World Population and Ecology (3)

Prerequisites: Sociology 10 and junior standing or consent of instructor. Sociological theories and research relating people to their ecological environments. Topics include fertility and population change in the non-Western world. Emphasis is directed to population policies in e.g., Africa and India and China

344 Problems of Urban Community (3)

Prerequisites: Sociology 10 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.

346 Demographic Techniques (3)

Prerequisites: Sociology 220 and Sociology 230, or consent of instructor. Practicum experience with computation and analysis of major demographic measures of population size, growth, and shape; fertility; mortality; immigration; emigration; and morbidity. Special attention to comparisons of standard Western and non-Western demographic models, with emphasis on computer modeling.

350 Special Study (1-10)

Prerequisite: Consent of instructor. Independent study through readings, reports, and field work.

352 Advanced Principles of Sociology (3)

Prerequisites: Sociology 10 and junior standing or consent of instructor. Analysis of the main concepts and principles of sociology and survey of sociology as a social science.

354 Sociology of Business and Work Settings (3)

Prerequisites: Sociology 10 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.

356 Sociology of Education (3)

Prerequisite: Sociology 10 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.

360 Sociology of Minority Groups (3)

Prerequisites: Sociology 10 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.

361 Social Gerontology (3)

(Same as Gerontology 361.) Prerequisites: Sociology 10 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.

370 Selected Topics in Techniques of Sociological Research (1-3)

Prerequisite: Sociology 220, 230, or consent of instructor. The study of a specific research technique used in sociological analyses. May be taken more than once for credit provided the course topic is different each time.

375 The Social Psychology of Disabilities (3)

Prerequisite: Sociology 160 or Psych 160 or consent of instructor. (Same as Psychology 375). A social psychological and micro-sociological examination of attitudes and behaviors affecting persons with disabilities. Topics include stigma and empowerment, adaptive behaviors, stereotypes and prejudices, and images of disabilities in popular culture and mythology. The course will address the experience of disability and its social consequences for the lives of persons with disabilities.

377 Personality and Culture (3)

Prerequisites: Sociology 10 and junior standing or consent of instructor. Analysis of behavior from the standpoint of interaction between psychological, sociological, and cultural systems.

Sociology

378 Selected Topics in Social Psychology (1-3)

Prerequisite: Psych 160 or Sociology 160, or consent of instructor. Focused examination of selected issues, concepts, and methods in the study of social interaction. May be taken twice for credit.

380 Selected Topics in Social Policy (1-3)

Prerequisite: Sociology 10, 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.

385 Internship in Sociology (1-6)

Prerequisite: Junior standing and consent of instructor. Students participate in supervised placements in positions related to the profession of Sociology.

394 Methods in Theory Construction (3)

Prerequisite: Sociology 210 or consent of instructor. An in-depth comparison of selected techniques of theory building and testing. Verbal and/or mathematical formalization of selected sociological examples of theory will be the central activity.

400 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.

402 Advanced Quantitative Techniques (3)

Prerequisite: Sociology 220 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.

404 Advanced Methodology (3)

Prerequisite: Sociology 230 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.

406 Research Practicum (3)

Prerequisites: Sociology 400 and consent of instructor. Involvement of students in an individual or group project culminating in a report, in order to provide firsthand experience in integration of theoretical concerns, methodological principles, and appropriate research techniques in an empirical study, the subject of which shall be determined in collaboration with the instructor.

410 Comparative Social Structures (3)

Prerequisite: Sociology 400 or consent of instructor. Social institutions in selected societies are examined in terms of their similarities and differences. Typically, non-American and American social structures such as religion, education, politics, family, and economy are compared, along with population dynamics and change, myths, values, and norms. Societies are selected depending on specialty of faculty and interests of students. May be repeated for credit if the topic is different.

415 Foundations of Criminological Theory (3)

(Same as Criminology and Criminal Justice 415.) 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.

420 Theories of Conflict (3)

Prerequisite: Sociology 400 or consent of instructor. The conflict perspective in sociology is contrasted with consensus models of society. Conflict theorizing is traced from the Classical social thought tradition in Western civilization to its modern Marxist and non-Marxist formulations in contemporary sociology. Ethical implications for social conflict intervention are considered.

422 Family and Interpersonal Conflict Resolution (3)

Prerequisite: Sociology 420 or consent of instructor. The sources and functions of interpersonal conflict in family and neighborhood settings are analyzed. Mediation and conciliation strategies are developed in relation to primary and secondary structures, role systems, and social change.

424 Conflict Management in Organizations (3)

Prerequisite: Sociology 420 or consent of instructor. Intrinsic sources of inter- and intraorganizational conflict and related methods of mediation are examined. Conflict management strategies and situational manifestations of conflict are analyzed within the context of antecedent conditions, such as domain dissensus, differential interests and goals, previously unresolved disputes, unbalanced power relations, structural barriers to communications, internal and external competition for resources, and environmental change.

426 Community and Regional Conflict Intervention (3)

Prerequisite: Sociology 420 or consent of instructor. Community and regional conflicts are examined, with emphasis on paradigms for analyzing power, policy, and social change, and on developing intervention skills through simulation exercises. Intervention roles and approaches, such as mediation, conciliation, arbitration, and advocacy are discussed.

430 Policy Mediation Processes (3)

Prerequisite: Sociology 426 or consent of instructor. Sociological theories of conflict are applied to public issues and policy-making, with an emphasis on building analysis and practice skills. Processes of mediated problem solving are studied and applied to conflict between jurisdictions, between citizens and governments, and between public and private sectors.

Sociology

440 Seminar in Urban Sociology (3)

Prerequisites: Nine hours of undergraduate course work in sociology and consent of instructor.

442 Minority Aging (3)

(Same as Gerontology 442.) Prerequisite: Sociology 361 or consent of instructor. The experience of aging for racial and ethnic minority elderly will be examined in the context of their families, communities, and society. Key questions concerning minority elderly frame the course, such as the relative importance of culture versus social structure, and the applicability of gerontological theory to the minority aging experience.

444 Social Policy and Community Planning (3)

Prerequisite: Consent of instructor. Analysis of the formulation of policy as a social process with concentration on political as well as technical-rational elements. Relation of social policy formation to planning at the community level and analysis of the elements and dynamics of community planning. Analysis of and exposure to planning agencies in the St. Louis metropolitan area.

445 Sociological Dimensions of Chronic Illness (3)

(Same as Gerontology 445.) Prerequisite: Sociology 400 or consent of instructor. The consequences of chronic illness for social roles, family and organizational dynamics, and the functioning of society are examined. Chronic illness is presented as both a medical problem and a social phenomenon that is shaped by the changing age structure of society.

446 Selected Topics in Health Care Policy (3)

(Same as Public Policy Administration 446 and PolSci 446.) 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.

447 Health Policy and the Elderly (3)

Prerequisite: Consent of instructor. Examination of how public policy addresses the acute medical problems, as well as the long-term care needs, of the elderly. The influence of health policy on the structure of the long-term care system is analyzed, along with the consequences of age-based versus need-based policies.

449 Issues in Retirement (3)

(Same as Gerontology 449.) 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.

450 Seminar in Social Psychology (3)

Prerequisites: Nine hours of undergraduate course work in sociology and consent of instructor.

460 Seminar in Deviant Behavior (3)

Prerequisites: Nine hours of undergraduate course work in sociology and consent of instructor.

461 Law and Social Control (3)

(Same as Criminology and Criminal Justice 430.) Prerequisites: Graduate standing and consent of instructor. Examination of the relationship between law and other social institutions, the values and interests that are expressed in law and shaped by legal structures and processes, and law as an instrument of public policy, social control, and social change.

462 Sociology of Criminal Law (3)

Prerequisites: Nine hours of undergraduate course work in sociology and consent of instructor. A survey of research on the formulation, enforcement, and administration of criminal law.

464 Seminar in Criminological Theories (3)

(Same as Criminology and Criminal Justice 464.) Prerequisite: Sociology 400 or consent of instructor. Theories of criminality are examined, with an emphasis on explanations of criminal behavior and societal responses. Theories discussed include: structural strain, differential association, subcultural deviance, differential opportunity, labeling, and social control.

470 Seminar in Sociological Issues (1-3)

Prerequisites: Nine hours of undergraduate course work in sociology and consent of instructor. Consideration of an issue or area of the instructor's choice not already covered by one of the other 400-level courses. May be taken up to three times for up to nine hours of credit, provided the subject matter is different each time the seminar is taken.

475 Introduction to Evaluation Research Methods (3)

(Same as Psych 475, Public Policy Administration 475, and Criminology and Criminal Justice 475.) 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.

476 Research Practicum in Evaluation Research Methods (3)

Prerequisites: Sociology 475 and consent of instructor. Instruction in, and supervision of, research design and data collection for evaluation of social-deviance action program research report. Concurrent with on-site participant observation.

480 Individual Study (3)

Prerequisite: 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.

490 Supervised Research (1-10)

Prerequisites: Sociology 322, Sociology 332, Sociology 492, 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.

Sociology

492 Advanced Sociological Theory (3)

Prerequisite: Sociology 210 or consent of instructor. Recent and current developments in sociological theory in light of its tradition and methodological issues. The state of modern theory with regard to specific conceptual, substantive, and methodological concerns.

495 Sociological Reporting (3)

Prerequisites: Sociology 400, Sociology 402, and Sociology 404. 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.

Interdisciplinary Studies

Minors in Interdisciplinary Studies

The College of Arts and Sciences offers a number of interdisciplinary programs leading to either a minor or a certificate in a designated area of study. There are also a number of courses which are designated as interdisciplinary and which may or may not be part of a particular interdisciplinary minor or certificate program.

These interdisciplinary courses and programs bring together the resources of two or more subject areas in order to focus on topics that benefit from being studied from the point of view of more than one discipline. In some cases, faculty from several departments teach as a team, giving students the opportunity to experience faculty dialogue in a cross-disciplinary fashion.

Minors in American Studies

American studies is an internationally recognized discipline and a minor is available at the University of Missouri-St. Louis. The minor is primarily an organization of courses from several departments that focus on America and American culture. Students interested in this minor should contact the coordinator of American studies for advice and information.

Candidates must have a cumulative grade point average of 2.0 or better in the 18 credit hours required for the minor. Three hours (excluding Interdisciplinary 90 and 295) may be taken on a satisfactory/unsatisfactory basis.

Requirements

The following interdisciplinary courses are required.
90, The Foundations of American Culture
295, Issues in American Culture

Candidates must also select four courses from the following lists. No more than two courses can be taken in the same department. One course must be taken from the humanities list and one from the social sciences list.

Humanities courses applicable to the minor.

Art and Art History:

- 65**, Photography and Society (Same as Interdisciplinary 65)
- 116**, North American Indian Art
- 158**, American Art
- 159**, American Architecture
- 191**, Art since 1945
- 215**, Topics in Tribal Art
- 258**, Topics in American Art
- 263**, Photography Since 1945
- 291**, Topics in Contemporary Art

English:

- 70**, African-American Literature
- 71**, Native American Literature (Same as Anthro 71)
- 171**, American Literature I
- 172**, American Literature II
- 373**, Selected Major American Writers I
- 374**, Selected Major American Writers II
- 375**, American Fiction to World War I
- 376**, Modern American Fiction
- 395**, Special Topics in Literature (When Applicable)

Music:

- 6**, Introduction to African American Music
- 7**, Introduction to Jazz

Philosophy:

- 107**, American Philosophy
- 210**, Significant Figures in Philosophy (When Applicable)

Interdisciplinary:

- 65**, Photography and Society (Same as Art 65)

Social Science courses applicable to the minor.

Anthropology

- 71**, Native American Literature (Same as English 71)
- 120**, Native People of North America
- 121**, Native Peoples of Eastern North America
- 122**, Native Peoples of Western North America
- 131**, Archaeology of Missouri
- 132**, Archaeology of North America
- 250**, American Folklore

Communication:

- 243**, Communications in American Politics
- 343**, The Rhetoric of Protest
- 350**, Mass Communication History
- 352**, Mass Media Criticism

Interdisciplinary Studies

Criminology and Criminal Justice:

- 240, Policing
340, Race, Crime, and Justice

History:

- 107, History of Missouri
202, Black History in the United States
212, African-American History: From Civil Rights to Black Power
300, Selected Topics in History (When applicable)
301, United States History: Colonial America to 1763
302, United States History: Revolution and the New Nation, 1763-1815
303, United States History: Nationalism and Sectionalism, 1815 to 1860
304, United States History: 1860-1900
305, United States History: 1900-1940
306, United States History: 1940 to the Present
311, Topics in American Constitutional History
313, American Military History to 1900
314, American Foreign and Military Affairs, 1900-Present
315, History of Women in the United States

Political Science:

- 129, Women and the Law
135, Introduction to Urban Politics
165, American Political Thought
228, The Federal Judicial System: Politics, Process, and Behavior
230, The American Presidency
231, Congressional Politics
232, African Americans and the Political System
235, Political Parties and Elections
238, Women in Politics
246, The Politics of Poverty and Welfare
282, United States Foreign Policy
320, Constitutional Law
321, Civil Liberties
332, Studies in American Politics
333, Mock Constitutional Convention

Social Work:

- 150, Social Welfare as a Social Institution
285, Social Issues and Social Policy Development

Sociology:

- 40, Social Problems
360, Sociology of Minority Groups

In addition, courses with variable topics such as Topics in ... , Studies in ... , and seminars may be taken when the topics are appropriate. See the coordinator of American studies.

Minor in Black Studies

This minor is designed to provide a focus for new and existing courses in the area of black and African studies. A faculty member from the department of art & art history, history, or psychology is designated as coordinator. Students planning to pursue this minor should consult the coordinator for advisement. For appropriate referral, please contact the advising office at the College of Arts and Sciences.

Candidates must have a cumulative grade point average of 2.0 or better in the minor. Courses taken on a satisfactory/ unsatisfactory basis may not be applied to the minor. Courses applied to the minor may not be counted for a major.

Special topics courses, directed studies or readings relevant to black studies may be included in the minor when approved by the coordinator of black studies.

Requirements

Students must take:

Interdisciplinary 40, The Black World and a minimum of **two** courses from the following:

- Anthro 124**, Cultures of Africa
Art 117, African Art
English 70, African-American Literature
History 81, African Civilization to 1800
History 82, African Civilization Since 1800
Music 6, Introduction to African-American Music
History 212, African-American History: From Civil Rights to Black Power

and a minimum of **three** courses from the following:

- History 319**, Topics in African-American History
History 381, West Africa Since 1800
History 382, History of Southern Africa
PoSci 232, African Americans and the Political System
PoSci 258, African Politics
Sociology 245, Sociology of South Africa
Sociology 360, Sociology of Minority Groups
Comm 332, Intercultural Communication
Anthro 234, Cultural Continuity and Change in Sub-Saharan Africa
Anthro 235, Women in Sub-Saharan Africa: A Contemporary Perspective

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. In addition to appealing to any student's curiosity about the early stages of society in the West, the minor provides an especially valuable supplement to those who are majoring in many liberal arts areas including history, literature, philosophy, foreign languages, and art.

The Classical World (Interdisciplinary 10), the only required course in the minor, is an introductory survey focusing on central issues and themes and major works from the entire period.

Students pursuing the minor will acquire a foundation in either Greek or Latin. They may choose to use either sequence to fulfill the foreign language requirement in the College of Arts and Sciences.

Interdisciplinary Studies

Requirements

Candidates for the minor must complete 19 credit hours of course work including:

Interdisciplinary 10, The Classical World and either
Latin 1,
Latin 2, or
Ancient Greek 1,
Ancient Greek 2,

and two courses from the following list.

Ancient Greek 101, Intermediate Ancient Greek Language and Culture
Art 111, Art and Archeology of the Ancient World
Art 112, Greek Art and Archeology
Art 113, Roman Art and Archeology
Art 212, Topics in Ancient Art and Archeology
English 20, Classical Mythology
English 120, Classical Literature in Translation
History 331, The Ancient World: Greece
History 332, Rome: The Republic
History 333, Rome: The Empire
Interdisciplinary 200, Special Topics in Classical Studies
Latin 101, Intermediate Latin Language and Culture
Philosophy 101, Ancient Philosophy
Philosophy 201, Plato
Philosophy 202, Aristotle

Minor in Legal Studies

The minor in Legal Studies is open to all undergraduate students at UM-St. Louis, whatever their major field. It offers a secondary field of concentration in one of the most important areas of social life. Students may use the minor as a complement to their major, as an additional qualification for career opportunities, or as general education.

This interdisciplinary minor coordinates liberal arts courses related to law. A faculty member in Legal Studies will advise students and will work with their major advisers in planning appropriate courses.

Candidates must take:

Interdisciplinary 20, Foundations of Law: An Introduction to Legal Studies (cross listed as PolSci 20).

and five courses from the following list. At least three courses must be taken at the 200 level and above. No more than two courses from a single discipline may be included in the minor.

CCJ 10, Introduction to Criminology and Criminal Justice
CCJ 75, Crime and Punishment
CCJ 130, Criminal Justice Policy
CCJ 226, Law and the Individual
CCJ 227, Urban Law: Poverty and the Justice System
CCJ 345, Rights of the Offender
Comm 355, Media Law and Regulation
Econ 219, Law and Economics
History 311, Topics in American Constitutional History
History 321, Medieval England
Philosophy 287, Philosophy of Law
Philosophy 387, Seminar in Philosophy of Law
PolSci 129, Women and the Law
PolSci 226, Law and the Individual (cross listed as CCJ 226)
PolSci 228, The Federal Judicial System: Politics, Process and Behavior
PolSci 320, Constitutional Law
PolSci 321, Civil Liberties
PolSci 326, Judicial Decision Making
PolSci 329, Studies in Public Law
PolSci 385, International Law
Sociology 175, Women, Crime, and Society
Sociology 278, Sociology of Law

Interdisciplinary Studies

Minor in Public Affairs Journalism

The Minor in Public Affairs Journalism provides students with an overview of media operations, including basic writing and reporting skills, as well as a specialty area of advanced study. Ordinarily the specialty or cognate area focuses on a particular field, such as consumer affairs, economics, or political science—areas in which a journalist would specialize. Cognate areas are proposed by students seeking the minor and approved by a faculty committee.

A minimum grade point average of 2.0 is required in the minor. No more than three hours credit may be taken on a satisfactory/unsatisfactory basis. A total of 18 hours is required for the minor. At least 12 of the 18 required hours must be taken at UM-St. Louis.

Requirements

A. **Nine** hours in communication/English professional training:

English 214, or Comm 214, News Writing
English 218, Reporting or Comm 212, Broadcast Writing and Reporting
English 320, Independent Writing Project, or
Comm 394, 396 or 397, Internship

B. **Nine** hours in Public Affairs at the 200 level or above

1. Students earning a Writing Certificate or majoring in Communication with a mass communication emphasis must take 15 hours (at least nine of these at the 200 level or above) in economics, political science, or sociology.

2. Students majoring in economics, political science, or sociology must take nine hours (in addition to the required English/communication courses) at the 200 level or above in addition to English/communication courses chosen from those listed above and/or in the two cognate areas outside their major (i.e., economics, political science, or sociology).

Minor in Urban Studies

A Minor in Urban Studies includes 18 hours of course work. Candidates must have a cumulative grade point average of 2.0 or better in the minor. Courses taken on a satisfactory/unsatisfactory basis may not be applied to the minor.

Special topics courses relevant to urban studies may be included in the minor when approved in advance by the coordinator of the urban studies minor.

Requirements

Students must take:

Interdisciplinary 99, The City

and **five** courses selected from the following list, at least **three courses at the 200 level or above**. No more than two courses from a single discipline may be included in the minor.

Courses Applicable to the Minor

Anthro 242, The Culture of Cities
Anthro 250, American Folklore
Art 159, American Architecture
Art 295, The Artist and the City
CCJ 227, Urban Law: Poverty and the Justice System
CCJ 230, Crime Prevention
CCJ 300, Communities and Crime
Econ 270, Urban and Regional Economics
Econ 317, Public Finance: State and Local
Geography 210, Urban Geography
Geography 211, Location Theory
History 300, Selected Topics in History (when urban or St. Louis history)
PolSci 135, Introduction to Urban Politics
PolSci 245, Urban Administration
PolSci 346, Urban Planning and Politics
Psych 235, Community Psychology
Psych 256, Environmental Psychology
Sociology 40, Social Problems
Sociology 202, Urban Sociology
Sociology 344, Problems of Urban Community

Interdisciplinary Studies

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.

The following courses fulfill the Social Sciences [SS] breadth of study requirements: 10*, 20, 40, 45, 60, 75, 90*, 91*, 99, 101, 120, 150++, 269*, 287, 295*, 310, 351.

The following courses fulfill the Humanities [H] breadth of study requirement: 65, 70, 150++, 200, 265.

*These courses may fulfill the Humanities [H] or Social Sciences [SS] breadth of study requirements.

++ Depending on topic.

10 The Classical World (3)

A survey of the cultures of ancient Greece and Rome - from the beginning of Hellenic civilization during the second millennium B.C. to the start of the breakup of the Roman Empire in the West. Focuses on various central issues and trends; illustrated primarily by the history, literature, philosophy, and art of the period.

20 Foundations of Law: An Introduction to Legal Studies (3)

(Same as Criminology and Criminal Justice 20 and Political Science 20). 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.

40 The Black World (3)

A survey of the cultural life, historical experience, and contemporary socio-political issues facing the black peoples of Africa, the Caribbean, and United States.

45 Introduction to Labor Studies (3)

(Same as Pol Sci 45). This course covers many topics important to the role of unions in the American political system and American society from a labor perspective. Topics include the role of workers in current and future times, unions' institutional structure, collective bargaining strategies and obstacles for union organizing, recent union campaigns, labor's political role, and the relationship between labor and media.

60 Aging in America (3)

(Same as Gerontology 60.) An introduction to the major issues, research, problems, and current service approaches in the study of the aging process. An overview of information useful for students in the arts and sciences, business, education, and nursing schools. This course is primarily for freshmen and sophomores.

65 Photography and Society (3)

(Same as Art and Art History 65.) A study of photography as a means of information and expression, as an influence on culture, and as a reflection of concepts in politics, science, morality, and art.

70 Introduction to the Study of Religion (3)

The nature of religion and approaches to its study. Examples will be drawn from representative Western and non-Western traditions.

75 Crime and Punishment (3)

(Same as Criminology and Criminal Justice 75 and Sociology 75.) An introduction to sociological and psychological explanations of crime and punishment. An examination of private and governmental responses to the threats of crime and delinquent behavior.

90 The Development of American Cultures (3)

An examination of the conflict and amalgamation of diverse cultures in the origins and development of American society. Consideration is given to the emergence of a national political and economic system national and regional cultures, racial and gender ideology, and sectional conflict. These developments will be examined through their impact on art, literature, religion, music, science, anthropology, architecture, political philosophy, and economic thought.

99 The City (3)

(Same as Criminology and Criminal Justice 99, Political Science 99, and Sociology 99.) 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.

100 Special Topics (3)

Topics may vary from semester to semester, however, they will all focus in the cultural heritage of Great Britain with material taken from art, theater, literature, and selected topics in philosophy.

101 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.

Interdisciplinary Studies

101 AIDS: Myths, Threats, and Realities (3)

Issues regarding the AIDS threat are examined, along with their ramifications. Topics include biological aspects of HIV retroviruses, how they are contracted and spread; methods of testing for them, and issues of public health versus individual rights; similarities and differences with past plagues and epidemics; ethical and theological positions; projected and actual effects of AIDS on society including workplace, education, the law, insurance industry, and economy; problems of labeling and deviance, psychological stigma, interpersonal communication and counselor burnout; political responses and the rational promotion of political strategies and policies to control the spread of AIDS.

102 Women, Gender and Diversity (3)

An introduction to the study of women's roles in a diverse and gendered culture and society. Through a variety of disciplinary perspectives in the humanities, social sciences, and natural sciences, it seeks to understand gender as a concept that affects both women and men. This course explores issues of power, identity, and relationship in women's lives.

120 Special Topics in Gerontology (1-3)

(Same as Gerontology 120.) 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.

150 Special Topics in Women's and Gender Studies (3)

An introduction to a particular topic area in women's studies (topics will be announced prior to registration), drawing on the theories and methods of such disciplines as sociology, psychology, political science, history, philosophy, art history, and others to examine particular aspects of women's experience in social and cultural life. Course may satisfy the distribution requirement for Humanities or Social Sciences depending on the topic.

160 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.

200 Special Topics in Classical Studies (3)

Prerequisite: Interdisciplinary 10 or consent of minor coordinator. Selected topics dealing with various aspects (e.g. literature, history, philosophy, politics, sociology, fine arts) of ancient Greece and Rome. The specific contents of this course will vary from semester to semester. The course may be repeated for credit with the consent of the Coordinator for the Minor in Classical Studies. Readings will be in English.

265 Topics in Photographic Studies (3)

(Same as Art and Art History 265.) Prerequisite: Permission of instructor. Advanced study of specific styles, periods, or issues within photographic history.

269 The Marxist Heritage (3)

(Same as Philosophy 269, and PolSci 269.) Study of Marx and leading Marxists. Designed to evaluate their influence on recent political, economic, and social thought and institutions.

287 The World Food Problem (3)

Prerequisite: Econ 40 or 51, or consent of instructor. An introduction to the world's food problem and an examination of the economic and political problems in distributing basic food-stuffs among the earth's people.

295 Issues in American Culture (3)

Prerequisites: Interdisciplinary 90 or consent of instructor. An examination of specific topics in American culture from the point of view of a number of disciplines. This exit seminar for the American Studies minor may be repeated for credit.

310 Child Abuse and Neglect: An Interdisciplinary Approach (3)

Prerequisite: Social Work 280 or consent of instructor. This course will use an interdisciplinary approach drawing on the fields of Social Work, Nursing, and Education to explore the major concepts necessary for understanding abused and neglected children and their families. Emphasis will be placed on: (1) defining the problem including societal stresses which contribute to the abuse and neglect; (2) exploring existing practice methods; and (3) becoming familiar with treatment programs currently available.

350 Topics in Women's and Gender Studies (3)

Prerequisite: Junior standing and three Women's and Gender Studies courses including ID 102 or consent of instructor. This course will focus on a particular aspect of women's conditions (to be announced prior to registration) and will draw upon recent theoretical and methodological work in the field of women's studies from a variety of disciplines. Course may satisfy the distribution requirement for Humanities or Social Sciences depending on the topic.

351 Theories of Feminism (3)

Prerequisites: Junior standing and three Women's and Gender Studies courses including ID 102 or consent of instructor. An analysis of contemporary theories of feminism, including liberal, radical, socialist, and women-of-color perspectives, and an exploration of the underpinnings of feminist theory in major systems of thought.

352 Special Readings in Women's and Gender Studies (1-5)

Prerequisite: Consent of instructor. Directed independent work in selected Women's and Gender Studies topics through readings, research, reports and/or conferences.

353 Internship in Women's and Gender Studies (3)

Prerequisite: 90 hours., 2.5 GPA, 12 WGS hrs. Internship would place the student in a profit or non-profit setting for approximately ten hours a week in an internship structured and supervised by the Institute; consent of Director required; may include biweekly seminar. Student must present appropriate course background for either option, plus the above pre/co-requisites.

Interdisciplinary Studies

390 Independent Studies in Photographic Studies (1-10)

Prerequisites: Twelve hours completed in photographic studies. Integrated individual projects conducted under photographic studies committee and departmental faculty supervision.

452 Special Readings in Women's Studies/Gender Studies (3)

Prerequisite: Admission to Graduate Certificate program and consent of instructor. Directed independent work on a selected Women's and Gender Studies topic through readings, research, reports, and/or conferences.

Certificate Programs

In order to find the descriptions of the courses listed within a specific certificate program, refer to the individual departments.

Certificate programs are offered in biochemistry, biotechnology, photographic studies, studies in religions, women's studies, writing, and East Asian, Latin American, European, and international studies. These programs, which usually combine course offerings from different departments, make it possible for students to earn the equivalent of a minor in a given area in addition to their major.

Biochemistry Certificate

The University of Missouri-St. Louis offers a certificate program for science majors who are interested in careers in biochemistry. The Biochemistry Certificate is an interdisciplinary specialization which may be earned by completing the core requirements and either a chemistry track or a biology track. All students complete the following core requirements:

Biology

- 11, Introductory Biology I
- 12, Introductory Biology II
- 210, Cell Structure and Function
- 224, Genetics

Chemistry

- 11, Introductory Chemistry I
- 12, Introductory Chemistry II
- 122, Quantitative Analysis
- 261, Structural Organic Chemistry
- 262, Organic Reactions
- 263, Techniques of Organic Chemistry

and one of the following **biology** courses:

- 216, Microbiology
- 235, Development
- 310, Cell Physiology
- 326, Gene Expression in Eukaryotes

Students choosing to complete the certificate through the biology track must take these additional courses:

Biology

- 371, Biochemistry
- 375, Techniques in Biochemistry
- 376, Topics in Biological Chemistry
- 378, Topics in Biological Chemistry Laboratory
- 389, Senior Seminar

Chemistry

- 230, Physical Chemistry for the Life Sciences

Students choosing to complete the certificate through the chemistry track must take these additional

chemistry courses:

- 231, Physical Chemistry I
- 232, Physical Chemistry II
- 233, Laboratory in Physical Chemistry
- 289, Seminar
- 371, Biochemistry
- 372, Advanced Biochemistry
- 373, Biochemical Techniques

Undergraduate Certificate in Biotechnology

The University offers an undergraduate certificate program for biology majors who are interested in careers in biotechnology, including biochemistry, microbiology, molecular biology, cell biology, developmental biology, and molecular evolution.

Requirements

Undergraduate biology majors must enroll in the Biotechnology Certificate Program after the completion of 60 credit hours. A student will receive the Certificate in Biotechnology by completing the requirements for the bachelor's degree and fulfilling all the science (Biology, Chemistry, Math, and Computer Science) course requirements of the B.S. in biology program. The required biology courses for the certificate are:

Biology

- 216, Microbiology
- 218, Microbiology Laboratory
- 226, Genetics Laboratory
- 328, Techniques in Molecular Biology
- 375, Techniques in Biochemistry

One of the following two **biology** courses:

- 326, Gene Expression in Eukaryotes
- 338, Gene Expression in Prokaryotes

One of the following four **biology** courses:

- 317, Immunobiology
- 335, Molecular Cell Biology
- 334, Virology
- 376, Topics in Biological Chemistry, or
- Chemistry**
- 372, Advanced Biochemistry

Photographic Studies Certificate

UM-St. Louis students, graduates, and postbaccalaureate 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.

The Photographic Studies Certificate is the only such program in the country and should be of special interest to those considering a career in the arts, communications, history, science, business, advertising, or in photography itself. The program should also interest professional photographers, teachers, interested lay

Certificate Programs

people, and graduates who are returning to school. This certificate is designed for all who have an intense interest in the myriad aesthetic and practical aspects of the medium.

Requirements

The following courses are required:

Art

60, Photography I

160, Photography II

165, History of Photography, or

History

168, Photohistory

Interdisciplinary

65/Art 65, Photography and Society

Art

360, Photography III, or

Interdisciplinary

390, Independent Studies in Photographic Studies

Students must also take at least one three-hour course selected from the following departmental offerings: (New courses will be reviewed periodically for inclusion.)

Art

5, Introduction to Art

161, Introduction to Digital Photography

261, Color Photography I

262, Non-Silver Photography

263, Photography Since 1945

264, Video Art I

274/Philosophy 274, Philosophy of Art

277, Printmaking: Photolithography

360, Photography III

361, Color Photography II

364, Video Art II

390, Special Studies

391, Advanced Problems in Photography I

392, Advanced Problems in Photography II

Biology 360, Techniques in Electron Microscopy

Comm

50, Introduction to Mass Media

70, Introduction to Cinema

210, Television Production

English

214/Comm 214, News Writing

215, Feature Writing

History

168, Photohistory

Interdisciplinary

40, The Black World

365, Seminar in Photographic Studies

390, Independent Studies in Photographic Studies

Psych

213, Principles of Perception

355, Psychology of Perception

Extension course, Professional Photography Seminar

Studies in Religions Certificate

A Certificate in Studies in Religions requires the completion of 18 hours with a grade of C or better.

Courses must be chosen from two or more departments (interdisciplinary offerings excluded), and the program must include two or more courses which focus on different, major religious traditions. (Courses which fulfill this requirement are marked with an asterisk [*] in the list below.)

In addition, students are encouraged to broaden their understanding of religions and religious experience by enrolling in several courses in which these subjects are studied in philosophical or cultural contexts.

Students must obtain the approval of the coordinator of studies in religions before completing twelve hours toward this certificate.

Requirements

Students must take 18 hours chosen from the following list in accordance with the guidelines above:

Anthropology

244, Religion, Magic, and Science

273, Archaeology & Cultures of the Biblical World

Art

125, Medieval Art

*114, Early Christian Art and Archaeology

English

*13, Topics in Literature

*123, Jewish Literature

*124, Literature of the New Testament

*125, Literature of the Old Testament

*391, Special Topics in Jewish Literature

*395, Special Topics in Literature

History

*252, The World of Islam

*334, History of the Church: Early Christianity

*335, History of the Church: The Middle Ages

Music

103, Music in Religion

Philosophy

85, Philosophy of Religion

102, Medieval Philosophy

120, Asian Philosophy

*185, Topics in Philosophy of Religion

385, Seminar in Philosophical Theology

Political Science

165, American Political Thought

261, Ancient and Medieval Political Thought

Sociology

264, The Sociology of Religion

Certificate Programs

Institute for Women's and Gender Studies Certificate

Faculty

Nanora Sweet, Assistant Professor of English,
Director*
Ph.D., University of Michigan

Corby Finney, Professor of History
Ph.D., Harvard University

Zuleyma Tang Martinez, Professor of Biology
Ph.D., University of California-Berkeley

Lynn Hankinson Nelson, Professor of Philosophy
Ph.D., Temple University

Carol K. Peck, Professor of Optometry
Ph.D., University of California-Los Angeles

Suzanna Rose, Professor of Psychology
Ph.D., University of Pittsburgh

Victoria Sork, Professor of Biology
Ph.D., University of Michigan

Jayne Stake, Professor of Psychology
Ph.D., Arizona State University

Diane Toulaitos, Professor of Music
Ph.D., Ohio State University

Susan Brownell, Associate Professor of Anthropology
Ph.D., University of California, Santa Barbara

John Clifford, Associate Professor of Philosophy
Ph.D., University of California, Los Angeles

Margaret Cohen, Associate Professor of Behavioral
Studies
Ph.D., Washington University

Therese S. Christiani, Associate Professor
Ed.D., Indiana University

Sally Barr Ebest, Associate Professor of English
Ph.D., University of Indiana

Yael Even, Associate Professor of Art
Ph.D., Columbia University

Kathy Gentile, Associate Professor of English*
Ph.D., University of Oregon

Joan Hashimi, Associate Professor of Social Work
Ph.D., University of Illinois-Urbana

Fran Hoffman, Associate Professor of Sociology
Ph.D., University of Oregon

Michele Hoyman, Associate Professor of Political
Science
Ph.D., University of Michigan

Margo-Lea Hurwicz, Associate Professor of
Anthropology
Ph.D., University of California-Los Angeles

Barbara Kachur, Associate Professor of
Communication
Ph.D., Ohio State University

Elizabeth Kizer, Associate Professor of
Communication
Ph.D., Purdue University

Deborah Larson, Associate Professor of English
Ph.D., Columbia University

Janet Lauritsen, Associate Professor of Criminology
and Criminal Justice
Ph.D., University of Illinois-Urbana

Kimberly K. Leonard, Associate Professor of
Criminology and Criminal Justice
Ph.D., The Wharton School, University of Pennsylvania

Joyce Mushaben, Associate Professor of Political
Science
Ph.D., Indiana University

Lois Pierce, Associate Professor of Social Work
Ph.D., Washington University

Gail Ratcliff, Associate Professor of Mathematics
Ph.D., Yale University

Gerda Ray, Assistant Professor of History
Ph.D., University of California-Berkeley

Stephanie Ross, Associate Professor of Philosophy
Ph.D., Harvard University

Margaret Sherraden, Associate Professor of Social
Work
Ph.D., Washington University

Gwendolyn Y. Turner, Associate Professor, School of
Education
Ed.D., University of Arkansas

Anne Winkler, Associate Professor of Economics
Ph.D., University of Illinois-Urbana

Jean Morgan Zarucchi, Associate Professor of Foreign
Languages and Literatures
Ph.D., Harvard University

Leslie Brown, Assistant Professor of History
Ph.D., Duke University

Sheila Clarke-Ekong, Assistant Professor of
Anthropology
Ph.D., University of California-Los Angeles

Priscilla Dowden, Assistant Professor of History
Ph.D., Indiana University

Jody Miller, Assistant Professor,
Ph.D., University of Southern California

Virginia Navarro, Visiting Assistant Professor in
Educational Psychology, Division of School of Education
Ph.D., Washington University

Ann Steffen, Assistant Professor of Psychology
Ph.D., Indiana University

Linda Kick, Lecturer, Department of English
M.A., University of Toronto
M.A., University of Missouri-Columbia

Peggy A. Lambiny, Lecturer
M.B.A., University of Missouri-St. Louis

Margaret Phillips, Lecturer in Foreign Languages
Ph.D., Saint Louis University

Beverly Sporleder, Lecturer in Social Work
MSW, Washington University

*Joint appointees in Women's and Gender Studies

The Institute for Women's and Gender Studies program at the University of Missouri-St. Louis draws upon the rich body of interdisciplinary feminist scholarship to investigate emerging theories and research on women and gender. Courses in the Institute for Women's and Gender Studies program examine women's lives, roles, and contributions among different cultures and times, enabling students to broaden their educational experience and develop new insights into their own lives and aspirations. The program offers both day and evening courses.

The faculty and students in the Institute for Women's and Gender Studies program believe in cooperative education. Institute for Women's and Gender Studies classes promote the exchange of knowledge among women and men of different classes, races, sexual orientations, and social conditions.

Certificate Programs

Institute for Women's and Gender Studies Certificate - Undergraduate

The Institute for Women's and Gender Studies program offers an undergraduate Certificate which is similar to a minor. (For graduate study, see listing for Institute for Women's and Gender Studies Graduate Certificate.) A Certificate is meant to supplement a student's traditional academic major, to encourage a reassessment of women's roles in society, and to facilitate career goals that focus on women's issues. The opportunity to earn a Certificate is available to all undergraduates pursuing a degree at UM-St. Louis and to individuals with a bachelor's degree from any university.

Institute for Women's and Gender Studies courses are open to all students, whether or not they are working toward a Certificate.

Candidates for the Certificate should register with the Institute for Women's and Gender Studies program after they have taken one or two courses. To register, students should complete the Institute for Women's and Gender Studies Certificate form available from any Institute for Women's and Gender Studies faculty or from the Institute for Women's and Gender Studies office. Students interested in the program should contact the director of the program or any member of the Women's Studies faculty.

Requirements

A student must complete 18 hours in Women's Studies courses, including:

Interdisciplinary 102, Women, Gender and Diversity

and either a 300-level course in Women's and Gender Studies or an independent study (3 hours) to be taken in the junior or senior year. Students choosing the independent study option will write a research paper on some aspect of Women's and Gender Studies.

Also required are four additional courses chosen from the following list. These shall be distributed among at least two of the following areas: social science, humanities, and natural science. They should also be distributed among at least three academic departments. No more than three hours may be taken on a satisfactory/unsatisfactory basis.

Anthropology

41, Sex and Gender across Cultures

235, Women in Sub-Saharan Africa

Art 276, Women and the Visual Arts

Biology/Psych 140, Female Sexuality

Comm 337, Male/Female Communication

Criminology and Criminal Justice 325, Gender Crime and Justice

Economics 262, Economics of Women, Men, and Work

English

13, Topics in Literature (when appropriate topic)

280, Topics in Women and Literature (e.g., Black Women Writers; Women and Theater)

380, Studies in Women and Literature

History

007, History of Women in the United States

087, Women in the Ancient World

201, History of Women in Comparative Cultures

218, Decade of Discontent: American Women's Activism

220, History of Feminism in Western Society

300, Selected Topics in History (e.g., Topics in American History: Women and Work)

315, History of Women in the United States

318, African American Women's History

390, Directed Readings (e.g., Women in Revolutionary Societies)

Interdisciplinary

102, Women, Gender and Diversity

150, Special Topics in Women's Studies

350, Topics in Women's Studies

351, Theories of Feminism

352, Special Readings in Women's and Gender Studies

353, Internship in Women's and Gender Studies

Music 108, Women in Music

Nursing 365, Women's Issues in Health Care

Philosophy

153, Philosophy and Feminism

251, Gender and Science

Political Science

129, Women and the Law

238, Women in U.S. Politics

257, Women, Power, and Public Policy

259, Politics, Leadership and the Global Gender Gap

268, Feminist Political Theory

Psychology

140, Female Sexuality

214, Psychology of Women

230, Psychology of Women

Social Work

312, Women's Social Issues

320, Supervised Field Experience in Social Work, when appropriate

Sociology

100, Women in Contemporary Society

175, Women, Crime, and Society

Institute for Women's and Gender Studies Certificate-Graduate

The Graduate Certificate in the Institute for Women's and Gender Studies is designed for those students who wish to receive post-baccalaureate training in Women's Studies. This program provides a multidisciplinary course of study for students wishing to specialize in women's issues. It is appropriate for students in the College of Arts and Sciences or any of the Schools of the University. (See Institute for Women's and Gender Studies Certificate for listing of faculty.)

Admission Requirements

Program applicants must have the following:

- 1) Baccalaureate degree;
- 2) 2.75 grade point average
- 3) Official transcripts of all previous undergraduate/graduate work;
- 4) Two letters of recommendation.

Certificate Programs

Certificate Requirements

A student may earn the Graduate Certificate in Women's Studies by completing a total of 18 hours from the following courses listed (or from additional courses approved by the Director for Women's Studies). At least nine hours of course work must be at the 400 level; no more than six hours of course work may be Independent Study.

Core Courses

English

380, Studies in Women and Literature

416, Feminist Critical Theory

History

300, Topics in History: (e.g., Women and Work in U.S. History)

315, History or Women in the United States

318, African American Women's History

449, Directed Readings: (Women in Revolutionary Societies)

Interdisciplinary

350, Topics in Women's Studies

351, Theories of Feminism

353, Internship in Women's and Gender Studies

452, Special Readings in Women's and Gender Studies

Nursing

365, Women's Issues in Health Care

Psychology

410, Women and Mental Health

418, Human Sexuality

Social Work

312, Women and Social Issues

Writing Certificate

The Writing Certificate provides an opportunity for students to obtain a focused specialty in writing in addition to their major. A student may earn a Certificate in Writing by completing a total of 18 hours in writing courses chosen from the following:

CCJ 200, Writing in Criminology and Criminal Justice

Communication

212, Broadcast Writing and Reporting

217, Script Writing for Business and Industry

English

103, Poetry Writing

104, Short Story Writing

105, Play Writing

108, or **Comm 108**, Advertising Copywriting

112, Topics in Writing

209, Practical Criticism: Writing About Literature

210, Advanced Expository Writing

211, Advanced Expository Writing for International Students

212, Business Writing

213, Technical Writing

214 or **Comm 214**, News Writing

215, Feature Writing

216, Writing in the Sciences

218, Reporting

228 or **Comm 228**, Writing for Public Relations

300, Writing in the Professions

302, Writing Literary Criticism

303, Advanced Poetry Writing

304, Advanced Fiction Writing

305, Writing for Teachers

313, Advanced Business and Technical Writing

319, Editing

Required: English 320, Independent Writing Project. Students serve a supervised writing internship or work with the instructor to complete an extensive writing project.

Courses taken to fulfill requirements for the Writing Certificate may not be taken on a satisfactory/unsatisfactory basis.

Gerontological Studies Certificate

The requirements for an undergraduate Certificate in Gerontological Studies are listed in the Interschool Studies in this Bulletin.

Trauma Studies Certificate

The Trauma Studies Certificate is designed for students who are interested in a focused specialty in trauma studies or victim services in addition to their own major. It is appropriate for students in the College of Arts and Sciences or any of the Schools of the University. It is particularly appropriate for students wishing to pursue careers in psychology, social work, sociology, criminology, law, public health or nursing.

Requirements

A student may earn a Trauma Studies Certificate by completing 18 hours with a GPA of 2.0 or better from at least three departments from the following courses: Students must complete at least 12 hours from the following group:

CCJ

120, Criminal Law

300, Communities and Crime

350, Victimology

Nursing

370, Topics in Nursing (Women at Risk: Women and Safety)

Psychology

232, Psychology of Victims

280, The Psychology of Death and Dying

295, Selected Projects in Field Placement: Helping

Victims of Crime

Interdisciplinary

310, Child Abuse and Neglect: An Interdisciplinary Approach

Sociology

278, Sociology of Law

Only one of the following highly recommended courses may be counted toward the Trauma Studies Certificate:

Psychology

161, Helping Relationships

Social Work

210, Introduction to Interventive Strategies for Social Work Practice

Students may count up to six hours from the following group toward the Trauma Studies Certificate:

CCJ

230, Crime Prevention

240, Policing

340, Race, Crime, and Justice (same as Sociology 340)

Political Science

140, Public Administration

242, Introduction to Public Policy

394, Leadership and Management in Nonprofit

Organizations (same as Social Work 308 & Sociology 308)

Certificate Programs

Psychology

160, Social Psychology (same as Sociology 160)

235, Community Psychology

245, Abnormal Psychology

Social Work

308, Leadership and Management in Nonprofit Organizations (same as PolSci 394 & Sociology 308)

312, Women's Social Issues

Sociology

102, Sex Roles in Contemporary Society

160, Social Psychology (same as Psych 160)

175, Women, Crime, and Society

214, Juvenile Delinquency and Youth Crimes

268, The Sociology of Conflict

308, Leadership and Management in Nonprofit Organizations (same as PolSci 394 & Social Work 308)

340, Race, Crime, and Justice (same as CCJ 340)

Special Topics courses relevant to trauma studies may be included in the certificate when approved in advance by the Coordinator of the Trauma Studies Certificate.

Undergraduate Certificate in Conservation

Biology

The Certificate in Conservation Biology is a multidisciplinary program of study integrating theoretical and applied topics associated with conservation biology. The Certificate is intended for undergraduate students with majors in biology, or in any other field who wish to develop a specialization in conservation. The Certificate is offered by the Department of Biology in cooperation with the Departments of Anthropology, Economics, History, Political Science, Social Work, and Sociology. Building on a core curriculum, students can elect courses from these departments to complete their requirements. Regularly enrolled undergraduates at UM-St. Louis or individuals with baccalaureate degrees who wish to receive a Certificate in Conservation Biology are eligible to participate in the Conservation Certificate Program. In order to participate, students must officially apply to the Certificate Program. Application forms are available from the Biology Department. Guidelines for admission to the Certificate Program are available with the application forms. Individuals with a baccalaureate degree who are interested in this certificate must apply to the University as an unclassified undergraduate. The Certificate requires completion of 21 credit hours as outlined below. Students should consult the *Bulletin* with regard to prerequisites for any of the courses listed here.

Core Courses

Biology

220, General Ecology

240, Conservation Biology

347, Practicum in Conservation

Electives: the remaining 12 credits must be selected from courses listed below. Six credits must be taken from within Biology and six credits outside of Biology, from at least two departments.

Anthropology

120, Indians of North America

121, Native Peoples of Eastern North America

122, Native Peoples of Western North America

131, Archaeology of Missouri

132, Archaeology of North America

Biology

342, Population Biology

350, Functional Ecology

354, Entomology

359, Evolutionary Ecology of Animals

362, Plant Taxonomy

364, Ornithology

385, Wildlife Ecology and Conservation

395, Field Biology

396, Marine Biology

Economics

360, Natural Resource Economics

History

300, Selected Topics when relevant

Political Science

248, Environmental Politics

285, International Organizations and Global Problem Solving

351, Comparative Public Policy and Administration

359, Studies in Comparative Politics, when relevant

Social Work

390, Seminar in Social Work, when relevant

Sociology

342, World Population and Ecology

346, Demographic Techniques

Graduate Certificate in Biotechnology

The Graduate Certificate in Biotechnology is offered for students with a Bachelor's degree who wish to obtain advanced level training in those fields of biology that pertain to biotechnology without necessarily earning a Master's degree. Students who enter this program may have a variety of interests including biochemistry, microbiology, molecular biology, cell biology, developmental biology, or molecular evolution.

Admission

Students who wish to earn a Graduate Certificate in Biotechnology must apply to the Biotechnology Certificate Program for admission to the program. Students must be enrolled in the graduate program at the University of Missouri-St. Louis either as non-degree students or as Master's students. Students who wish to obtain a Master's degree with a Biotechnology Certificate must be accepted into the Master's degree program in Biology as well as into the Biotechnology Certificate Program. Students who apply to the certificate program as non-degree students will earn only the certificate. Students must have at least a 3.0 GPA for undergraduate course work to be accepted into the program. The minimum course prerequisites for admission to the program are undergraduate courses in genetics, cell biology, and biochemistry.

Certificate Programs

Requirements

Students must maintain a minimum GPA of 3.0 to remain in the certificate program. The certificate is awarded after completion of the courses listed below. Students enrolled in the Master's program may simultaneously earn a graduate degree and count the appropriate courses from the list below toward the Biotechnology Certificate.

The Biotechnology Certificate requires **18 credit hours** of course work.

Core Requirements

I.

Biology 428, Advanced Techniques in Molecular Biology

II.

Biology 426, Advanced Gene Expression in Eukaryotes
OR

Biology 438, Advanced Gene Expression in Prokaryotes (if both courses are taken, one may be used as elective credit)

III.

The remaining 10 credit hours must be taken from the following **electives**:

Biology

317, Immunobiology

319, Immunobiology Laboratory

371, Biochemistry

376, Topics in Biological Chemistry

378, Topics in Biological Chemistry Laboratory

406, Topics in Molecular, Cellular and Developmental Chemistry

410, Advanced Cell Physiology

417, Advanced Immunology

429, Advanced Molecular Evolution

430, Advanced Topics in Development

431, Graduate Internship in Biotechnology

434, Advanced Virology

435, Advanced Molecular Cell Biology

444, Advanced Gene Activity During Development

461, Advanced Plant Molecular Biology and Genetic Engineering

489, Graduate Seminar, when relevant

Chemistry

372, Advanced Biochemistry

373, Biochemical Techniques

Graduate Certificate in Tropical Biology and Conservation

The Certificate is awarded after completion of 18 credit hours of core courses and electives with a minimum of 12 credits at the 400 level. Up to three credits may be taken at the 200 level upon permission of the. Electives must include a minimum of 3 credits outside of biology with a maximum of 7 outside of biology. A maximum of 3 credits may be taken elsewhere than UM-St. Louis. Students may simultaneously earn a graduate degree and count credits earned in their degree program toward the Certificate when appropriate.

Required Core Courses:

Biology

445, Public Policy of Conservation and Sustainable Development

447 (1-4), Internship in Conservation Biology (may be replaced with a biology elective for individuals with applied conservation or environmental agency experience upon consent.)

Choice of:

Biology

446, Theory and Application of Conservation Biology

487, Advanced Tropical Ecology and Conservation

Electives:

Biology

342, Population Biology

354, Entomology

362, Plant Taxonomy

364, Ornithology

368, Quantitative Methods in Plant Ecology

385, Wildlife Ecology and Conservation

396, Marine Biology

442, Advanced Population and Community Ecology

450, Advanced Plant Environmental Physiology

458, Advanced Evolutionary Ecology of Plants

459, Advanced Evolutionary Ecology of Animals

465, Methods in Plant Systematics

480, Advanced Behavioral Ecology

481, Advanced Theoretical Systematics and Evolution

487, Advanced Tropical Ecology and Conservation

489, Graduate Seminar, when relevant and endorsed by ICTE

Chemistry

417, Environmental Chemistry

Economics

360, Natural Resource Economics

History

300, Selected Topics in History, when appropriate

371, History of Latin America: To 1808

372, History of Latin America: Since 1808

381, West Africa Since 1800

460, Readings in Latin American History, when relevant and endorsed by ICTE

470, Readings in African History, when relevant and endorsed by ICTE

Political Science

248, Environmental Politics

253, Political Systems of South America

254, Political Systems of Mexico, Central America, and the Caribbean

285, International Organizations and Global Problem Solving

359, Studies in Comparative Politics, when relevant and endorsed by ICTE

388, Studies in Comparative Politics, when relevant and endorsed by ICTE

Political Science

414, Topics in Public Policy Analysis, when appropriate

448, Political Economy of Public Policy

459, Seminar in Latin American Politics, when relevant and endorsed by ICTE

462, Political Theory and Public Policy

481, Seminar in International Relations

342, World Population and Ecology

346, Demographic Techniques

Certificate Programs

Africana Studies Certificate

Students seeking the Africana Studies Certificate have two options: an emphasis in African Studies and an emphasis in African Diaspora Studies.

I. African Studies:

1) At least **one course** in two of the following four areas for a total of nine hours:

Area 1: Anthropology
124, Cultures of Africa

Area 2: Art and Art History
117, African Art

Area 3: History
81, African Civilization to 1800
82, African Civilization Since 1800

Area 4: Political Science
258, African Politics

2) **One course** in two of the following areas, a total of six hours:

Area 1: Anthropology
234, Cultural Continuity and Change in Sub-saharan Africa
235, Women in Sub-saharan Africa

Area 2: Art and Art History
*215, Topics in Tribal Arts

* **Note:** Students should take Art History 215 only when the topic is appropriate to Africa.

Area 3: History
380, West Africa to 1800
381, West Africa Since 1800
382, History of Southern Africa

Area 4: Sociology
245, Sociology of South Africa

3) An independent study course (three hours) in which a research paper will be written on some aspect of African Studies

II. African Diaspora Studies

1) **Interdisciplinary 40:** The Black World (3)

2) **One course** from each of the following areas, a total of six hours.

Area 1: Africa
Anthropology
124, Cultures of Africa
History
81, African Civilization to 1800
82, African Civilization Since 1800

Area 2: Diaspora
Anthropology
05: Human Origins
History

06: African-American History
83: The African Diaspora to 1800
84: The African Diaspora Since 1800
212: African-American History: From Civil Rights to Black Power

3. At least **one course** from each of the following areas, a total of six hours:

Area 1: Africa
Anthropology
234: Cultural Continuity and Change in Sub-saharan Africa
235: Contemporary Women in Sub-saharan Africa
Art History
117: African Art
History
380: West Africa to 1800
381: West Africa Since 1800
382: History of Southern Africa
Political Science
258: African Politics
Sociology
245: Sociology of South Africa

Area 2: Diaspora
Communication
332: Intercultural Communication
English
70: African-American Literature
History
319, Topics in African-American History
385: African Diaspora to 1800
386: African Diaspora Since 1800
Music
6: Introduction to African-American Music
Political Science
232: African Americans and the Political System
***Psychology**
392: Selected Topics in Psychology: African-American Psychology
Sociology
360: Sociology of Minority Groups

* **Note:** Students should take Psychology 392 only when the African American Psychology topic is offered.

Undergraduate Certificate Program in Nonprofit Organization Management and Leadership

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. It is the only such undergraduate program in Missouri.

The certificate requires the completion of 18 semester hours. Nine (9) of these hours must be the following core courses:

1. Leadership and Management in Nonprofit Organizations PolSci 394, same as Sociology or Social Work 308) (3 hours)

Certificate Programs

2. Management Issues in Nonprofit Organizations: Staff Management Issues (Political Science and Social Work 391-A)

3. Management Issues in Nonprofit Organizations: Legal Issues in Governing and Managing Nonprofit Organizations (Political Science and Social Work 391-B)

4. Management Issues in Non-profit Organizations: Financial Issues (Political Science and Social Work 391-C)

5. American Philanthropy and Nonprofit Resource Development (Sociology and Social Work: 396)
The remaining 9 hours of electives can be selected from the following courses:

Business Administration

206 Basic Marketing

210 Management and Organizational Behavior

309 Human Resource Management

311 Advanced Management and Organizational Behavior

Communication

228 Public Relations Writing (Same as English 228)

230 Small Group Communication

231 Communication in the Organization

240 Persuasive Communication

358 Communication in Public Relations

English

212 Business Writing

213 Advanced Business and Technical Writing

Political Science

342 Public Personnel Management

344 Public Budgeting

Psychology

222 Group Processes in Organization

320 Personnel Assessment

Social Work

305 Intervention Strategies for Social Work with Organizations and Communities

Sociology

268 The Sociology of Conflict

280 Society, Arts and Popular Culture

312 Sociology of Wealth and Poverty

314 Social Change

336 Organizations and Environment

The Certificate will be conferred upon completion of a Bachelor's degree from the University of Missouri at St. Louis.

Graduate Certificate Program in Nonprofit Organization Management and Leadership

Through the Public Administration Program, the University offers a graduate certificate program for students who are current professional staff, board members, and other leaders of nonprofit and voluntary organizations, as well as those who wish to consider entering the field. There are only two such graduate programs in Missouri. The certificate can be taken by itself or in conjunction with the pursuit of the Master's in Public Policy Admin. or a graduate degree in another field.

A. The certificate in Nonprofit Management and Leadership requires the completion of 18 semester hours. Nine (9) of these are the following core courses:

1. Leadership and Management in Nonprofit Organizations (3 hours) (Political Science 394, same as Public Policy Administration 394, Sociology or Social Work 308)

2. Management Issues in Nonprofit Organizations: Staff Management Issues (1 hour) (Public Policy Administration and Social Work 391-A)

3. Management Issues in Nonprofit Organizations: Legal Issues in Governing and Managing Nonprofit Organizations (1) (Public Policy Administration and Social Work 391-B)

4. Management Issues in Nonprofit Organizations: Financial Issues (Public Policy Administration and Social Work 391-C)

B. Six hours of electives are to be taken from selected courses in Accounting, Business Admin., 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. (All Graduate electives must be at the 400 course level.)

C. Three hours of internship is also required. Graduate students should demonstrate either a professional field experience equivalent to the internship or be required to participate. Any request for an exemption from the internship requirement must be approved by the 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 (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 certificate program are the same as those required for admission to the Graduate school: an undergraduate degree, and a G.P.A. of 2.75 or better.

Preprofessional Programs

Students at the University of Missouri-St. Louis may develop preprofessional study programs from the University's academic offerings in architecture, engineering, dentistry, journalism, law, medicine, optometry, or pharmacy. With early and careful advising, students may develop a two-year study program in preparation for transfer into a professional program in the junior year, or they may select a major field of study and related area courses which provide strong undergraduate preparation for graduate professional study.

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

The following information on preprofessional study at UM-St. Louis is provided to give students minimal guidelines and assistance in planning a program.

Pre-Architecture

The Department of Art and Art History sponsors the 3+4 Program for the School of Architecture at Washington University. A student who transfers to the School of Architecture, Washington University, at the end of the junior year may graduate from UM-St. Louis after the satisfactory completion of the first year of professional school upon meeting one or more of the following conditions:

- 1) The student has completed all general education requirements and all requirements for a major and lacks only the total hours (electives) necessary for a degree.
- 2) A student who has not completed required courses for a degree must remedy the deficiency with courses taken at the University of Missouri-St. Louis within three years of entering the professional school. At the time of graduation the student must remain in good standing in the professional school or have successfully graduated from professional school.
- 3) A student who has not completed all the courses required for a major may, if the major department at UM-St. Louis agrees, substitute up to six hours of appropriate course work from the professional school.

The requirement that 24 of the last 30 hours of course work for a degree be taken at UM-St. Louis shall be waived where necessary for students graduating under this procedure. For more information on admission requirements, please contact the College of Arts and Sciences at 516-5300.

Pre-Engineering

The Joint Undergraduate Engineering Program of the University of Missouri-St. Louis and Washington University was established in 1993. It allows UM-St. Louis to offer complete Bachelor of Science degree programs in Mechanical, Electrical and Civil Engineering.

Students who enter the joint program take the pre-engineering half of their course work on the campus of UM-St. Louis. The remaining half of their degree programs, consisting of upper-level engineering courses and laboratories, is taken on the campus of Washington University and taught by Washington University engineering faculty members. The two campuses are separated by a driving time of about 15 minutes.

The UM-St. Louis pre-engineering program provides a solid base in mathematics, physics, chemistry, and introductory engineering subjects. Students completing the pre-engineering program will be well prepared for transferring to engineering schools throughout the United States including UM-Columbia, UM-Rolla, Washington University, and SIU-Edwardsville in addition to continuing their education and earning their engineering degrees here at UM-St. Louis.

Admission Requirements

In addition to the general admission requirements, prospective undergraduate engineering and pre-engineering students are advised to take a mathematics placement test, given at UM-St. Louis, the semester before enrolling.

Although there is no required pattern of high-school units for admission to the undergraduate engineering or pre-engineering programs, students are urged to complete at least four units of mathematics, including units in algebra (excluding general mathematics) and trigonometry. Calculus, if available, is also strongly recommended.

Available Course Work Science and Mathematics

Math

- 80, Analytic Geometry and Calculus I
- 175, Analytic Geometry and Calculus II
- 180, Analytic Geometry and Calculus III
- 202, Introduction to Differential Equations

Chemistry

- 11, Introductory Chemistry I
- 12, Introductory Chemistry II

Physics

- 111, Physics: Mechanics and Heat
- 112, Physics: Electricity, Magnetism, and Optics

Introductory Engineering

Engineering

- 144, Statics
- 145, Dynamics

Humanities, Social Sciences, and English

Composition

- 10, Freshman Composition

Humanities Electives (Three Courses)

Social Sciences Electives (Three Courses)

The above indicates pre-engineering course work required for students planning to pursue a Bachelor of Science degree in engineering at UM-St. Louis through the joint program with Washington University.

Preprofessional Programs

Students planning to earn a Bachelor of Science degree in engineering at UM-St. Louis should choose humanities and social sciences electives to meet both the UM-St. Louis General Education Requirements and the humanities and social sciences requirements of the Joint Undergraduate Engineering Program. In particular: A course in American history or government, or in Missouri history or government, must be included. The cultural diversity requirement must be fulfilled. At least 8 credit hours must be in one department or area within humanities or social sciences; of these 8 credit hours, at least 1 credit hour must be in a course at the junior level or higher, taken at a four-year institution. Some courses that fulfill the humanities or social sciences breadth of study requirement do not count as Humanities and Social Sciences Electives; an example would be a statistics course taught in economics or psychology.

For Further Information about undergraduate engineering and pre-engineering programs at UM-St. Louis, please contact our offices at 228 Benton Hall; 516-6800.

Prejournalism

Students wishing to pursue a journalism degree should review the entrance requirements of the schools they would like to attend for information on suggested prejournalism courses of study.

Students seeking a journalism degree from the University of Missouri must complete their junior and senior years at the School of Journalism, University of Missouri-Columbia. For admission, students must present to the UMC School of Journalism 60 acceptable credit hours. 85% of those admitted are chosen on the basis of grade point average. The remainder are chosen on the basis of grades and other factors.

Required Courses

The following studies are required for admission to the School of Journalism:

- 1) English Composition: three credit hours. English 10, Freshman Composition, with a grade of B or better.
- 2) Foreign Language: Twelve to thirteen credit hours are required in one foreign language unless the student has completed four or more high school units in a single foreign language.
- 3) Behavioral, Biological, Physical, and Mathematical Science: eleven hours from three of seven areas plus Math 31: biology, physical science, anthropology, computer science, math, psychology or sociology. The eleven hours must include at least one course with a lab (minimum four hours credit).
- 4) Social Science: 3-6 hours in Economics, 6 hours in American History and three hours in American Government.
- 5) Humanistic Studies: Five hours in two of six areas: appreciation or history of art or music; foreign civilizations; classics; theater appreciation and philosophy. Three hours are also required in American or British Literature.

In addition, word processing skills are required (forty words per minute).

Nontransferable courses at the School of Journalism are basic military science, basic physical education, typing or shorthand, journalism or communication, and no more than three hours maximum of applied music, dance, acting, or studio art.

Students are required to take two journalism courses at UMC prior to admission to the school. The English composition requirement must be satisfied prior to enrollment in any journalism course.

For advisement and information, contact the Advising Office, College of Arts and Sciences, 303 Lucas, telephone 516-5300.

Prelaw

A "prelaw curriculum" is a myth, a mistaken notion based on an inexact analogy to premedical programs, which are quite specific and virtually obligatory for medical school candidates. While no single curricular path is the ideal preparation for law school, a broadly based undergraduate program that includes training in analytical reasoning and writing will serve the student well.

English language and literature courses are virtually indispensable. An awareness of the institutional processes of government obtained through study in political science is needed. Since law is inseparable from historical experience, an acquaintance with American history is important. Students should acquire a knowledge of macro- and microeconomics. Statistics, accounting, and computer science are valuable in understanding special legal subjects and the practice of law.

The University of Missouri has law schools at Columbia and Kansas City. University of Missouri-St. Louis students will find everything needed in planning an undergraduate program, preparing for the LSAT, and applying to law school in the office of the prelaw adviser, 303 Lucas, 516-5300. Students should contact the prelaw adviser early in their undergraduate career.

Premedical Sciences

Students wishing to enter medical, dental, optometry, or veterinary medicine schools should pursue the B.A. or B.S. degrees with majors in the disciplines of their choice, but they should take whatever additional courses may be necessary for admission to the professional school. Pre-veterinary students will have to obtain certain animal sciences courses not offered at the University of Missouri-St. Louis.

Since medical school admission requirements vary, students are urged to consult the catalogs of the schools to which they intend to apply. Updated information may be found in Medical School Admission Requirements (United States and Canada) for the current year, available from the:

Association of American Medical Colleges
2450 N. Street, N.W.
Washington, D 20037

A copy is available for student use at the reference desk of the Thomas Jefferson Library.

Preprofessional Programs

Suggested Courses

Many medical schools recommend the following undergraduate courses:

Biology: Biology 11, Introductory Biology I; Biology 12, Introductory Biology II; Biology 224, Genetics; and additional courses in developmental biology and/or physiology.

Chemistry: Chemistry 11, Introductory Chemistry I; Chemistry 12, Introductory Chemistry II; Chemistry 261, Structural Organic Chemistry; Chemistry 262, Organic Reactions; Chemistry 263, Techniques of Organic Chemistry; and additional courses in organic chemistry and quantitative analysis.

Mathematics: Students should take courses at least through calculus, as appropriate for the major degree.

Physics: Eight credit hours or as appropriate for the degree chosen.

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, premedical students should take Chemistry 11 and 12, Introductory Chemistry I and II, 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 for premed students; the Veterinary Medical Aptitude Test for prevet students; the Dental Aptitude Test for pre-dental students; and the Optometry Admission Test for pre-optometry students.

Each year the number of applicants to health profession schools exceeds the number of available places. Students, therefore, are encouraged to have alternative plans should they not gain entrance. Pharmacy, nursing, and laboratory technology may be considered as alternative fields.

For further information, testing dates, or premedical advising, contact the premedical adviser, 303 Lucas Hall, telephone 516-5300.

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 School of Optometry. It is one of only 19 schools of optometry nationwide and the only one in the state of Missouri.

Because the University offers the Doctor of Optometry degree, it is an ideal institution for pre-optometry education. Undergraduate students have access to the optometry school students, faculty, and staff for career and academic guidance.

For more information contact the Office of Student Affairs at the School of Optometry (516-6263).

Preprofessional 3+4 Program

The Department of Biology sponsors a 3+4 Program for the UM-St. Louis School of Optometry. In this program students may be admitted to the School of Optometry after completing three years (90 semester hours) of study in the Department of Biology. The undergraduate degree is granted when students satisfactorily complete the first year of optometry school. One or more of the following conditions must be met in order to qualify for the undergraduate degree. 1) All general education requirements and all requirements for the major, except electives, must be completed. 2) Any deficiency in required courses must be remedied with courses taken at UM-St. Louis within three years after entering the School of Optometry. 3) Up to six hours from the School of Optometry may be substituted for undergraduate degree requirements, with approval of the Department of Biology.

Prepharmacy

Admission to a school of pharmacy usually requires one to two years of college work in specified areas. Most colleges of pharmacy recommend the 1+4 plan which includes one year of college work followed by four years of professional courses in the college of pharmacy. In some cases the old 2+3 program is used. Since entrance requirements vary, students should consult the catalog of the college to which they intend to apply.

One-Year Prepharmacy Course Sequence

A typical one-year sequence for prepharmacy students which meets the admission requirements of the School of Pharmacy at the University of Missouri-Kansas City and also those of the St. Louis College of Pharmacy is as follows:

Freshman Year:

First Semester (16 Hours)

Chemistry 11, Introductory Chemistry I
English 10, Freshman Composition
Math 30, College Algebra, and Math 35, Trigonometry (At UMKC mathematics through survey calculus, Math 101, is preferred.) Elective*: One three-hour course

* Courses in statistics, psychology, communication, economics, and accounting are most often recommended or required.

Second Semester (16 hours)

Biology 11, Introductory Biology I
(At UMKC a physics course, Physics 11, is preferred to the biology course.)
Chemistry 12, Introductory Chemistry II
Literature: Any three-hour course
Elective*: One three-hour course

* Courses in statistics, psychology, communication, economics, and accounting are most often recommended or required.

Sophomore Year (for 2+3 programs):

First Semester (15 hours)

Biology 12: Introductory Biology II
Chemistry 261, Structural Organic Chemistry
Literature: Any three-hour course
Physics 11, Basic Physics
Elective*: One three-hour course

Preprofessional Programs

* Courses in statistics, psychology, communication, economics, and accounting are most often recommended or required.

Second Semester (14 hours)

Biology: One biology elective

Chemistry 262, Organic Reactions

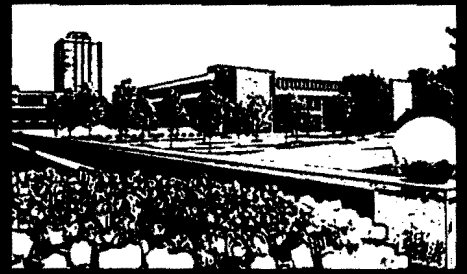
Chemistry 263, Techniques of Organic Chemistry

Physics 12, Basic Physics

Elective*: One three-hour course

* Courses in statistics, psychology, communication, economics, and accounting are most often recommended or required.

For additional information and prepharmacy advising, contact the chemistry department, 324 Benton Hall, telephone 516-5311.



Business Administration**Faculty**

Douglas E. Durand, Dean; Professor*
Ph.D., Washington University

John J. Anderson, C.P.A., C.M.A., Associate Dean;
Professor*
Ph.D., University of Wisconsin-Madison

David R. Ganz, Associate Dean and Director of
Undergraduate Studies in Business; Assistant Professor
M.S. in C., St. Louis University

Albert P. Ameiss, Professor Emeritus
Ph.D., St. Louis University

Howard B. Baltz, Professor Emeritus
Ph.D., Oklahoma State University

James A. Breough, Coordinator in Management;
Professor*
Ph.D., Ohio State University

William P. Dommermuth, Professor Emeritus
Ph.D., Northwestern University

Michael M. Harris, Professor*
Ph.D., University of Illinois-Chicago

Sioma Kagan, Professor Emeritus
Diplom-Ingenieur, Ph.D., Columbia University

Edward C. Lawrence, Coordinator in Finance; Professor*
Ph.D., Pennsylvania State University

Silvia A. Madeo, C.P.A., Coordinator in Accounting;
Professor*
Ph.D., University of North Texas

Joseph S. Martinich, Professor*
Ph.D., Northwestern University

Robert M. Nauss, Professor*
Ph.D., University of California, Los Angeles

David Ronen, Professor*
Ph.D., Ohio State University

L. Douglas Smith, Director, Center for Business and
Industrial Studies; Professor*
Ph.D., University of Minnesota

Robert S. Stich, Professor Emeritus
Ph.D., New York University

Fred J. Thumin, Diplomate, Industrial and
Organizational Psychology; Professor*
Ph.D., Washington University

Nasser Arshadi, Associate Professor*
Ph.D., University of Nebraska

James F. Campbell, Coordinator in Management
Science and Information Systems, Associate Professor*
Ph.D., University of California, Berkeley

Donald H. Driemeier, Deputy to the Chancellor;
Associate Professor*
D.B.A., Washington University

Michael T. Elliott, Associate Professor*
D.B.A.,
Mississippi State University

Thomas H. Eyssell, Associate Professor*
Ph.D., Texas A & M

Timothy A. Farmer, C.P.A., Associate Professor*
Ph.D., Ohio State University

D'Anne G. Hancock, Associate Professor*
Ph.D., University of New Orleans

Marius A. Janson, Associate Professor*
Ph.D., University of Minnesota

Julius H. Johnson, Jr., Associate Professor*
Ph.D., George Washington University

Kailash Joshi, Associate Professor*
Ph.D., Indiana University

Charles R. Kuehl, Director of Continuing Education and
Outreach for the School of Business Administration;

Associate Professor*
Ph.D., University of Iowa

Donald R. Kummer, Director of Graduate Studies in
Business; Associate Professor*
Ph.D., University of Oregon

Mary Lacity, Associate Professor*
Ph.D., University of Houston

Kenneth W. Locke, Adjunct Associate Professor
D.B.A., Indiana University

Haim Mano, Coordinator in Marketing; Associate
Professor*
Ph.D., University of Chicago

R. Frank Page, C.P.A., Associate Professor*
Ph.D., University of Illinois

Susan M. Sanchez, Associate Professor*
Ph.D., Cornell University

Vicki L. Sauter, Associate Professor*
Ph.D., Northwestern University

Robert A. Schuchardt, Associate Professor Emeritus
D.B.A., Washington University

Paul S. Speck, Associate Professor*
Ph.D., Texas Tech University

Ashok Subramanian, Associate Professor*
Ph.D., University of Houston

James P. Tushaus, Associate Professor Emeritus
Ph.D., University of Illinois

George C. Witteried, Associate Professor Emeritus
M.B.A., J.D., Northwestern University

Sriraman Bhoovaraghavan, Assistant Professor*
Ph.D., Temple University

Joseph P. Giljum, C.P.A., Assistant Professor
L.L.M., New York University

Geraldine E. Hynes, Assistant Professor*
Ph.D., St. Louis University

James M. Krueger, C.P.A., Vice Chancellor for
Managerial and Technological Services; Assistant
Professor*
D.B.A., Indiana University

Mary Beth Mohrman, Assistant Professor*
Ph.D., Washington University

David A. Bird, Instructor
M.S., Washington University

Lindell P. Chew, Instructor
M.B.A., University of Missouri-Columbia

Ottilia N. Voegtli, Instructor
M.B.A., University of Missouri-St. Louis

Wayne W. Winter, Assistant Coordinator in Legal
Environment; Instructor
L.L.M., Washington University

Robert J. Banis, Lecturer
Ph.D., North Carolina State University

Joy Dakich, Lecturer
M.A., University of Missouri-St. Louis

Donna Free, C.P.A., Lecturer
M. Acc., University of Missouri-St. Louis

Terry C. Killian, C.P.A., Lecturer
M.B.A., University of Missouri-St. Louis

Peggy A. Lambing, Lecturer
M.B.A., University of Missouri-St. Louis

William R. Link, C.P.A., Lecturer
M.B.A., University of Missouri-Columbia

Laurence A. Madeo, Lecturer
Ph.D., University of Michigan

Donald C. Malm, Lecturer
M.B.A., University of Missouri-St. Louis

Elizabeth W. Vining, Lecturer/Academic Advisor
M.B.A., University of Missouri-St. Louis

*members of Graduate Faculty

Business Administration

The University of Missouri - St. Louis School of Business Administration was established in 1967, and was accredited by the American Assembly of Collegiate Schools of Business (AACSB) six years later—the shortest time on record for any school to receive accreditation of its business program. The AACSB is the only nationally recognized accrediting agency for business and accounting programs. Of some 1,200 business schools nationally, only about 300 are accredited by the AACSB. In 1995, the School of Business Administration received reaccreditation of its business programs, and initial accreditation of its accounting programs, both undergraduate and graduate.

The mission of the School reflects the traditional academic activities of teaching, research, and service. Within the resource and strategic constraints placed on the School by the campus and the system, the School seeks to:

provide students with a high quality business education that prepares them to become productive contributors and leaders in both private and public sector organizations;

conduct research, the results of which extend and expand existing levels of knowledge and understanding relating to the operation, administration, and social responsibilities of enterprises in both the private and public sectors;

serve the university, the citizens of Missouri, and the St. Louis business community through useful outreach programs and through effective interactions with the School's faculty and staff.

At the undergraduate level, the School of Business Administration offers the Bachelor of Science in Business Administration (BSBA) degree with emphases in finance, international business, logistics and operations management, management and organizational behavior, and marketing; or an individual may earn the BSBA degree with no emphasis. Bachelor of Science in Accounting (BSA) and Bachelor of Science in Management Information Systems (BSMIS) degrees are also offered to undergraduate students. At the graduate level, the School offers the Master of Business Administration (MBA), Master of Accounting (MAcc) and Master of Science in Management Information Systems (MS in MIS) degrees. Several specialized certificate programs are also available.

Our diverse faculty, including primarily doctorally qualified, full-time members, have degrees from a variety of prestigious Ph.D. degree-granting institutions, assuring students exposure to various management theories and educational approaches.

In addition to the undergraduate and graduate degree programs mentioned above, the School supports three additional operations: a continuing education unit; an applied research center; and a community service research center. More information about these operations is available from the School.

Undergraduate Studies

Admission to the School of Business Administration

Any day students who designate Business degree programs as their intended degree paths will have "Business" as their assigned Academic Unit (AU), and will be advised by the School of Business Administration Office of Undergraduate Academic Advisement, 487 SSB. Evening Business students are advised by the Evening College until completion of thirty-nine (39) credit hours. While upper division Business courses (those numbered 200 and above) normally require junior standing, Business degree seeking students are encouraged to complete the following courses during their first sixty (60) hours of course work:

BA 103, Computers and Information Systems
BA 140, Fundamentals of Financial Accounting
BA 145, Managerial Accounting
BA 156, Legal Environment of Business
Econ 51, Principles of Microeconomics
Econ 52, Principles of Macroeconomics

Transfer Students

Students transferring to UM-St. Louis are expected to take most of their specific business work during their junior and senior years. Business courses which are offered at the freshman or sophomore level and which are transferred in lieu of those offered at UM-St. Louis at the 200 level or above must be validated. Validation is determined by the appropriate discipline and may include:

- 1) Passing an approved 200-level or above course in that area with a grade of C- or better or
- 2) Passing a proficiency examination.

Business students must complete 48-60 hours in business for the BSBA, BSA, and BSMIS degrees. At least half of the 48-60 business hours must be completed in residence at UM-St. Louis on a regular graded basis. Students must also complete no fewer than sixty (60) hours (business and non-business) at an accredited baccalaureate degree granting institution and must meet the School's 30 hour residency requirement.

Business Administration

Degree Requirements

General Education Requirements

All undergraduate business administration majors must complete the general education requirements of both the University and the School of Business Administration. The School's general education requirements are in keeping with those of the University. Many of the courses needed to complete the School's degree requirements, as outlined below, may be taken to fulfill the University's general education requirements.

General Degree Requirements

All undergraduate business administration (BSBA), accounting (BSA), and Management Information Systems (BSMIS) majors must complete the specific non-business courses which are School of Business Administration degree requirements. To satisfy the BSBA, BSA, and BSMIS general degree requirements, the following pre-business administration requirements must be met:

- 1) Demonstration of basic skills in written communication by a minimum grade of C- in English 10, English Composition. For more information refer to the University General Education Requirements.
- 2) Students wishing to complete a degree at UM-St. Louis must complete a junior-level English requirement with a grade of C- or better.
- 3) Three courses in the humanities, to be chosen from selected offerings in art, English, music, philosophy and communication (applied courses do not qualify). See the Office of Undergraduate Academic Advising or the World Wide Web for a detailed listing of courses which fulfill this requirement.
- 4) Five courses in social science, to include: Econ 51, Principles of Microeconomics, and Econ 52, Principles of Macroeconomics; one course which meets the state requirement (see the University General Education Requirements); and two additional courses.
- 5) Three courses in mathematics and science which must include: a minimum proficiency in Math 100, Basic Calculus, and Math 105, Basic Probability and Statistics, and at least one lecture course in either a biological or physical science. (Note: Math 30, College Algebra, is a prerequisite to Math 100 and Math 105; also students planning to pursue a more in depth knowledge of calculus should take Math 80 in lieu of Math 100).
- 6) Global Awareness Requirement (9 hours):

A. Cultural Diversity Requirement: to expose students to a culture radically different from their own and to enhance their sensitivity to and awareness of cross-cultural differences, the School of Business Administration requires that students complete a three-hour course which focuses upon aspects of a culture and not upon the interactions of that culture with Euro-American cultures. This requirement may be met by one of the courses listed in the College of Arts and Sciences General Information.

B. International Studies: Graduates will work and live in an interdependent world; they will be part of a global economy and will work in an increasingly competitive global marketplace. Success in this changing environment requires knowledge and understanding of the international system, the global economy and other global issues. Towards meeting that objective the School of Business Administration requires that:

1) Students complete two three-hour courses in international studies. These courses are upper division courses, and will ordinarily be completed in the junior or senior year. A list* of the courses that satisfy this requirement is available in the School of Business Administration Undergraduate Academic Advising Office.

2) Students who elect to take 13 hours in one foreign language may use the third course in the sequence in partial fulfillment of this requirement.

* This list will be updated periodically by the Undergraduate Studies Committee with the advice of the Director of the Center for International Studies. Check with your advisor for the most up-to-date list of courses that will satisfy these requirements.

School of Business Administration Core Degree Requirements Candidates for the Bachelor of Science in Business Administration, the Bachelor of Science in Accounting, or the Bachelor of Science in Management Information Systems degrees, must complete the following business administration core courses:

Business Administration

- 103, Computers and Information Systems
- 140, Fundamentals of Financial Accounting
- 145, Managerial Accounting
- 156, Legal Environment of Business
- *204, Financial Management
- *206, Basic Marketing
- *210, Management and Organizational Behavior
- *250, Business Statistics
- *252, Introduction to Operations Management
- *390, Business Assessment Testing
- *391, Strategic Management (seminar)

Students must earn a minimum grade of "C-" in each course included in the thirty (30) hour business core except BA 391, Strategic Management; and BA 390, Business Assessment Testing. A grade of "satisfactory" is required in Business Assessment Testing. Also to be admitted to BA 391, Strategic Management, all other core courses must be completed (except BA 390) with a passing grade.

School of Business Administration Degree Requirements

All students who pursue the Bachelor of Science in Business Administration (BSBA) degree, the Bachelor of Science in Accounting (BSA) degree, or Bachelor of Science in Management Information Systems (BSMIS) degree are required to complete a minimum of 36 hours in business courses at the junior/senior level (UM-St. Louis courses numbered 200 and above). Eighteen (18) of these hours are business core courses (those with an asterisk, above) and eighteen (18) hours are business electives.

Transfer courses used to partially fulfill this requirement must be from four-year accredited schools and must be restricted to junior/senior level students at those schools. Business courses taken in the freshman/sophomore year at any accredited school may be granted transfer credit, but the credit will not be included within the thirty-six hours required at the junior/senior level. If the freshman/sophomore transfer course in business appears to be similar to a junior/senior

Business Administration

level business course at UM-St. Louis, one may request to validate the transfer course. Successful validation will result in a waiver from the need to take the validated course at UM-St. Louis but the transfer credit will not be counted at UM-St. Louis as part of the minimum thirty-six (36) hours required at the junior/senior level.

Approved Electives In addition to the above, students must complete a minimum of 24 hours of approved electives. A list of the approved electives is available in the Undergraduate Advising Office of the School of Business Administration. Courses that are not on this list (free electives) may not be used as approved electives, except with the approval of the School's Undergraduate Studies Committee. Free electives are placed on a student's transcript but do not count toward the 120 required hours for the BSBA, BSA, and BSMIS degrees. At least 12 hours of approved electives must be taken outside the School of Business Administration; the remaining may be earned within the School. A minimum of 60 hours must be taken in non-business administration course work.

Graduation Requirements The BSBA, BSA, and BSMIS degree programs require a minimum of 48 hours in business administration courses, a minimum of 72 hours in business administration and approved electives combined, and a minimum of 120 hours for all course work.

The student must earn a minimum campus grade point average of 2.0 and a minimum grade point average of 2.0 for all business courses attempted at UM-St. Louis. Grade modification cannot be used for calculating the business grade point average.

School of Business Administration Residency Requirement Business Administration students must take their last 30 hours at the University of Missouri-St. Louis. Exceptions to this residency requirement would have to be approved by the School's Undergraduate Studies Committee.

Limitation on Discipline Concentration While a certain level of concentration in one of the various business fields is desirable, students should not concentrate their course selection to the extent of limiting their career flexibility. No more than 24 hours beyond required core courses are allowed in any business discipline--accounting, finance, logistics and operations management, management and organizational behavior, management information systems, and marketing. The combined hours in business and economics courses may not exceed 78 within the 120-hour program.

Requirements For Multiple Degrees Students may earn two or more undergraduate degrees in the School of Business Administration (BSBA, BSA, and/or BSMIS) by completing all of the requirements for each degree. In addition, each degree requires a minimum of 15 credit hours unique to that degree - at least 15 credit hours cannot have been used for another degree within the School of Business. For example, students seeking two undergraduate degrees in Business will have to complete a minimum of 135 semester hours of college course work.

BSBA Emphasis Areas

An emphasis area is not required within the BSBA degree program. Students who choose an emphasis must fulfill the general and specific requirements set forth below. An emphasis area will be noted on the student's permanent record card (transcript)--not the diploma--upon completion of the emphasis area and the BSBA degree requirements. NOTE: An emphasis area designation may be added to the permanent record card for up to two years following graduation. Courses taken after graduation which are to be applied toward an emphasis area must be taken in residence at UM-St. Louis.

General Requirements--BSBA and BSA All BSBA/BSA/BSMIS degree requirements must be satisfied including completion of the ten business core courses required of all persons.

A minimum of: eighteen (18) hours of business electives beyond the business core are required for all BSBA, or BSMIS degree seeking students; twenty-one (21) hours of business electives beyond the business core are required of all BSA degree seeking students. Business courses used in fulfillment of a particular BSBA emphasis area, the BSA and/or the BSMIS major requirements would be counted among these hours.

A student must earn a grade of C- or better in all business and non-business courses applied to the BSBA emphasis area, BSA and/or BSMIS major requirements. Additionally, a campus minimum GPA of 2.00 is required in both the business and emphasis area coursework. (Non-business courses required for an emphasis area are not averaged into either the business or the emphasis area GPA.)

The satisfactory/unsatisfactory option Business students in good standing may take up to 8 hours on a satisfactory/unsatisfactory basis. Exempt from this option are specific degree requirements, including such courses as Econ 51, Econ 52, mathematics courses, English 10, and junior-level English courses; courses fulfilling the mathematics requirement; and the required business administration core courses except BA 390. Up to nine of the allowable 18 hours of work taken on a satisfactory/unsatisfactory basis may, however, be in business electives. Students should consult the School of Business Administration's regulations on this option regarding particular BSBA emphasis area courses and those in the BSA and BSMIS degree program.

All BSBA emphasis areas, the BS in Accounting and the BS in MIS have residency requirements--a minimum number of business hours beyond the business core which must be taken at UM-St. Louis:

Finance, International Business, Logistics and Operations Management, Management and Organizational Behavior, and Marketing--six (6) hours; BS in Accounting and BS in MIS--nine (9) hours.

Hours transferred from four-year accredited institutions require UM-St. Louis area approval to satisfy BSBA emphasis area, BSA and BSMIS requirements. Transferred independent study courses will not fulfill BSBA emphasis area requirements nor requirements for the BSA or BSMIS.

Business Administration

The specific requirements for a BSBA emphasis area, the BSA and the BSMIS for a given individual will be those requirements in effect at the time of completion (with a passing grade) of the first course in the respective program beyond the business core courses.

No more than thirty (30) hours of business electives (sixty [60] business hours in total) may be applied toward the minimum of 120 hours required for the BSBA, BSA and BSMIS degrees.

Various experimental courses and independent study courses may be offered under the BA 295, BA 296 and BA 395 numbers. The first such course taken in a given area will not count against the limit of courses in that area; any additional experimental and independent study courses will count against the limitations outlined above.

The School of Business Administration faculty is currently considering the implementation of a higher GPA requirement for admission and graduation. This will be no more than 2.5 and may be imposed in the future on all students entering the School.

Specific Requirements-- BS in Business Administration

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. There are many business situations in both large and small companies that require knowledge of the latest financial practices and tools. Generally, these applications involve investing (using funds) or financing (raising funds). As a result, the field is comprised of a number of areas including corporate finance, investments, financial institutions and services (banking, insurance, real estate) and personal financial planning.

Undergraduate Program Philosophy

Over the last two decades, the field of finance has become increasingly technical and specialized. Employers recruiting for financial positions not only require candidates to have an undergraduate or graduate degree in finance, but they also want new employees to exhibit skills and experience beyond those typically found in a traditional academic environment. As a result, professional licensing or certification has become one of the most widely recognized means of demonstrating core competency. Consequently, the finance program at UM-St. Louis carefully integrates finance tracks into the curriculum to enable students to complete their academic degrees while at the same time providing the in-depth knowledge necessary for taking professional certification exams. Our program is designed to accelerate professional development and provide students with superior credentials to qualify them for skilled positions in a highly competitive job market. Details for each of the tracks are discussed below.

Finance Core

To earn an emphasis in Finance in the BSBA degree program, all students must successfully complete a minimum of fifteen credit hours of finance electives beyond the business core course of Financial Management, BA 204. In addition, students with a desire to earn one or more professional certifications in specialized areas will need to take additional course work to satisfy the knowledge requirements of a particular track as detailed below.

It should be noted that the course listing under each track is the recommended curriculum to obtain sufficient command of the topics under the specialization. Students deviating from the suggested program of study must assume responsibility for completing any gaps in their backgrounds on their own prior to sitting for any professional exams.

General Finance Emphasis

For students who desire to obtain a general knowledge of finance or custom tailor their own individual program, this option allows students to take any of the finance course electives in any sequence. By affording maximum flexibility, students can explore the many different areas within finance before deciding upon which career path they may want to embark. As stated above, for a BSBA degree with an emphasis in finance, recipients must take a minimum of fifteen credit hours selected from the following courses:

Business Administration

- 207 Practicum in Investments
- 295 Business Administration Problems
- 296 Independent Study
- 327 Practicum in Finance
- 328 Estate Planning and Trust
- 332 Principles of Insurance
- 333 Life Insurance
- 334 Investments
- 335 Financial Risk Management
- 336 Treasury Management
- 337 Principles of Real Estate
- 338 Practices of Personal Financial Planning
- 339 Retirement Planning and Employee Benefits
- 350 Financial Policies
- 351 Computer Applications in Finance
- 355 Financial Services Industry and Instruments
- 356 Commercial Bank Management
- 380 International Finance
- 395 Business Administration Seminar: Topic: Property and Liability Insurance

Track Certification

All students completing one of the specialized tracks at UM-St. Louis will receive a "Certificate of Completion" for that track. This document will be in addition to the degree the student receives and is intended to provide additional evidence of attaining a specific body of knowledge. To receive the certificate, students must fill out an application for certification in their last semester. The application can be obtained from the Office of Undergraduate Academic Advising in the School of Business Administration.

Business Administration

Corporate Finance Track

The Corporate Finance Track trains students to make business financial decisions to maximize the value of the firm. In addition to raising and investing capital, firm managers must deal with a number of stakeholders including stockholders, lenders, customers, and regulators. While the major focus is on the financial problems of large corporations, many of the analytical tools and techniques also apply to small business enterprises. Students completing BA 336, Treasury Management, are eligible under a special agreement with the Treasury Management Association to sit for the Certified Cash Manager (CCM) exam. After completion of two years of related experience, the CCM designation qualifies students to work in the Treasury Departments of many leading companies or service providers like banks. Recommended courses include:

Business Administration

- 334 Investments
- 335 Financial Risk Management
- 336 Treasury Management
- 340A Financial Accounting and Reporting I
- 340B Financial Accounting and Reporting II
- 350 Financial Policies
- 351 Computer Applications in Finance
- 355 Financial Services Industry & Instruments
- 380 International Finance

Financial Institutions and Services Track

Financial institutions design and deliver financial services to businesses, government and individuals. It is also one of the fastest growing segments of the economy. This track is intended for students with a desire to work in a bank, insurance company, real estate firm, or other service provider. Beginning career opportunities include becoming a loan officer for a bank, a securities broker, a mortgage broker, or property manager. Additionally, the Principles of Real Estate course (BA 337) provides students with the educational foundation to sit for the Missouri Real Estate Salespersons' Exam to become licensed to sell residential property under the direction of a broker. Recommended courses include:

Business Administration

- 332 Principles of Insurance
- 334 Investments
- 337 Principles of Real Estate
- 351 Computer Applications in Finance
- 355 Financial Services Industry and Instruments
- 356 Commercial Bank Management

Investment and Portfolio Management Track

There are billions of dollars flowing into retirement plans and mutual funds each year. These monies are invested in security markets around the world to provide the owners with the best returns available for a given level of risk. Professional portfolio managers have the responsibility of meeting investor goals while subject to rapidly changing market conditions. This path of study is intended to prepare students for a challenging career in money management. The program provides students with the critical knowledge to sit for the Chartered Financial Analyst (CFA) exam. This professional designation is highly regarded by the investment industry and requires the passing of a series of three exams. Students must also gain three years of related

work experience before being certified. Recommended courses include:

Business Administration

- 207 Practicum in Investments
 - 334 Investments
 - 335 Financial Risk Management
 - 340A Financial Accounting and Reporting I
 - 340B Financial Accounting and Reporting II
 - 351 Computer Applications in Finance
 - 355 Financial Services Industry and Instruments
 - 380 International Finance
- CFA Review Courses (one for each level) are noncredit and available through Continuing Education.

Financial Planning Track

The Financial Planning Track is designed to prepare students to counsel individuals on personal financial matters that impact the family. This curriculum is a registered program with the Certified Financial Planner Board of Standards Inc., enabling students who successfully complete it to sit for their certification examination. UM-St. Louis does not award the CFP® and CERTIFIED FINANCIAL PLANNER® designations. The right to use the marks CFP and Certified Financial Planner is granted by the CFP Board to those persons who have met its rigorous educational standards, passed the CFP Certification Examination, satisfied a work experience requirement, and agreed to the CFP Board Code of Ethics and Professional Responsibility. Only persons registered with the CFP Board are permitted to sit for the CFP Certification Examination. CFP certificates and licenses are issued only by the CFP Board. The registered curriculum includes:

Business Administration

- 327 Practicum in Finance
- 328 Estate Planning and Trust
- 332 Principles of Insurance
- 334 Investments
- 337 Principles of Real Estate
- 338 Practice of Personal Financial Planning
- 339 Retirement Planning and Employee Benefits
- 347 Income Taxes
- 351 Computer Applications in Finance

Comprehensive CFP Exam Review (noncredit) is available through Continuing Education.

Students who plan to sit for the CFP exam are strongly urged to include BA 338, BA 332, BA 334, BA 347, BA 328 and BA 339 in their coursework.

Insurance Track

This track is intended for the development of professionals for all aspects of the insurance industry. Insurance plays a special role in risk management for individuals and businesses. Areas emphasized include life and property/casualty risk exposures and the administration of pension and employee benefit plans. Students are prepared for careers as analytical staff members of major insurance companies, consultants, insurance agents or brokers, employee benefit specialists, and risk managers. The program is a cooperative partnership with the insurance industry including the American College in Bryn Mawr, Pennsylvania and the local chapter of the American

Business Administration

Society. By special arrangement, students are entitled to apply three approved UM-St. Louis courses toward professional certification without further examination provided the courses are passed with a "C" grade or higher. The professional certifications include the widely recognized Chartered Life Underwriter (CLU) and the Chartered Financial Consultant (ChFC). Transfer of these courses to the American College for certification does not require any additional tuition but only a one-time registration fee. Further courses can be used to satisfy the knowledge content for certification but will necessitate the taking of a standard national exam required of all candidates on the material. Both the CLU and ChFC require the passing of 10 courses not all of which are offered by UM-St. Louis but are available through the American College. In the future, it may also be possible to take actuarial courses offered in the Department of Mathematics as part of this track.

Recommended courses include:

Business Administration

- 328 Estate Planning and Trusts
- 332 Principles of Insurance
- 333 Life Insurance
- 334 Investments
- 338 Practice of Personal Financial Planning
- 339 Retirement Planning and Employee Benefits
- 347 Income Taxes
- 351 Computer Applications in Finance
- 395 Business Administration Seminar; topic: Property and Liability Insurance

International Business

Students wishing to pursue an emphasis in International Business (IB) must satisfy the University's General Education requirements, the cultural diversity requirement, the School of Business Administration core course requirements and the following International Business emphasis area requirements:

Twelve (12) hours—four courses—from the following international business courses with no more than one independent study course in the twelve hours:

Business Administration

- 316 International Marketing
- 317 International Management
- 380 International Finance
- 395 Business Administration Seminar (topics which are determined to be relevant)
- 396 Internship in International Business (no more than three hours may count toward the IB emphasis)
- 295 Business Administration Problems
- 296 Independent Study

Foreign language proficiency equivalent to thirteen hours in one foreign language of international commerce must be demonstrated. Transfer students must pass the UM-St. Louis foreign language proficiency exam. Languages of international commerce are determined by the School of Business Administration.

Students are encouraged to spend at least one semester in an exchange program offered through the University and approved by the School of Business Administration.

Logistics and Operations Management

The mission of Logistics and Operations Management is to get the appropriate goods or services to the right place, at the right time, in the right quality and quantity, while making the greatest contribution to the organization. In a business environment, Logistics and Operations Management encompasses the design, implementation and management of systems for efficient deployment of personnel, physical facilities, raw-materials, in-process inventories, finished goods and related information or services. Logistics and Operations Management covers the whole supply chain, from the point or origin to the point of consumption. Logistics and Operations Management analysts must be proficient in the use of quantitative models and computers, and communicate effectively.

For an emphasis in Logistics and Operations Management a student must complete at least four (4) courses (twelve [12] hours) from the following:

Business Administration

- 306 Decision Support Systems
- 308A, B, C, or D Production and Operations Management
- 329 Business Forecasting
- 330 Quality Assurance in Business
- 331 Multivariate Analysis
- 375 Operations Research
- 385 Operations Research II
- 295/395 Business Administration Problems/Seminars
- 296 Independent Study
- *CS 125 Introduction to Computer Science
- 224 Managerial Applications of Object-Oriented Programming I
- *307 End-User Computing for Business Applications

295, 296 & 395 are restricted to those courses offered and approved by the area faculty.

*No more than one of these programming courses may be counted toward the emphasis area.

Management and Organizational Behavior

The study of management and organizational behavior focuses on the behavior of individuals and groups in an organizational setting. The business environment today demands graduates with skills who can effectively make decisions involving working with and leading people.

The Management and Organizational Behavior emphasis stresses the qualitative approaches to business.

The major areas of focus are: the theory and functions of management; the management of human resources; the development of strategic policies in an organization; organizational design and conflict resolution; entrepreneurship; and international management. In covering these topics, both classic and current perspectives are provided.

To earn the emphasis designation in Management and Organizational Behavior a student must complete **four (4) courses** (twelve [12] hours) to include 311, Advanced Management and Organizational Behavior, **plus three (3) additional courses** selected from:

Business Administration

- 309 Human Resource Management
- 312 Industrial and Labor Relations
- 317 International Management

Business Administration

318 Industrial and Organizational Psychology

This course is cross-listed as Psych 318)

319 Employee Training and Development

392 Entrepreneurship/Small Business Management

295/395 Business Administration Problems/Seminars

296 Independent Study

295, 296 & 395 are restricted to those courses offered and approved by the area faculty.

Marketing

Marketing is an important part of any business or organization and can enhance growth, increase profits, and help achieve the organization's goals. Furthermore, marketing plays an important role in our society by enhancing our quality of life. Equally important, marketing offers varied and interesting career opportunities.

Marketing involves the activities needed to facilitate an exchange. This covers selling products, services or ideas to both consumers and business buyers. Many non-profit institutions are now enthusiastic users of marketing concepts; thus marketing majors find such untraditional areas as hospitals, churches, museums, universities and retirement homes often offer excellent entry level opportunities, in addition to such traditional firms as manufacturing and retailing concerns.

For an emphasis in Marketing, a student must complete at least four (4) courses (twelve [12] hours) selected from:

Business Administration

270 Management of Promotion

275 Marketing Research

301 Consumer Behavior

302 Quantitative Marketing Methods

303 Business-to-Business Marketing

315 Marketing Management

316 International Marketing

295/395 Business Administration Problems/Seminars

296 Independent Study

295, 296 & 395 are restricted to those courses offered and approved by the area faculty.

Specific Requirements-BS in Accounting

Accounting focuses on analyzing and measuring business activity, processing that data into reports, and communicating the information to decision makers. The successful accounting professional needs to acquire the education and skills necessary to fulfill these roles in whatever area of accounting he or she enters. Excellent skills in mathematics are necessary to analyze the quantitative, financial and operating data that decision makers use in marketing, finance, personnel administration, and other business activities. Because accounting is part of an information system, the ability to communicate financial results to managers, clients and others who need the information is a vitally important skill for professional accountants.

Mission: The Accounting Area of the University of Missouri-St. Louis endeavors to prepare high-potential students of diverse backgrounds to succeed in accounting careers, either through a bachelors or masters degree program. We seek to provide these students with the means to deal with the challenges confronting the accounting profession and to contribute

to their solutions. Our faculty strives to further the practice and understanding of accounting through its teaching, research, and service to the profession.

Effective November, 1995, the accounting degree programs at UM-St. Louis are separately accredited by the American Assembly of Collegiate Schools of Business (AACSB). This unique accreditation is not currently shared by any other St. Louis college or university.

For the BSA degree a student must complete at least 7 business courses (21 hours) beyond required business core courses. These 7 courses include:

Business Administration

340A Financial Accounting and Reporting I

340B Financial Accounting and Reporting II

345 Cost Accounting

347 Income Taxes

348 Auditing

In addition to the five courses above, either **215: Information Systems Analysis; or 344: Computer Applications in Accounting**, must be completed;

A minimum of one business course must be selected from the following:

Business Administration

341 Financial Accounting and Reporting III

342 Financial Accounting and Reporting IV

343 Accounting for Governmental and Nonprofit Entities

349 Business Income Taxation

295/395 Business Administration Problems/Seminars

295 and 395 are restricted to those courses offered and approved by the area faculty.

Two (2) additional courses (six [6] hours) must be successfully completed to earn the BSA degree:

One course selected from **Comm 30: Interpersonal Communication I; or**

Comm 40: Introduction to Public Speaking; or

205: Contemporary Business Communication.

One course selected from:

Philosophy

30 Approaches to Ethics; or

154 Business Ethics.

Specific Requirements-BS in Management Information Systems (BSMIS)

Management Information Systems (MIS) are key building blocks of modern organizations. These systems play a crucial role in managing and organizing work. They provide inputs to managers for strategic and operational decision making. They also help organize and streamline processes to improve productivity and reduce cycle times. Thus, MIS plays a crucial role in enhancing the competitive position of an organization. MIS professionals play a vital role in re-engineering organizations for competing in the interconnected global markets of today. An MIS professional needs to acquire functional knowledge in different areas of business and an overall perspective on the objectives and mission of the organization. MIS professionals need to develop strong communication and analytical skills to understand and design business processes and systems. A wide

Business Administration

variety of technical and organizational skills are needed to effectively utilize the current information and communications technologies in developing business solutions. Some of the specific skills include systems analysis and design, database management, programming languages, telecommunication, decision support systems, and management of systems. Besides developing technical skills, organizational skills are also very important for MIS professionals in implementing systems and the changes associated with the new systems.

Mission: The MIS area in the School of Business Administration at the University of Missouri-St. Louis endeavors to prepare high-potential students of diverse backgrounds for successful careers in the MIS profession. Careers in MIS may include programming, systems analysis and design, database administration, end user support, network administration, and management consulting. We seek to provide students with the skills to deal with the challenges confronting the MIS profession and to contribute to their solutions. Our faculty strives to further the practice and understanding of MIS through its teaching, research, and service to the profession. Facilities at the school, such as hi-tech case rooms, advanced computer labs, latest software tools, and infrastructure, help students understand and practice the latest in information systems technology.

For the BS MIS degree a student must complete at least seven (7) courses (twenty-one [21] hours) beyond required business core courses as specified below.

1. A student must complete 5 courses (15 hours)
 - a) Programming/File Structure Requirement (6 hours in either Track 1 or Track 2)

TRACK 1

Business Administration
 109 COBOL Programming and
 209 File Management

TRACK 2

Business Administration
 224 Managerial Applications of Object-Oriented
 Programming I and
 225 Managerial Applications of Object-Oriented
 Programming II

- b) Analysis and Design Requirement (6 hours)

Business Administration
 215 Information Systems Analysis
 310 Information Systems Design
- c) Database Requirement (3 hours)

212 Database Management Systems

2. A student must complete two courses from the following to include at least one Business Administration (BA) course at the 300-level (6 hours):

Business Administration
 109 COBOL Programming (if not used to fulfill requirements in 1 A)
 209 File Management (if not used to fulfill requirements in 1 A)
 224 Managerial Applications of Object-Oriented Programming I (if not used to fulfill requirements in 1A)
 225 Managerial Applications of Object-Oriented

Programming II (if not used to fulfill requirements in 1A)
 304 The Management of Information Systems
 305 Management of Telecommunications
 306 Decision Support Systems
 307 End-User Computing for Business Applications
 344 Computer Applications in Accounting
 CS 240 Computer Hardware & Small Computer Systems I
 CS 241 Computer Hardware & Small Computer Systems II
 CS 332 Artificial Intelligence
 CS 376 Operating Systems
 295/395 Business Administration Problems/Seminars
 296 Independent Study
 295, 296 & 395 are restricted to those courses offered and approved by the area faculty.

Minors in Business Administration

Students earning a degree outside the School of Business may earn any of the minors listed below. Students earning a BSBA degree may, in addition to their emphasis(es) area(s), also earn a minor in accounting or MIS; students earning a BS degree in accounting or MIS may earn a minor in any field outside their major, but not in general business.

Students earning a degree outside the School of Business may, for some courses, satisfy course prerequisite requirements using courses other than those listed in the course descriptions. Students should check with the individual areas regarding alternative prerequisites. These alternative prerequisites apply only to students not earning degrees within the School of Business.

Minor in General Business

This minor is available only to students not seeking the BSBA, BSA or BS MIS degrees.

Students must successfully complete five of the following courses:

Business Administration
 103 Computers and Information Systems
 140 Fundamentals of Financial Accounting
 156 Legal Environment of Business
 204 Financial Management
 206 Basic Marketing
 210 Management and Organizational Behavior
 252 Introduction to Operations Management

See additional requirements for minors, below.

Minor in Accounting

This minor is available to all but BSA students.

Students must successfully complete:

Business Administration
 140 Fundamentals of Financial Accounting
 145 Managerial Accounting

and three of the following courses:

Business Administration
 340A Financial Accounting and Reporting I
 340B Financial Accounting and Reporting II
 341 Financial Accounting and Reporting III
 342 Financial Accounting and Reporting IV

Business Administration

- 343 Accounting for Governmental and Nonprofit Entities
- 344 Computer Applications in Accounting
- 345 Cost Accounting
- 347 Income Taxes
- 348 Auditing
- 349 Business Income Taxation
- 295/395 Business Administration Problems/Seminars

295 & 395 are restricted to those courses offered and approved by the area faculty.

Minor in Finance

This minor is available to all but BSBA students.

Students must successfully complete:

- Business Administration**
- 204 Financial Management

and four of the following courses:

- Business Administration**
- 207 Practicum in Investments
- 327 Practicum in Finance
- 328 Estate planning and Trust
- 332 Principles of Insurance
- 333 Life Insurance
- 334 Investments
- 335 Financial Risk Management
- 336 Treasury Management
- 337 Principles of Real Estate
- 338 Practices of Personal Financial Planning
- 339 Retirement Planning and Employee Benefits
- 350 Financial Policies
- 351 Computer Applications in Finance
- 355 Financial Services Industry and Instruments
- 356 Commercial Bank Management
- 380 International Finance
- 295/395 Business Administration Problems/Seminars
- 296 Independent Study

295, 296, 395 are restricted to those courses offered and approved by the area faculty.

Minor in Logistics and Operations Management

This minor is available to all but BSBA students.

Students must successfully complete:

- Business Administration**
- 252 Introduction to Operations Management

and four of the following courses:

- Business Administration**
- 306 Decision Support Systems
- 308 A,B,C, or D Production and Operations Management
- 329 Business Forecasting
- 330 Quality Assurance in Business
- 375 Operations Research
- 385 Operations Research II
- 295/395 Business Administration Problems/Seminars
- 296 Independent Study
- CS125 Introduction to Computer Science*
- 224 Managerial Applications of Object-Oriented Programming I*
- 307 End-User Computing for Business Applications*

295, 296, 395 are restricted to those courses offered and approved by the area faculty.

*No more than one of these programming courses may be counted toward the minor.

Minor in Management and Organizational Behavior

This minor is available to all but BSBA students.

Students must successfully complete:

- Business Administration**
- 210 Management and Organizational Behavior
- 311 Advanced Management and Organizational Behavior

and three of the following courses:

- Business Administration**
- 309 Human Resource Management
- 312 Industrial and Labor Relations
- 317 International Management
- 318 Industrial and Organizational Psychology (same as Psych 318)
- 319 Employee Training and Development
- 392 Entrepreneurship
- 295/395 Business Administration Problems/Seminars
- 296 Independent Study

295, 296, & 395 are restricted to those courses offered and approved by the area faculty.

Minor in Management Information Systems

This minor is available to all but BSMIS students.

Students must successfully complete:

- Business Administration**
- 103 Computers and Information Systems

and one of the following programming courses:

- Business Administration**
- 109 COBOL Programming
- 224 Managerial Applications of Object-Oriented Programming I

and three of the following elective courses (at least one of the three courses must be 212, 215, or a 300-level course):

- Business Administration**
- 109 COBOL Programming*
- 209 File Management
- 224 Managerial Applications of Object-Oriented Programming I*
- 225 Managerial Applications of Object-Oriented Programming II*
- 212 Database Management Systems
- 215 Information Systems Analysis
- 304 The Management of Information Systems
- 305 Management of Telecommunications
- 306 Decision Support Systems
- 307 End-User Computing for Business Applications
- 310 Information Systems Design
- 295/395 Business Administration Problems/Seminars
- 296 Independent Study

295, 296, & 395 are restricted to those courses offered and approved by the area faculty.

*May be used if it was not used to satisfy the preceding programming course requirement.

Business Administration

Minor in Marketing

This minor is available to all but BSBA students.

Students must successfully complete:

Business Administration
206 Basic Marketing

and four of the following courses:

Business Administration
270 Management of Promotion
275 Marketing Research
301 Consumer Behavior
302 Quantitative Marketing Methods
303 Business-to-Business Marketing
315 Marketing Management
316 International Marketing
295/395 Business Administration Problems/Seminars

295, 296, & 395 are restricted to those courses offered and approved by the area faculty.

Additional Requirements for Minors

In addition to completing the above courses, the following requirements for minors in the School of Business Administration must be met:

- 1) A student earning a minor in General Business may not take more than 30 hours of business courses within the 120 required for a degree.
- 2) A student must earn a grade point average of 2.0 or better, and must earn a C- or better, in all courses included in the minor.
- 3) No course taken on a satisfactory/unsatisfactory basis may be applied toward fulfilling the minor requirements.
- 4) At least 9 credit hours of the courses required for the minor must be taken in residence at UM-St. Louis.
- 5) A minor is not conferred without completion of a UM-St. Louis baccalaureate degree.
- 6) Minors may be completed for up to two years following conferral of the baccalaureate degree. All work towards a minor following conferral of the baccalaureate must be completed in residence at UM-St. Louis.

Minor in Employee Training and Development

The School of Business Administration and the Evening College offer a minor in employee training and development. Information on this minor in can be found in the Evening College section of this book.

Cooperative Education and Internship Programs

Cooperative Education and Internship Programs are available for students seeking career-related employment while enrolled in school. These programs afford business students an opportunity to gain practical experience and earn a substantial income. Co-ops and internships are administered through Career Services, 308 Woods Hall.

International Business Certificate

Students who participate in the Missouri-London Program (take courses and work for one semester in London) or other study abroad programs may apply that experience toward an International Business Certificate. Details may be found in the Interdisciplinary Studies section of the *Bulletin*.

Graduate Studies

The School of Business Administration offers three graduate degrees: the Master of Business Administration (MBA), the Master of Science in Management Information Systems (MS in MIS), and the Master of Accounting (MAcc).

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.

Applicants are required to take the GMAT. This aptitude test is designed to measure certain mental capabilities important in graduate business studies. The examination tests ability to read, understand, and reason logically with both verbal and quantitative material. The test is not a measure of achievement or knowledge of business administration curriculum. Applications for the examination may be made directly to the Graduate Management Admissions Test, Educational Testing Service, CN6103, Princeton, New Jersey 08541. Information concerning the GMAT may also be obtained from the admission advisers or the Office of Graduate Studies in Business. Information concerning the GMAT may also be obtained from the admission advisers or the Office of Graduate Studies in Business.

Master of Business Administration Program (MBA)

The MBA is available in two formats: the evening MBA program and the Internet-Based MBA program. Both are fully accredited by the AACSB-- the International Association for Management Education (formerly the AACSB-- American Assembly of Collegiate Schools of Business), the authorized professional accrediting body in collegiate business education. The MBA programs are designed to prepare students for administrative positions. They also provide an appropriate foundation for students contemplating doctoral work and eventual careers in college teaching or in 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.

The Evening MBA Program

A 54-hour or two-year program, the MBA curriculum provides training in the fundamental areas of administration. The core program is designed to generate a working knowledge of the concepts and interrelationships of four broad categories fundamental to management training:

Business Administration

- * The external environment confronting business organizations and management's response to interactive 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. Course work must be completed within a six-year period. At least 30 hours of coursework must be taken while enrolled as an MBA candidate at UM-St. Louis.

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 management science. 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 301, 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

Econ 301, Quantitative Methods and Modeling in Economics, Business, and the Social Sciences

BA 405, Managerial Communication

BA 408, Economics for Managers

BA 412, Law, Ethics, and Business

MS/IS 481, Statistical Analysis for Management Decisions

BA 490, Strategy Formulation and Implementation

Core Requirements

Accounting 440, Financial and Managerial Accounting

Finance 450, Financial Management

Management 460, Organizational Behavior and Administrative Processes

Marketing 470, Contemporary Marketing Concepts

MS/IS 480, Management Information Systems

MS/IS 483, Production and Operations Management

Business Breadth Requirements

A student must take a second-level course in three of the following areas:

Accounting:

Accounting 442, Accounting for Decision Makers

Finance: Any approved 400-level course beyond Finance 450

Management: Any approved 400-level course beyond Management 460

Marketing: Any approved 400-level course beyond Marketing 470

Information Systems: Any approved 400-level course beyond MSIS 480

Management Science: Any approved 400-level course beyond MSIS 483

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 300 level. Nine elective hours may be taken outside the School of Business Administration if the student has approval in advance from a graduate adviser for the specific courses desired.

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.

Internet-Based MBA Program

An Internet-based version of the MBA program exists as an alternative to the traditional part-time evening program. The Internet based program is designed in a 48 credit hour lock-step format and is intended for student who are unable to attend classes on a regular basis. As such, students will only meet on campus several weekends throughout the course, with the remainder of the interaction between instructor and students taking place over the Internet. 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:

Accounting 442, Accounting for Decision Makers

Finance 459, Seminar in Finance

Management 469, Seminar in Management

Marketing 474, Seminar in Marketing

MS/IS 424B, Seminar in Management Information Systems

MS/IS 494B, Seminar in Logistics and Operations Management

Business Administration

Master of Science in Management Information Systems (MS in MIS)

The MS in MIS program is designed to provide students with a foundation in functional business areas and in managerial and analytical skill areas required in modern organizations. A specialized program in computer-based management information systems is then built on this foundation. The objective of the program is to offer students sufficient technical and managerial knowledge and skills to operate successfully in the rapidly changing careers associated with the design, development, and management of computer-based information and telecommunications systems. The program is designed for students who have bachelor's degrees from accredited institutions, but it is not restricted to any single undergraduate major.

MS in MIS Program Degree Requirements

The curriculum involves a 60-hour or two-year program including a 30-hour core curriculum that is identical to that of the MBA program. Students with the appropriate academic background may waive some or all of this core curriculum. The second 30 hours involves a specialized curriculum oriented around computer-based management information and telecommunications systems--their design, development, and management.

Students also are required to have successfully completed the equivalent of Econ 301, Quantitative Methods and Modeling in Economics, Business and the Social Science, by the end of their first year. While graduate credit is not given for this course, it will be included in grade point calculation.

Required Basic Courses

The following courses, or their equivalents, are required of all degree candidates:

- 405, Managerial Communication
- 408, Economics for Managers
- 412, Law, Ethics and Business
- Accounting 440, Financial and Managerial Accounting
- Finance 450, Financial Management
- Management 460, Organizational Behavior and Administrative Processes
- Marketing 470, Contemporary Marketing Concepts
- MS/IS 480, Management Information Systems
- MS/IS 481, Statistical Analysis for Management Decisions
- MS/IS 483, Production and Operations Management

Required Specialization Courses

The following courses are required:

- MS/IS 484, Business Programming and File Systems
- MS/IS 485, MIS: Theory and Practice
- MS/IS 488, Information Systems Analysis
- MS/IS 489, Database Management Systems
- MS/IS 495, Information Systems Design
- 490, Strategy Formulation and Implementation

At least **two** of the following courses are also required:

- MS/IS 491, Computer Systems: Architecture and Programming
- MS/IS 492, Information Systems Management
- MS/IS 493, Simulation for Managerial Decision Making
- MS/IS 496, Telecommunications: Design and Management (or BA 305)

- MS/IS 497, Decision Support Systems (or BA 306)
- MS/IS 498, Fourth Generation Languages and End-User Computing (or BA 307)
- MS/IS 424, Seminar in Current MIS Topics
- MS/IS 425, Advanced MIS Applications

Electives

Each student must take six hours in a "related discipline" from an approved list available in the Graduate Studies in Business Office. Both courses must be taken in the same related discipline area. The six hours may also be met by the completion of a thesis.

Master of Accounting Program (MAcc)

The MAcc program is intended for students preparing to enter the accounting profession or furthering existing accounting careers. Designed to accommodate both students with undergraduate accounting majors and students with other undergraduate backgrounds, the program permits students to take a generalized course of study or specialize in income taxation. 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 400 level. At least 9 credit hours of the student's 30 credit hour program must be in 400-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 400 level.

Mathematics Background Requirement

Students are required to have completed by the end of their first semester in the program the equivalent of Economics 301, Quantitative Methods and Modeling in Economics, Business, and the Social Sciences, with a grade of C or better. Graduate credit is not given for this course but it may be waived with appropriate undergraduate coursework.

General Business Core

Students must have credit for the equivalent of one three-credit-hour course in each of the following subject areas: macroeconomics, microeconomics, financial accounting, managerial accounting, marketing, financial management, organizational behavior, and business strategy. These requirements may be met with graduate-level course work or may be waived with appropriate courses taken as an undergraduate.

Business Administration

Professional Accounting Core

Students must have credit for the equivalent of each of the following three-credit-hour courses. Some of these courses may be taken concurrently with MAcc degree requirements (listed below) or may be waived with appropriate courses taken as an undergraduate.

- 340A, Financial Accounting and Reporting I
- 340B, Financial Accounting and Reporting II
- 344, Computer Applications in Accounting
- 345, Cost Accounting or Accounting 441, Concepts in Management Accounting
- 347, Income Taxes
- 348, Auditing

MAcc Degree Requirements (minimum: 30 credit hours)

Accounting Courses (minimum: 15 credit hours, 12 credits at 400-level)

- 341, Financial Accounting & Reporting III*
- 342, Financial Accounting & Reporting IV*

Research course-At least one of the following courses must be completed:

- Accounting 421, Professional Accounting Research
- Accounting 431, Tax Research

Seminar- At least one of the following courses must be completed:

- Accounting 445, Seminar in Financial Accounting Theory
- Accounting 439, Seminar in Taxation

Accounting Electives -to meet 15 credit-hour and 400-level requirements

Non-Accounting Courses (minimum: 9 credit hours at 400-level)

- 405, Managerial Communication*
- 412, Law, Ethics, and Business*
- MS/IS 480, Management Information Systems*
- MS/IS 481, Statistical Analysis for Management Decisions*
- MS/IS 483, Production and Operations Management*

Electives may be necessary to meet 9 credit-hour 400-level non-accounting requirement or minimum 30 credit-hour requirement

(*=May be waived with appropriate undergraduate courses)

Taxation Emphasis

Students desiring an emphasis in taxation must complete

- Accounting 431, Tax Research,
- Accounting 439, Seminar in Taxation, and at least two courses from the following list of electives:
- Accounting 432, Taxation of Estates, Gifts, and Trusts
- Accounting 433, Taxation of Corporations and Shareholders
- Accounting 434, Taxation of Partnerships and Partners
- Accounting 435, Tax Practice and Procedure
- Accounting 436, Advanced Topics in Taxation

Graduate Certificate Programs in Business Studies

The School of Business Administration offers a number of 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 a defined course of study in a specialized business topic. Without requiring completion of a 30 -- 72-hour graduate business degree program, certificate programs provide students with the opportunity to obtain the advanced knowledge available through a graduate course of study.

In order to successfully complete a certificate program, students must have earned a 3.0 cumulative GPA in certificate classes. Unless otherwise specified, the certificate 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

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 course work designed to cover the major disciplines within the field of business. Upon completion the student will have a core knowledge of common business practices and corporate 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 Area Coordinator and the Director of Graduate Studies in Business. In all cases, 18 hours are needed to complete the Graduate Certificate.

Program Requirements: (5 courses)

- ACCT 440 Financial and Managerial Accounting
- MGMT 460 Organizational Behavior and Administrative Processes
- MKT 470 Contemporary Marketing Concepts
- MS/IS 480 Management Information Systems

One of the following:

- FIN 450 Financial Management
- MS/IS 483 Production and Operations Management

Elective Course (1 course):

- BA 405 Managerial Communication
- BA 412 Law, Ethics and Business
- *FIN 450 Financial Management
- *MS/IS 483 Production and Operations Management

*Cannot be used as an elective if used as a program requirement.

Business Administration

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 the formal and informal sides of human resources management.

Requirements

Students must complete the following six courses or appropriate substitutes if course waivers are appropriate:

Management 460, Organizational Behavior and Administrative Processes

Management 461, Managing Human Resources

Management 464, Compensation and Benefits

Management 465, Union-Management Relations and Collective Bargaining

Management 466, Personnel Administration: Theory and Practice

MS/IS 481, Statistical Analysis for Management Decisions

Management 460, Management 461, and MS/IS 481 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 Area Coordinator of Management and the Director of Graduate Studies in Business) will be provided. Substitute courses may include Management 462, Advanced Organizational Behavior and Administrative Processes or a course from outside the School of Business Administration. In all cases, 18 hours are needed to complete the Graduate Certificate in Human Resources Management.

Graduate Certificate in Information Resource Management

The management of information as a resource will be the key to success in the next century. To manage this resource, efficient and effective methods for collection, maintenance and use of data must be established. This certificate exposes students to the managerial and technological concerns in the planning of effective transaction processing and/or decision support systems. Students must complete 18 hours as specified below. In addition, if they have not had the equivalent of MSIS 480, they must complete that course.

Programming Requirement: Students must complete one of the courses listed below:

MSIS 423 Managerial Applications of Object-Oriented Technologies

MSIS 484 Business Programming and File Systems

MSIS 498 Fourth Generation Languages and End User Computing

Core Courses: Students must complete each of the three courses listed below:

MSIS 485 Management Information Systems: Theory and Practice

MSIS 488 Information Systems Analysis

MSIS 489 Database Management Systems

Elective Courses: Students must complete two courses from the following list. Students may take at most one additional programming course (marked with *), and may not use as an elective any course already used to meet the Programming Requirement.

MSIS 492 Information Systems Management

MSIS 496 Telecommunications: Design and Management

MSIS 497 Decision Support Systems

MSIS 423 Managerial Applications of Object-Oriented Programming*

MSIS 484 Business Programming and File Systems*

MSIS 498 Fourth Generation Languages and End User Computing*

Graduate Certificate in Management Information Systems

The Graduate Certificate in Management Information Systems is an 18 hour program designed to provide a focus on information systems development. Topics related to systems development such as programming and database design are included in the course of study.

Requirements: Students must complete six courses as specified below:

MSIS 480 Management Information Systems

MSIS 484 Business Programming and File Systems

MSIS 488 Information Systems Analysis

MSIS 489 Database Management Systems

MSIS 495 Information Systems Design

Elective Courses (Students are required to take at least one course out of the following courses):

MSIS 424 Seminar in Current MIS Topics

MSIS 492 Information Systems Management

MSIS 496 Telecommunications: Design and Management

MSIS 497 Decision Support Systems

MSIS 498 Fourth Generation Languages and End User Computing

MSIS 425 Advanced MIS Applications

BA 430 Individual Research

Students would have the opportunity to take additional electives should they desire to do so.

All course prerequisites and all course waivers are applicable. Substitute courses must be approved by the Area Coordinator of Management Science and Information Systems and the Director of Graduate Studies in Business. In all cases, 18 hours are needed to complete the Graduate Certificate in Management Information Systems. Students should complete the certificate within 3 years from the time they first enroll in the program.

Business Administration

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 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:

Marketing 470, Contemporary Marketing Concepts

Marketing 475, Consumer Motivation and Behavior

Marketing 478, Marketing and Business Research

Marketing Management:

Marketing 471, Marketing Planning and Strategy

Marketing 476, Marketing Communications

Marketing 477, Product Planning and Pricing

All course prerequisites and all course waivers are applicable. Substitute courses must be approved by the Area Coordinator of Marketing and the Director of Graduate Studies in Business. In all cases, 18 hours (including at least 12 hours in marketing) are needed to complete the Graduate Certificate in Marketing Management.

Graduate Certificate in Taxation

The Graduate Certificate in Taxation is an 18-hour course of study designed to focus on the theory and practice of taxation as a subfield of accounting. The course of study emphasizes both the legal, as well as the academic analysis of taxation.

Requirements

Besides the admission requirements needed by all graduate business students, students seeking a Graduate Certificate in Taxation must have the equivalent of an undergraduate degree in accounting from UM-St. Louis. An up-to-date tax course should be part of that degree although up-to-date tax knowledge may be evidenced through an "old" tax course combined with recent tax experience.

To earn the certificate, students must complete six courses as prescribed following:

Required Courses

Accounting 431, Tax Research

Accounting 433, Taxation of Corporations and Shareholders

Accounting 435, Tax Practice and Procedure

Three Additional Courses From:

Accounting 432, Taxes of Estates, Gifts, and Trusts

Accounting 434, Taxation of Partnerships and Partners

Accounting 436, Advanced Topics in Taxation

405, Managerial Communication or

412, Law, Ethics and Business

Students must complete the Graduate Certificate in Taxation within three years from the time they first enroll in the program.

Special Interdisciplinary Degree

The School of Business Administration also cooperates with the Departments of Economics and Political Science in the College of Arts and Sciences in offering a master's degree in public policy administration (MPPA). For information on the MPPA degree program, see the Inter-School Studies section of this *Bulletin*.

General Statement of Policy Applicable to All Students Taking Business Courses

Academic Misconduct

The School of Business Administration views academic dishonesty as a serious offense. Unless instructed by their instructor to the contrary, students should assume that all class assignments are to be done independently. For independent assignments (e.g., a case analysis, take-home or in-class exams), giving or receiving aid, unless authorized by the instructor, is considered academic dishonesty. If the student is uncertain concerning the nature of an assignment, it is his/her responsibility to seek the instructor's guidance. For more information on academic misconduct, refer to the appendix of this *Bulletin* and the UM-St. Louis Student Handbook.

Career Outlook

The current economic climate appears to favor students with business training. Business school graduates with the B.S.B.A. degree usually obtain entry-level positions in areas requiring accounting, finance, management, management information systems, marketing, and quantitative backgrounds. Recent graduates of the School of Business Administration hold positions with a variety of local and national firms as accountants; internal auditors; sales representatives; cost, budget, and systems analysts; executive trainees; merchandisers; systems programmers; and purchasing agents.

Many graduates of the University's graduate business programs are employed in staff-level positions in local and national businesses, and opportunities for managerial posts are promising for the graduate with a master's degree in business administration. Additionally, several graduates have chosen to pursue careers in college teaching.

Business Administration

Course Descriptions

Courses in this section are grouped as follows: all undergraduate courses are listed under Business Administration; 400-level graduate courses are listed under Business Administration, Accounting, Finance, Management, Management Science/Information Systems, and Marketing.

The School of Business Administration uses the University course numbering system (see p. 5) with the following clarifications:

100 to 199, sophomore, junior, or senior standing is required unless a specific exception is listed.
200 to 299, junior or senior standing is required.
300 to 399, junior, senior, or graduate standing is required unless a specific exception or restriction is listed.

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 200- and 300-level Business Administration course.

93 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.

95 Topics in Business Administration (1-3)

Study of selected special problems in business and administration. May be repeated for credit with different topics. Cannot be included in BSBA program.

103 Computers and Information Systems (3)

The basic concepts of data processing and the fundamental principles of computer-based information systems are studied. The characteristics of computer hardware and software used in implementing business applications are considered. Students will develop skills in utilizing both mainframe and microcomputers.

104 FORTRAN Programming (3)

Prerequisite: 103. A study of the principles of programming digital computers using the FORTRAN language. Credit will not be granted for both 104 and Computer Science 122.

109 COBOL Programming (3)

Prerequisite: BA103 or Computer Science 125. Structured COBOL programming techniques for business applications are presented. Included are report generation, control breaks, output editing, debugging, tables, and sort concepts.

140 Fundamentals of Financial Accounting (3)

Prerequisites: Math 30 and completion of 27 credit hours. This is a one-semester course in financial accounting theory and practices, with primary emphasis upon the accounting cycle and the preparation and interpretation of corporate financial statements.

145 Managerial Accounting (3)

Prerequisites: Math 30 and BA140. 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.

156 Legal Environment of Business (3)

Prerequisites: Econ 51 and BA140. 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.

195 Topics in Business Administration (1-3)

Prerequisites: Vary with topic; contact the School of Business Administration. Study of selected special problems in business and administration. May be repeated for credit with different topics.

204 Financial Management (3)

Prerequisites: Econ 52, MT 105, and BA140, 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.

205 Contemporary Business Communication (3)

Prerequisites: English 10 or equivalent and a minimum campus GPA of 2.0 (Comm 40 recommended, but not required.) A forum wherein business writing and speaking skills are addressed. Communication unique to business organizations is critiqued. Emphasis is placed on writing and verbal communication skills necessary to succeed in the business environment.

206 Basic Marketing (3)

Prerequisites: Econ 51, 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.

Business Administration**207 Practicum In Investments (1)**

Prerequisite: 204 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.

209 File Management (3)

Prerequisite: 109 and a 2.0 campus GPA. The course covers job control language, utilities, partitioned data sets, updating of sequential files, indexed files, direct and/or relative files. The topics are implemented in a COBOL environment. A database management system is used to illustrate design and implementation of business applications.

210 Management and Organizational Behavior (3)

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 "classic" and current perspectives are provided.

212 Database Management Systems (3)

Prerequisites: 209 or 225 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.

215 Information Systems Analysis (3)

Prerequisites: 109, or 224, and a minimum campus GPA of 2.0. Techniques and philosophies of systems analysis are addressed. Included are: traditional versus structured design methods, computer-based tools for systems analysis, workbenches, design and analysis of database systems, maintenance of existing information systems, human/machine interfaces, and security and control.

224 Managerial Applications of Object-Oriented Programming I (3)

Prerequisites: (BA103 or Computer Science 122 or 125) 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.

225 Managerial Applications of Object-Oriented Programming II (3)

Prerequisites: 224 and a minimum campus GPA of 2.0. This course expands object-oriented skills taught in 224. 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.

250 Business Statistics (3)

Prerequisites: Math 100 and 105, BA103 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.

252 Introduction to Operations Management (3)

Prerequisites: A 2.0 campus GPA and either (Econ 51, BA 145, and BA 250) or (Math 180 and Statistics 132). 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.

256 Business Law: Contracts, Sales, Secured Transactions, Bankruptcy (3)

Prerequisites: BA140, Econ 51, and a 2.0 campus GPA, or junior standing and a 2.0 campus GPA. Introduction to the laws of contracts, sales, secured transactions, bankruptcy, and other selected topics.

257 Business Law: Negotiable Instruments, Business Organizations, Property (3)

Prerequisites: BA140, Econ 51, and a 2.0 campus GPA, or junior standing and a 2.0 campus GPA. Introduction to the laws of negotiable instruments, the principal-agent relationship, partnerships, corporations, property, and other selected topics.

270 Management of Promotion (3)

Prerequisite: 206 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.

275 Marketing Research (3)

Prerequisites: 103, 206, 250 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.

Business Administration

289 Career Planning (1)

Prerequisite: A minimum of junior standing and a 2.0 campus GPA. The emphasis of this course will be to assist business students to develop an understanding of themselves as related to employment, to develop an understanding of the world of work, and to integrate these so that effective career decisions can be made.

295 Business Administration Problems (1-10)

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 campus GPA. Study of selected special problems in business and administration. May be repeated for credit with different topics.

296 Independent Study (1-3)

Prerequisite: Permission of the professor, the dean, and a minimum campus GPA of 2.0. Occasional special individual study topics under the guidance of a specific professor.

301 Consumer Behavior (3)

Prerequisites: 206 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.

302 Quantitative Marketing Methods (3)

Prerequisites: 103, 206, 250 and a 2.0 campus GPA. Applications of stochastic, deterministic, and simulation techniques to decision areas, such as market potential, product diversification, physical distribution alternatives, retail location, media selection, and market exposure. Quantitative and computerized methods are used heavily to enhance decision making in marketing, especially the selection, allocation, budgeting, and forecasting of marketing resources.

303 Business-to-Business Marketing (3)

Prerequisites: Senior Standing, MT 105, BA206 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.

304 The Management of Information Systems (3)

Prerequisites: (109 or 224) and a minimum campus GPA of 2.0. 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.

305 Management of Telecommunications (3)

Prerequisite: 103 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.

306 Decision Support Systems (3)

Prerequisites: 252 and a minimum campus GPA of 2.0. Applications of decision support systems and expert systems in a business environment are studied. Relationships between decision support systems, expert systems, and database management systems are explored.

307 End-User Computing for Business Applications (3)

Prerequisite: (109 or 224) and a minimum campus GPA of 2.0. Issues in the management and practice of end-user computing are presented. The topics include information centers, Micro/Mainframe links, fourth generation languages, and end-user software packages.

308A Production and Operations Management (3)

Prerequisites: A minimum of 2.0 campus GPA and either (BA252 and Math 100) or (Math 250 and Statistics 132). 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.

308B Production and Operations Management-Logistics (3)

Prerequisites: A minimum of 2.0 campus GPA and either (BA 252 and Math 100) or (Math 250 and Statistics 132). Detailed study of the logistical management of organizations. Topics include transportation, routing, facility location, fleet design, and capacity planning.

308C Production and Operations Management-Manufacturing (3)

Prerequisites: A minimum of 2.0 campus GPA and either (BA 252 and Math 100) or (Math 250 and Statistics 132). Study of manufacturing processes, manufacturing management, and strategic aspects of manufacturing. Topics include facility design and location, production planning and scheduling, inventory control, quality control, and technological innovation.

Business Administration**308D Production and Operations Management-Service System (3)**

Prerequisites: A minimum of 2.0 campus GPA and either (BA 252 and Math 100) or (Math 250 and Statistics 132). The methods for managing the operations of service delivery systems, such as hospitals, banks, public safety, airlines, etc. Topics include facility design and location, queuing, and personnel scheduling.

309 Human Resource Management (3)

Prerequisites: MT105 and BA210, and a 2.0 campus GPA. In-depth examination of selected human resource management issues from a contemporary manager's viewpoint. Topics examined include: employee selection, performance appraisal, training and development, compensation, legal issues, and labor relations.

310 Information Systems Design (3)

Prerequisites: 212, 215, one of either 209 or 225 and a minimum campus GPA of 2.0. System design, implementation, and methods of systems installation and operation are presented. A system development project is required.

311 Advanced Management and Organizational Behavior (3)

Prerequisite: 210 and a 2.0 campus GPA. Building upon 210, 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.

312 Industrial and Labor Relations (3)

Prerequisite: 210 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.

315 Marketing Management (3)

Prerequisites: MT 105, BA206, one other three-hour marketing course, 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 decision are discussed. Cases, models, and problems are used heavily.

316 International Marketing (3)

Prerequisite: 206 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.

317 International Management (3)

Prerequisites: A minimum 2.0 campus GPA. In addition, Econ 52 and BA210; or permission of the area coordinator and the instructor. A study of international business and international 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.

318 Industrial and Organizational Psychology (3)

(Same as Psych 318.) Prerequisites: Psych 201 or (MT 105 and BA210). 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.

319 Employee Training and Development (3)

Prerequisite: A minimum 2.0 campus GPA. In addition, 210 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.

327 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 School 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.

328 Estate Planning and Trusts (3)

Prerequisite: A minimum campus GPA of 2.0; BA 204 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.

Business Administration

329 Business Forecasting (3)

Prerequisites: A minimum of 2.0 campus GPA and either (BA 252 and Math 100) or (Math 250 and Statistics 132). 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.

330 Quality Assurance in Business (3)

Prerequisites: A minimum of 2.0 campus GPA and either (BA 252 and Math 100) or (Math 250 and Statistics 132). 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.

331 Multivariate Analysis (3)

Prerequisites: A minimum of 2.0 campus GPA and either (BA 252 and Math 100) or (Math 250 and Statistics 132). A study of statistical techniques applicable to multivariable relationships.

332 Principles of Insurance (3)

Prerequisites: 204 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.

333 Life Insurance (3)

Prerequisites: 204 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.

334 Investments (3)

Prerequisite: 204 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 economy.

335 Financial Risk Management (3)

Prerequisites: 204 and a 2.0 campus GPA. A study of derivative securities (forward contracts, futures, swaps and options) used in financial risk hedging. Emphasis will be placed on financial innovations and methods for tailoring a preferred risk/return trade-off. In addition, a project or a simulation will be utilized to emphasize the effects of risk management on portfolio development.

336 Treasury Management (3)

Prerequisites: 204 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.

337 Principles of Real Estate (3)

Prerequisites: 204 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.

338 Practice of Personal Financial Planning (3)

A minimum campus GPA of 2.0; BA 204 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.

339 Retirement Planning and Employee Benefits (3)

Prerequisites: A minimum campus GPA of 2.0; BA 204 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.

340A Financial Accounting and Reporting I (3)

Prerequisites: A minimum 2.0 campus GPA. In addition, Math 30, BA140, 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.

Business Administration**340B Financial Accounting and Reporting II (3)**

Prerequisites: A minimum 2.0 campus GPA. In addition, Math 30 and BA340A. 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.

341 Financial Accounting and Reporting III (3)

Prerequisites: A minimum 2.0 campus GPA. In addition, Math 30 and BA340B. 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.

342 Financial Accounting and Reporting IV (3)

Prerequisites: A minimum 2.0 campus GPA. In addition, Math 30 and BA340B. 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.

343 Accounting for Governmental and Nonprofit Entities (3)

Prerequisites: A minimum 2.0 campus GPA. In addition, Math 30, BA140, and 57 credit hours. Principles of fund accounting and financial reporting for governmental and nonprofit entities.

344 Computer Applications in Accounting (3)

Prerequisites: A minimum 2.0 campus GPA. In addition, Math 30, BA103, 145, and 340A. Managerial and financial accounting applications of computers—budgeting, financial planning and analysis, and accounting information processing systems. Emphasis on development of systems for micro- and mainframe computers using high-level applications development software and on associated internal control and auditing problems.

345 Cost Accounting (3)

Prerequisites: A minimum 2.0 campus GPA. In addition, Math 30, BA145, and 57 credit hours. 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.

347 Income Taxes (3)

Prerequisites: A minimum 2.0 campus GPA. In addition, Math 30, BA145, and 57 credit hours. 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.

348 Auditing (3)

Prerequisites: A minimum campus GPA of 2.0. In addition, MT 105, BA340B, and 344 or 215. 344 or 215 may be taken concurrently. 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.

349 Business Income Taxation (3)

Prerequisite: A minimum 2.0 campus GPA. In addition, 347. A study of the federal income taxation of partnerships and shareholders and corporations, including subchapter S (small business) corporations with emphasis on problems encountered in their formation, operation, liquidation, and sale.

350 Financial Policies (3)

Prerequisites: 204 and a 2.0 campus GPA. The intensification and application of the concepts developed in 204. 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.

351 Computer Applications in Finance (3)

Prerequisites: 103, 204, 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-based finance projects: present value/IRR analysis, duration, immunization, portfolio optimization, leasing, capital budgeting, financial forecasting, options, and futures.

355 Financial Services Industry and Instruments (3)

Prerequisites: 204 and a 2.0 campus GPA. The theory of financial services, instruments, and markets is discussed. In this framework, the valuation consequences of money and capital markets, corporate control, complex contracting, and regulatory environment are developed. Topics also include hedging, interest rate risk, deposit insurance, and financial instruments.

356 Commercial Bank Management (3)

Prerequisites: Econ 52, BA204, 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.

Business Administration

375 Operations Research (3)

Prerequisites: Math 100, BA 252, and a 2.0 campus GPA, or Math 250 and a 2.0 campus GPA. 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.

380 International Finance (3)

Prerequisites: Econ 51, BA 204 and a 2.0 campus GPA. A study of the international financial markets, instruments, and portfolio strategies. Topics will include international risks, foreign diversification and hedging techniques for international exposure. The use of derivative instruments and special markets are evaluated in the international corporate/investment setting.

385 Operations Research II (3)

Prerequisites: A minimum of a 2.0 campus GPA, BA 375 and either BA 250 or Statistics 132. Topics of special interest including mathematical programming, stochastic decision making, digital simulation, game theory, and other selected techniques. (Formerly Mathematical Programming).

390 Business Assessment Testing (0)

Prerequisite: Concurrent enrollment in BA 391. 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.

391 Strategic Management (3)

Prerequisites: Senior standing and BA 204, 206, 210, a minimum campus GPA of 2.0; and concurrent enrollment in BA 390. 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.)

392 Entrepreneurship/Small Business Management (3)

Prerequisites: BA 156, 204, 206, 210, 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.

395 Business Administration Seminar (1-10)

Prerequisite: To be determined each time the course is offered and to include a minimum 2.0 campus GPA. May be repeated for credit.

396 Internship in International Business (3-6)

Prerequisites: Econ 51 and 52, BA 140 and 145, an additional 12 hours in BA, concurrent enrollment in a UM overseas program; also a 2.0 minimum campus GPA. The 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 a UM-St. Louis 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 6 hours credit.

405 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.

408 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.

410 Managerial Economic Analysis (3)

Prerequisites: BA 408 or Econ 51 and Econ 52. 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.

411 Analysis of National Economic Environment (3)

Prerequisites: BA 408 or Econ 51 and Econ 52. 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.

412 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.

Business Administration

414 Introduction to Geographic Information Systems (3)

Prerequisites: MS/IS 481 or equivalent, and consent of instructor. Geographic information systems (GIS) are sophisticated computer-based systems for analysis, capture, presentation and maintenance of geographically referenced data. This course includes extensive use of GIS software and provides a foundation in using GIS for spatial analyses. A range of examples are used to emphasize use of GIS as a tool to support analysis and decision making.

415 Societal, Environmental, and Management Decisions (3)

Prerequisites: BA 408. An examination of the external relationships of a business enterprise with the broad and diverse interests of society. These are government and social forces that sometimes operate counter to the potential dictates of theoretical internal economic policies for an individual organization. The primary objective is to examine the increasingly complex set of interrelationships among business, government, other economic groups, and "the public." A series of major current problems, chosen to raise some of the major issues involved in these interrelationships, and in particular to explore the development of public policy on such problems.

416 International Finance, Investment, and Commercial Relations (3)

Prerequisite: BA 450. The objectives of this course are to: provide a knowledge of the various international markets and securities; gain insight into the complexities of international risks when investing; and, study the use of international hedging vehicles to manage foreign exchange risk.

417 International Business Operations (3)

Prerequisite: BA 416. Functional management within multinational corporations; case studies of operations abroad; and focus on managerial decision making.

418 Governmental Budgeting and Financial Control (3) (Same as Public Policy Administration 418.)

Prerequisite: Accounting 440. 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.

420 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.

428 Current Topics in Business Administration (1)

Examination of a Business Administration topic of current interest. Instruction by regular graduate faculty, frequently supplemented by outside authorities (practicing managers, government officials, consultants, visiting faculty, etc.). Course may be taken three times for credit.

430 Individual Research (1-10)

Prerequisite: Consent of instructor and graduate director. Special individual research topics under the guidance of a specific professor.

490 Strategy Formulation and Implementation (3)

Prerequisites: FIN 450, MGT 460, MKT 470, MS/IS 433. 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.

Accounting (400-level)

419 Management Accounting and Auditing in Governmental and Not-for-Profit Entities (3)

Prerequisites: BA 418 and Accounting 441 or consent of instructor. A study of accounting for use in the public sector and in not-for-profit organizations. Cost behavior controllability, and traceability concepts for management planning and control will be investigated, as well as auditing in the public sector.

421 Professional Accounting Research (3)

Prerequisite: BA 341. 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.

422 Seminar in Governmental and Non-Profit Accounting (3)

Prerequisites: BA 418. Consideration of the positions of authoritative groups concerning accounting theory and practice for governmental and nonprofit entities. Evaluation and critical analysis of these positions in view of current accounting literature and research finding.

431 Tax Research (3)

Prerequisite: BA 347 or consent of instructor. A discussion of the research tools and methods available to resolve questions pertaining to the tax laws. Addresses techniques for locating, verifying, and evaluating authority. Students will be expected to complete a number of tax research and writing problems throughout the semester. A basic understanding of the federal income tax law is presumed.

432 Taxation of Estates, Gifts, and Trusts (3)

Prerequisites: BA 347 and Accounting 431, or consent of instructor. Consideration of the transfer tax systems in general; the elements of the gross estate (including versus nonincludible property), deductions (including the marital deduction) and credits; the gift tax and what it embraces; basic estate planning considerations; and income taxation of grantor and nongrantor trusts.

Business Administration

433 Taxation of Corporations and Shareholders (3)

Prerequisites: BA 347 and Accounting 431, or consent of the instructor. Addresses tax aspects of the formation, operation, and liquidation of a corporation, as well as changes in the corporate structure through division or reorganization. Topics include establishment of the corporate structure, distributions to shareholders, and stock dividends and redemptions.

434 Taxation of Partnerships and Partners (3)

Prerequisites: BA 347 and Accounting 431, or consent of instructor. Addresses tax aspects of the formation, operation, and termination of a partnership. Topics include special allocations and disposition of a partnership interest. Compares partnerships with Subchapter S corporations.

435 Tax Practice and Procedure (3)

Prerequisite: BA 347 or consent of the instructor. Addresses the audit process; practice before the Internal Revenue Service; administrative appeals; the notice of deficiency; waivers and extensions; amended returns and claims for refund; statute of limitations on deficiencies and overpayments; and taxpayer and tax return preparer penalties.

436 Advanced Topics in Taxation (3)

Prerequisites: BA 347 and Accounting 431, or consent of instructor. Addresses various topics selected by the instructor, such as property transactions, compensation plans, charitable contributions, the alternative minimum tax, and tax planning.

439 Seminar in Taxation (3)

Prerequisite: At least nine hours of 400-level tax courses including Accounting 431 or consent of the instructor. Addresses tax policy topics drawing on literature from accounting, economics, and public finance. Other topics of current interest will be selected by the instructor.

440 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 Accounting 442 (Accounting for Decision Makers).

441 Concepts in Management Accounting (3)

Prerequisites: Math 100 or Econ 301 with a minimum grade of "C" and Accounting 440. 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.

442 Accounting for Decision Makers (3)

Prerequisites: Accounting 440 or the equivalent. This course builds on the foundations covered in Accounting 440, emphasizing the use of accounting information for making operating, investment, and strategic business decisions. Topics covered include interpretation and analysis of financial statements, uses of accounting information by capital market participants, contribution margin analysis, tactical decision making, pricing and product decisions, budget analysis, and performance measurement.

443 International Accounting (3)

Prerequisites: BA 340B. 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.

445 Seminar in Financial Accounting Theory (3)

Prerequisite: Accounting 421. A study of theoretical issues, such as the foundations of accounting standards and the usefulness of accounting information. Analysis of how elements of accounting theory relate to current issues facing the profession.

446 Seminar in Auditing (3)

Prerequisites: BA 348 or permission of instructor. 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.

447 Accounting Systems for Management Planning and Control (3)

Prerequisites: Accounting 441 and MS/IS 481, or permission of instructor. 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.

Business Administration

448 Seminar in Advanced Theory and Contemporary Issues in Accountancy (3)

Prerequisite: Accounting 445 and MS/IS 481. Examines the theory underlying accounting practice. The course includes an in-depth analysis of contemporary developments in financial accounting with a succinct overview of accounting research paradigms.

449 Systems Auditing (3)

Prerequisites: Accounting 440, MS/IS 480, 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.

Finance (400-level)

450 Financial Management (3)

Prerequisites: ACC 440 (or BA 140), MS/IS 481 (or BA 250), and BA 408 (or Econ 51 and Econ 52). 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.

451 Advanced Financial Management (3)

Prerequisites: Finance 450 and MS/IS 481. 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.

455 Security Analysis (3)

Prerequisites: Finance 450 and MS/IS 481. 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.

456 Capital Markets and Financial Institutions (3)

Prerequisite: Finance 450. The theory of financial intermediation is discussed in the context of banks, savings and loans, public and private insurance companies, and investment banking. In this framework, the relationship with money and capital markets, markets for corporate control, complex financial contracting, and regulatory environment is developed.

457 Introduction to Derivatives (3)

Prerequisite: Finance 450. An in-depth study of advanced risk management techniques utilizing futures, forwards, options, swaps and synthetic securities. A broad study of speculative market characteristics will be reviewed in conjunction with a variety of financial innovations. Portfolio management theories combined with mathematical models will be utilized to demonstrate the effects of hedging techniques and portfolio insurance.

458 Commercial Bank Management (3)

Prerequisite: Finance 450. 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 regulation.

459 Seminar in Finance (3)

Prerequisite: BA 450. 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.

Management (400-level)

460 Organizational Behavior and Administrative Processes (3)

(Same as Public Policy Administration 460.) 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.

461 Managing Human Resources (3)

Prerequisite: Management 460. 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.

462 Advanced Organizational Behavior and Administrative Processes (3)

Prerequisite: Management 460. 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.

463 Organizational Training (3)

Prerequisite: Management 460 or Management 461 or permission of department. An intensive study of training and developmental methods/issues in organizations. Topics include needs analysis, learning theory, training techniques, evaluation, and management development. Other topics include memory, training objectives, and training facilities. Projects and exercises are used to supplement reading and lecture.

Business Administration

464 Compensation and Benefits (3)

Prerequisites: Management 461 and Management Science and Information Systems 481. An in-depth study of compensation and benefit programs in organizations. Topics include job evaluation, incentive systems, performance appraisal, and employee benefits. Discussion of relevant laws, such as the Equal Pay Act, is also provided.

465 Union-Management Relations and Collective Bargaining (3)

Prerequisites: Management 460 and BA 412. 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.

466 Selected Topics in Human Resource Management (3)

Prerequisites: Management 461 and MS/IS 481. 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.

467 Dynamics of Interpersonal Relations (3)

Prerequisite: Management 460 or academic background in general psychology. The self-concept, personality dynamics, and mechanisms of adjustment. Catalysts and barriers to effective communication. Examination of the functional relationship between ego-needs, perceptual distortion, and stereotypical thinking. Roleplaying, the resolution of role-conflict, and objective self-evaluation. The development of cooperation and trust as a prerequisite to effective human relations.

468 International Business Strategies (3)

Prerequisites: BA 408 and ACC 440. 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.

469 Seminar in Management (3)

Prerequisite: MGT 460. Topics of current interest in management. Possible topics include, human resource management, international management, and entrepreneurship.

Management Science/Information Systems (400-level)

423 Managerial Applications of Object-Oriented Technologies (3)

Prerequisite: MS/IS 480. This course deals with business-oriented programming in an object oriented environment. The emphasis will be on program definition, and tools and development in a client-server environment. The course will involve the study of an object-oriented language in addition to object-oriented methodologies for systems development.

424 Seminar in Current Management Information System Topics (3)

Prerequisite: MS/IS 488 or MS/IS 491. Advanced topics of current interest in management information systems. Content to be determined each time the course is offered. May be repeated for credit.

424b Seminar in Management Information Systems (3)

Prerequisite: MSIS 480. 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.

425 Advanced MIS Applications (3-6)

Prerequisite: MS/IS 488 or permission of instructor. The course requires a project through which the student applies MIS concepts to a real problem; a written, professional quality report will be required. The course material must build upon, not duplicate, material in the MIS curriculum. The course may be repeated for credit with the permission of the MS/IS area. Consent of the MS/IS area for the topic and number of hours is required.

426 Management of Client/Server Computing (3)

Prerequisite: MSIS 496. This course explores a wide range of topics necessary for the management of client/server computing technology. Students will explore the business advantage and opportunities that client/server systems can provide an organization. In addition, the course will introduce topics of importance to implementing technology in an organization. Finally, the course will provide a framework for understanding the diverse technical components of client/server technology, technical standards and their implications for inter-operability of components.

430 Quality Management (3)

Prerequisite: MSIS 481 or Stat 320 or consent of instructor. (Same as Math 437). 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, Baldrige 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.

Business Administration**469 Seminar in Management (3)**

Prerequisite: MGT 460. Topics of current interest in management. Possible topics include, human resource management, international management, and entrepreneurship.

480 Management Information Systems (3)

(Same as Public Policy Administration 480.)

Prerequisite: Econ 301. An overview of management information systems is presented, including IS managerial concepts and hands-on exposure to technology. Concepts include alignment of information systems strategy with organizational strategy, MIS components and organizational structures, issues in the design and implementation of systems, and understanding the role of information systems in organizations. Students are exposed to several technologies, including the information superhighway, application software packages, and a programming language.

481 Statistical Analysis for Management Decisions (3)

Prerequisites: MS/IS 480 (may be taken concurrently) and Econ 301 with a minimum grade of "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.

482 Management Science Methods (3)

Prerequisite: MS/IS 483. 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.

483 Production and Operations Management (3)

Prerequisite: MS/IS 480 and 481. 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.

484 Business Programming and File Systems (3)

Prerequisite: MS/IS 480. The course provides a study of business-oriented programming. The programming language COBOL will be introduced and studied in detail. Emphasis will be on program definition and the use of file structures in business-oriented applications.

485 Management Information Systems: Theory and Practice (3)

Prerequisites: MS/IS 480. The course focuses on current information systems theory and practice and on the fit between information systems and the organization. Theoretical foundations of information systems are applied to actual cases that encompass information systems development, implementation, and post implementation management.

486 Advanced Statistical Methods for Management Decisions (3)

Prerequisite: MS/IS 481. A study of statistical methods applicable to specialized areas of statistical analysis. Topics include Markov processes, distribution-free tests, sampling theory and methods, experimental design, time series analysis, and spectral analysis.

487 Advanced Operations Research Applications (3)

Prerequisite: Consent of instructor. Application of operations research techniques to business problems. After a brief review of these techniques, followed by an examination of typical applications reported in the literature, the major portion of the term is spent in analyzing and solving an actual business operations research problem. A team approach is used, with groups of two or three students responsible for finding and solving an operations research problem in a local company. Primary emphasis is placed on the use of operations research techniques to solve management problems.

488 Information Systems Analysis (3)

Prerequisite: MS/IS 484. 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.

489 Database Management Systems (3)

Prerequisite: MS/IS 484. 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.

491 Computer Systems: Architecture and Programming (3)

Prerequisite: MS/IS 484. This is an introduction to concepts of comparative computer architecture and its relationship to the operating system software which augments the architecture. An assembly language is studied.

Business Administration

492 Information Systems Management (3)

Prerequisites: Accounting 440, Management 460, Marketing 470, and MS/IS 485. The course covers the management of computer-based information. Issues relating the decisions of the chief information officer to the strategic planning of the organization are discussed. Further topics may include: cost and value of information, hardware/ software evaluation and acquisition, systems implementation, performance measurement and evaluation, and organizational and behavioral issues.

493 Simulation for Managerial Decision Making (3)

Prerequisites: MS/IS 481 and (482 or 483). 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.

494 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.

494b Seminar in Logistics and Operations Management (3)

Prerequisite: MSIS 483. 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.

495 Information Systems Design (3)

Prerequisites: MS/IS 488, and MS/IS 489. This course builds upon the analysis techniques presented in Management Science/Information Systems 488. 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.

496 Telecommunications: Design and Management (3)

Prerequisite: MS/IS 480. 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.

497 Decision Support Systems (3)

Prerequisite: MSIS 481. Applications of decision support systems in a business environment are studied. Issues pertaining to maintenance of data, construction of models and provision of supporting technology are explored. Students will analyze, design and implement a managerial decision support system using current development tools.

498 Fourth Generation Languages and End User Computing (3)

Prerequisite: MS/IS 480. The course presents fourth generation languages and covers managerial issues of end-user computing. A specific fourth generation language will be introduced and programming applications will be assigned. In addition, the course will explore the problems of providing and managing micro-to-mainframe links, end-user software packages, and security/confidentiality issues.

499 Management Information Systems Thesis Research (1-6)

Credit to be awarded only upon successful defense of thesis.

Marketing (400-level)

470 Contemporary Marketing Concepts (3)

Prerequisites: BA 408. 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.

471 Marketing Planning and Strategy (3)

Prerequisite: Marketing 470. 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.

474 Seminar in Marketing (3)

Prerequisite: Marketing 470. 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.

Business Administration

475 Consumer Motivation and Behavior (3)

Prerequisite: Marketing 470. 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.

476 Marketing Communications (3)

Prerequisite: Marketing 470. 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.

477 Product Planning and Pricing (3)

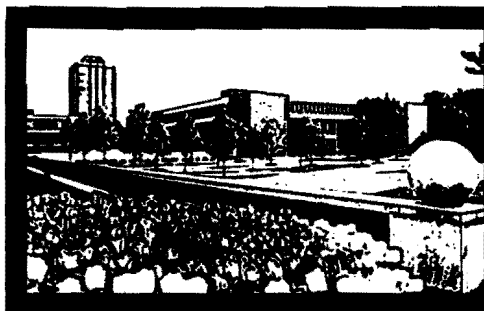
Prerequisite: Marketing 470. A study of product management focusing on new product development. The steps of the new product development process are covered in detail. Current issues in new product research are discussed. Projects are emphasized and involve the application of several of the key techniques to the student's own new product ideas. Selected pricing topics are also covered, such as measuring consumer price sensitivity.

478 Marketing and Business Research (3)

Prerequisites: Marketing 470 and MS/IS 481. 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.

479 Marketing Channel Strategy (3)

Prerequisites: MKT 470 and MS/IS 483. A study of the marketing institutions involved in the distribution of goods and services, industrial and consumer markets, as well as the establishment and integration of marketing channels. The planning and analysis of the macrodistribution and microdistribution systems which contribute to creation of optimal time and place utility. Some attention is paid to quantitative applications to marketing situations including simulation and logistics.



School of Education

Accreditation

The University of Missouri-St. Louis, through the School of Education, is accredited by the National Council for Accreditation of Teacher Education for the preparation of elementary and secondary school teachers and school service personnel.

Course Designations in the School of Education

The following abbreviations are used to indicate instructional areas in the course listings and descriptions in the School of Education.

Adult Education Courses (**ADU 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 (**ED REM**)
 Educational Technology Courses (**ED TEC**)
 Elementary Education Courses (**ELE ED**)
 Physical Education Courses (**PHY ED**)
 School-Wide Education Courses (**EDUC**)
 Secondary Education Courses (**SEC ED**)
 Special Education Courses (**SPC ED**)

Teacher Education

Degrees and Areas of Concentration

The School of Education offers work leading to the B.S. in Education with specialization in any of the following: early childhood education, elementary education, special education, physical education, and secondary education. Courses are also available for those seeking certification for middle school. In cooperation with other Schools and Colleges of the University, the School provides a program for students pursuing other degrees but planning on a teaching career in secondary education.

General Education Requirements

Students in the School of Education must meet University and departmental general education requirements specified for their degrees.

Academic Residence

Students must be in residence for 30 of the last 30 semester hours of graded 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.

Attention Education Majors: Professional Education courses must be completed with a grade point average of 2.50 and no grade lower than a C (2.0). A C- grade is not acceptable.

Admission Policies

Types of Admission Students who wish to become teachers must be aware of two types of admission. One is admission to the School of Education, the other is admission to the Teacher Education Program. These serve completely different purposes and are separate procedures handled by different offices.

Application and Admission To The School Of Education

Students intending to teach in elementary, early childhood, middle school/junior high, secondary, special education, business education, or physical education settings must apply for admission to the School of Education. However, Evening College students do not need to apply to the School of Education, but should declare their major as education in the Evening College office when they have accumulated 40 credit hours. Students intending to teach in secondary-school classrooms other than specified above may elect to pursue the B.S. in Education or to receive degrees from other University Colleges and Schools and also meet teacher certification requirements. Students admitted to the School must also be admitted to the Teacher Education Program.

Application to the School is processed through the Admissions Office. Eligibility is based upon the following criteria:

- 1) Satisfactory completion of two years of college work, with a minimum of 60 semester hours with a grade point average of 2.0 or above.
- 2) Having no more than nine hours of deficiencies in general education.
- 3) Completion of the specific prerequisites and/or other special requirements of the curriculum areas for which students are applying.

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 regardless of the College or School in which they are enrolled. The admission program requires student action at the following two levels.

Applications to the Teacher Education Program are processed through the Office of Teacher Education. Eligibility is based upon fulfillment of the following requirements:

- 1) Students not previously admitted to the Teacher Education Program (acceptance of 60-Hour Form) must submit qualifying scores on the College Basic Academic Subjects Evaluation (C-BASE) in the areas of English, Writing, Mathematics, Science, and Social Studies as mandated by the Missouri Excellence in Education Act of 1985. Consult the Office of Teacher Education, School of Education, for test descriptions, cost, required scores, dates of administration, retest policies, etc. Acceptable C-BASE scores are required in addition to acceptable ACT or SAT scores. (C-BASE not applicable to students with a bachelor's degree. Graduates of the General Studies Program in the UM-St. Louis Evening College, however, must take the C-Base).
- 2) Scored either 20 on the ACT Composite (18, when taken prior to 11-1-89) or 800 on the SAT (verbal plus math)*.
- 3) Completed 60 hours of college or university courses (at UM-St. Louis or another accredited school).
- 4) Accumulated a grade point average of 2.5 or better.
- 5) Completed EDUC 101, Introduction to Classroom Teaching, or the equivalent, with a grade of C or better. (Not applicable for secondary education or early childhood education majors).
- 6) Completed ED FND 111, The School in Contemporary Society, or the equivalent, with a grade of C or better.
- 7) Received screening test in hearing (at nominal cost at

Teacher Education

the UM-St. Louis Health Center or off campus at personal expense).

8) Received screening test in vision (at no cost at UM-St. Louis Optometry Clinic or off campus at personal expense).

9) Agreed to adhere to ethical codes which have particular pertinence during clinical experiences. (These codes are available in the Office of Teacher Education, School of Education.)

10) Agreed to subscribe to a standard of preprofessional behavior which will enhance greater self-awareness if social or emotional difficulties arise which may affect future teacher effectiveness. (This standard is available in the Office of Teacher Education.)

11) Submitted a notarized Affidavit of Moral Character which includes a criminal check and child abuse/neglect screening.

*** Policy for Students Scoring Below ACT and SAT Qualifying Requirements** Students who do not achieve satisfactory scores of 20 on the ACT or 800 on the SAT may re-take the test(s) until the requirement is met. Students who initially score below the required ACT score of 20 or SAT score of 800 may petition the Dean of Education to attest that basic educational competencies are met if their grade point average from 60 hours of college or university courses is at least 2.50 and they have performed satisfactorily on a norm-referenced achievement test other than ACT or SAT. Students must produce evidence that the ACT or SAT was initially completed and a score recorded.

Students with a documented disabling condition, preventing valid test administration of the ACT or SAT, may be evaluated for basic educational competencies through appropriate testing instruments and/or procedures designated and approved by the Dean of the School of Education.

Students who do not meet the initial ACT or SAT qualifying scores may seek assistance in upgrading basic competencies through contact with one or more of the following University of Missouri-St. Louis services:

Center for Academic Development
Women's Center
Counseling Service
Veteran Affairs Office
Video Instructional Program
Horizons (Peer Counseling Center)

In addition, assistance may be available through correspondence courses, University of Missouri-Columbia. Copies of this policy are available in the Office of Teacher Education.

Student Teaching

Application to the Student Teaching Program The application for student teaching is a two part process which begins two semesters prior to the semester in which the student plans to do student teaching.

Deadlines	Pre-application	Formal Application
Fall student teaching	*1st week in December	Beginning of winter semester prior to student teaching
Winter student teaching	*1st week in August	Beginning of fall semester prior to student teaching

*Check Student Teaching Bulletin Board in Marillac Hall for exact date.

Step I Pre-application: Students must submit both of the following items to the Office of Teacher Education, Room 155, Marillac Hall:

- 1) an autobiography and philosophy of education written according to guidelines on reserve (number 456) in the Education Library; and
- 2) proof of formal acceptance to the Teacher Education Program (approved 60 hr. form), required of both pre- and post-degree students. Students will then sign an application list and receive a ticket to attend the formal application meetings which will be held at the beginning of the semester.

Step II Formal application: Students:

- 1) must attend one of three formal application meetings offered at the beginning of each semester to receive application materials. Dates and times will be posted on the Student Teaching Bulletin Board in Marillac Hall;
- 2) will be admitted to the meetings by ticket only; autobiographies and philosophies will be returned at this time. (See Pre-application above);
- 3) will complete and return applications within two weeks after the meetings to the Office of Teacher Education, Room 155 Marillac Hall. Applications will not be accepted after the deadline.

Upon receipt, formal applications for both pre- and post-degree students are checked to ensure they have met the following requirements:

- 1) Full admission to the Teacher Education Program for both pre- and post-degree students.
- 2) Completion of 90 hours of approved course work at the time of application.
- 3) A cumulative grade point average of 2.5 or above by the semester prior to the one in which students plan to do their student teaching. 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.
- 4) Grade point average of 2.5 in the teaching field (secondary education students only).
- 5) Completion of English 210, Advanced Expository Writing, or equivalent, with a grade of C- or better.
- 6) Completion of Comm 40, or equivalent, Introduction to Public Speaking, with a grade of C- or better.
- 7) Completion of general education requirements and near completion of course requirements in the teaching major.

Teacher Education

- 8) A grade of C or better in all professional education courses so designated. Lists of these courses are available in the Office of Teacher Education and from advisers. A C- grade is not acceptable.
- 9) Satisfactory recommendations by students' teaching area representatives in the Teacher Education Program.
- 10) Completion at UM-St. Louis of no fewer than 12 hours of approved course work.
- 11) Completion of prerequisite courses in professional education and psychology.
- 12) Completion of TB screening, police, and child abuse checks.

The student teaching experience in the Early Childhood, Elementary Education, Middle School, Physical Education, and Special Education certification programs has been strengthened by providing assignments in two different school settings and appropriately increasing the amount of time devoted to it. Students will be expected to do student teaching on a full day basis for an entire semester.

Student teaching, which must be done in residence, is not offered during the summer except for people who hold a Missouri teaching certificate and want to add another Special Education area for certification. Secondary student teaching in science education, mathematics education, and foreign language education is offered only during the Winter Semester. Secondary education majors student teach for an entire semester, full days.

While enrolled in student teaching, students may not carry more than 15 credit hours. When students are admitted to student teaching, the Office of Teacher Education arranges assignments with appropriate school district officials. Students should not contact school officials or teachers about possible student teaching assignments. Failure to observe this request is a basis for removal from student teaching.

Upon special request student teachers may be placed in outlying areas provided there are three students located in approximately the same geographic area. Individual requests cannot be honored.

Students who withdraw from student teaching at any time after being admitted for a given semester must formally reapply during the designated application period for the subsequent semester in which they plan to do their student teaching. This must be done in person in the Office of Teacher Education. Students who withdraw in this way three times must wait a minimum of one calendar year after the third such withdrawal before they may re-apply for student teaching. At the time of re-application they must present evidence that the circumstances which prevented them from continuing in student teaching during their last admission no longer pertain. In all instances of re-application, students must meet the requirements in effect for the semester during which they plan to do their student teaching.

Student teachers who fail the course or are allowed to withdraw because they are failing to meet minimum requirements must wait at least one full semester and fulfill the remedial requirements established at the time of the failure or withdrawal before they may re-apply for admission to student teaching. The remedial requirements will be determined by the Office of Teacher Education after consultation with the cooperating teachers, University supervisors, and student teachers involved. The students must provide appropriate evidence that the remedial requirements have been met at the time they re-apply for admission to student teaching. It is understood that meeting the remedial requirements does not guarantee success in the subsequent student teaching experience.

For further information regarding certification, contact the Office of Teacher Education, 155 Marillac Hall.

Application for Degree and/or Certificate

Bachelor of Science in Education

Candidates for the B.S.Ed. degree must complete degree and certificate application forms in the Office of Teacher Education when they apply for admission to student teaching or during the semester before the one in which they expect to finish degree requirements.

Evening College students should complete degree application forms in the Evening College Office and certification application forms in the Office of Teacher Education.

Bachelor of Arts

Students seeking the B.A. degree with teacher certification must complete a state certification form with the Office of Teacher Education.

Certification

In cooperation with the Missouri State Department of Elementary and Secondary Education, the School of Education is responsible for recommending teaching certificates for students completing B.S. in education degree requirements, recommending for certification students completing degrees in other UM-St. Louis Colleges and Schools, as well as all certification requirements, advising, and recommending for certification those post-degree students who meet requirements.

Beginning September 1, 1991, all individuals must pass the appropriate Praxis/National Teacher's Examination in order to meet graduation and/or certification requirements. This exam should be taken during the semester immediately prior to that of student teaching

Graduate Studies in Education

By completion of specified undergraduate courses at the University of Missouri-St. Louis, certification may be obtained in the following fields: elementary education; early childhood education; middle school/junior high; music education; physical education; special education: behavioral disorders (BD), educable mentally handicapped (EMH), learning disabilities (LD); as well as the secondary education areas of biology, business, chemistry, English, foreign languages (French, German, Spanish), mathematics, physics, social studies, and speech/theatre. Graduate programs leading to certification in counseling; reading; psychological examiner; school administration (elementary and secondary principal, school superintendent); and special education: behavioral disorders (BD), learning disabilities (LD), educable mentally handicapped (EMH), and early childhood special education ECSE) are also available; see Graduate Studies sections for each department of the School of Education.

Degrees and Areas of Emphasis

M.Ed. programs are offered in Counseling, educational administration, elementary education, secondary education, and special education. Within the counseling program are the emphasis areas of elementary, secondary, and community counseling. Within the Educational Administration program are the emphasis areas of community education, elementary administration, and secondary administration. Within the Elementary Education program is the emphasis area of reading. Within the Secondary Education program are the emphasis areas of adult education, curriculum and instruction, and reading. Within the Special Education program are the emphasis areas of behavioral disorders, learning disabilities, mental retardation, and early childhood/special education. Courses are available for areas of specialization in early childhood education, physical education, and severe handicaps.

Advanced certification studies (60-hour concentrations) are offered in elementary and secondary educational administration.

Programs leading to the Ed.D. degree are offered in two broad interdisciplinary emphasis areas: learning-instructional processes and behavioral-developmental processes.

Master of Education Degree

Admission and General Requirements

The School 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 except the elementary, secondary, and community counseling emphases require 48 hours. The school has adopted a flexible policy on exit requirements which are determined departmentally.

Advisement and Program Planning

After acceptance, each student completes an adviser form, sent by the School of Education's Office of Graduate Studies, 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 two-thirds 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 Office of Teacher Education, 155 Marillac Hall, one year before those requirements will be completed.

Doctor of Education Degree

The Ed.D. degree is designed primarily for the field practitioner, and is, therefore, a comparatively broad-based interdisciplinary degree. The two emphasis areas, learning instructional processes and behavioral-developmental processes, embrace two general categories of professional activities.

Learning-instructional processes place primary emphasis on the teaching-learning relationship, as well as on general planning and development of organizational programs to carry on this relationship successfully. Traditional programs that tend to fall under this heading are school administration, elementary and secondary teaching, supervision/curriculum, and reading instruction.

Behavioral-developmental processes place primary emphasis on the nature of individuals. Doctoral studies focus on such elements as learners' behavioral and developmental characteristics, typical and atypical development within varied environments, motivation, strategies of behavioral change, and counseling processes. Traditional programs that tend to fall under this heading are counseling, special education, educational psychology, and measurement. Students seeking the Ed.D. degree are expected to meet the doctoral degree requirements and procedures adopted by the Graduate School. (See Doctoral Degree Requirements for details.)

Admission and General Requirements

In addition to meeting the application and admissions requirements of the Graduate School, students must submit three letters of recommendation, preferably from individuals with earned doctorates (two letters must be from individuals with an earned doctorate), 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.

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.

Graduate Studies in Education

Admission Application

In order to ensure time for review and decision, complete applications and accompanying materials must reach the Office of Admissions by September 15 for the Winter Semester and February 15 for the Summer or Fall Semester. In addition, applicants are urged to request transcripts and letters of recommendation two weeks before submitting their papers. Consideration of applications cannot be undertaken until all materials are available.

Degree Requirements

1) Core Studies

General Foundations, 12 hours from:
Philosophical, historical, psychological, sociological, anthropological, and comparative foundations of education, as well as curriculum, instruction, and supervision.

Research Methods, 12 hours from:

6 hours from:
Educational research methods
Multiple linear regression
Nonparametric statistics

6 hours from:

Qualitative research methodology

Common doctoral seminars, 6 hours

2) Role Specialization, 48 hours from:

Emphasis area doctoral seminars (6-12)
Emphasis area electives (15-27)
Related area (12-18)
Internship (3-9)

3) Dissertation, 12 hours

Total: minimum 90 hours, post-baccalaureate

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. Three emphases are available:

Counseling and Educational Psychology
Teaching-Learning Processes
Metropolitan Leadership and Policy Analysis in Education

Admission and General Requirements

In addition to meeting the application and admissions requirements of the Graduate School, students must submit:

1. Three letters of recommendation (at least two from individuals with earned doctorates)
2. An original essay
3. A professional resume

4. Evidence of above-average academic records
5. GRE scores (a composite [verbal, quantitative, and analytical subtests] score of 1500 or better desired)

A favorable vote of an admission interview committee, composed of faculty in the emphasis area, is required. Admission is competitive.

Admission application

In order to ensure time for review and decision, complete applications and accompanying materials must reach the Office of Admission by September 15 for the Winter semester and February 15 for the Summer or Fall semesters. In addition, applicants are urged to request transcripts and letters of recommendation at least two weeks before submitting their papers. Consideration of applications cannot be undertaken until all materials are available.

Degree Requirements (minimum 90 semester hours: post-baccalaureate)

General Foundations, 9-12 hours from:

Philosophical, historical, psychological, sociological, anthropological, and comparative foundations of education, as well as curriculum, instruction, and supervision.

Research Methods, 15-18 hours:

Educational Research and Evaluation Methods (ED REM) 431: Educational Research Methods I, and at least 12 hours from ED REM courses numbered above 431: six hours in quantitative methods and six hours in qualitative methods.

Foreign Language Proficiency or Other Research Tools, equivalent to 6 hours

Emphasis Area (Primary Discipline) courses, 21-27 hours, with at least 16 in residence

Related (Secondary Discipline) courses, 12-15 hours, in education or another department.

Required Exit course, 3 hours

Education 415 Common Doctoral Seminar: Research: Implementing Change in Educational Systems

Research Internship, 6-9 hours

Dissertation, 12 hours

Graduate Studies in Education

Support Services

The School 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.

Office of Teacher Education -155 MH

This Office supplies advisement services for undergraduate teacher education and certification students. It coordinates the clinical experiences of the School of Education and directs the student teaching program.

Office of Graduate Studies in 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, and related topics, and maintains student records.

Teacher Education Resource Center -G01

The Center is designed as an instructional media laboratory. The Instructional Technology Center located in Lucas Hall also has an office in the Center.

Human Services Unit -B23A ED LIB

The Human Services Unit is a training facility for graduate students supervised by faculty in the Department of Behavioral Studies. Career counseling and assistance with vocational, adult, or adolescent developmental concerns are available to individuals in the community.

Reading Clinic -B9 ED LIB

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 pre-service and in-service 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.

School-Wide Courses in Education

Course Descriptions

Course Area Key

The following abbreviations are used to indicate instructional areas in the School of Education:

Education (EDUC)

65 The University (3)

A School of Education interdisciplinary course on the principles, development, and organized structure of the university. Special emphasis will be placed on the role of the university in modern society and upon forces affecting the direction of the university and its potential for change. Methods include outside speakers, discussion groups, and laboratory research on UM-St. Louis.

101 Introduction to Classroom Teaching (3)

An introduction to the study of teachers' behaviors and learners' responses in classroom settings. Students will be assigned to school sites for specified observations/analyses and limited participation. Students will have the opportunity to evaluate the teaching profession as an appropriate career choice. The course will consist of approximately one-third lecture/seminar and two-thirds clinical/field experiences.

204 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.

297 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.

301 Introduction to Microcomputers in Education (3)

A course designed to introduce individuals to the microcomputer as an instructional medium. The course will emphasize (1) the history, role, and use of microcomputers in education; (2) learning the elements of programming for the microcomputer; and (3) beginning program construction and debugging operations.

306 Graduate Workshop (1-10)

Prerequisite: Consent of instructor.

308 Graduate Institute (1-10)

Prerequisite: Consent of instructor.

317 Topics in the Teaching of Writing (1-3)

(Same as English 317) Prerequisite: English 210 or equivalent. Special topics in the practice of and pedagogy of writing designed for in-service teachers. Topics may include writing at specific grade levels, writing/reading workshops, writing in urban settings, writing across the curriculum, action research, new technology, classroom and district-level assessment. May be repeated once for credit if topics differ. Counts toward Certificate in writing.

393 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.

408 Graduate Seminar (1-10)

Prerequisite: Consent of instructor. Intensive study of selected issues in education.

414 Common Doctoral Seminar(s) (3)

Prerequisite: Admission to the doctoral program. Two EDUC 414 seminars are required for all doctoral students, for a total of six hours of EDUC 414 seminar credit. One: "Elements of Educational Leadership" is to be taken early in the program. The other: "Research: Implementing Change in Educational Systems" is to be taken following completion of the research courses identified in the student's approved program.

415 Emphasis Area Seminar(s) (3)

Prerequisite: Admission to the doctoral program. All doctoral students are required to take at least two emphasis area seminars consistent with their programs. Students may take additional emphasis area seminars. Obtain a list of emphasis area seminars from the Office of Graduate Studies in Education.

475 Microcomputer Applications in Music Education (3)

(Same as Music 475.) Prerequisites: Graduate standing in music. An examination of the potential of microcomputers in the music education field. Experiences with available hardware and software suitable for applications that include inventory, budget, music library cataloging, digital music synthesis, and computer-assisted instruction at all levels.

476 Microcomputer-Assisted Instruction Curriculum Development in Music (3)

(Same as Music 476.) Prerequisites: Graduate standing in music. Design and development of Computer-Assisted Instruction (CAI) lessons in music. Commercial courseware and various CAI models will serve as the basis for creating original programs that can be used effectively to implement objectives of the music curriculum for a specific school or school district. The design, refinement, and production of a major CAI program for use in an elementary, secondary, or postsecondary setting is required.

School-Wide Courses in Education

477 Advanced Microcomputer Application in Music (3)

(Same as Music 477.) Prerequisite: Graduate standing in music. The study of complex microcomputer applications including music synthesis, MIDI, music-oriented graphics, voice and pitch recognition, administrative applications, and computer-assisted instruction.

480 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.

481 Research Internship II (3)

Prerequisite: Educ 480 and consent of instructor. Supervised experience in the conduct of research studies or scholarly inquiry.

482 Research Internship III (3)

Prerequisite: Educ 481 and consent of instructor. Supervised experience in the conduct of research studies or scholarly inquiry.

491 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.

497 Thesis Research (1-10)

Prerequisite: Consent of instructor.

499 Dissertation Research (1-12)

Prerequisite: Admission to the doctoral program. Credit awarded only upon successful defense of the dissertation.

Counseling

Faculty

Therese S. Cristiani, Associate Professor**
Chairperson

Ed.D., Indiana University

R. Rocco Cottone, Professor**

Ph.D., St. Louis University

Patricia A. Jakubowski, Professor*

Ed.D., University of Illinois

Arthur E. Smith, Professor*

Ph.D., St. Louis University

Mark Pope, Associate Professor**

Ed.D., University of San Francisco

W. Glenn White, Associate Professor*

Ph.D., University of Missouri-Columbia

Vivian J.C. McCollum, Assistant Professor*

Ph.D., St. Louis University

Lori Schnieders, Instructor

* members of Graduate Faculty

**members of Doctoral Faculty

General Information

The Division of Counseling is housed on the fourth floor of Marillac Hall. Information about offerings and related matters may be obtained in the departmental office, 469 Marillac Hall.

The Division of Counseling offers work leading to the M.Ed. and requisite course work for state certification in Elementary and Secondary Guidance and Counseling, and School Psychological Examiner. Non-certification degree work is available in Community Counseling and is designed to prepare students to take the state examination for Licensed Professional Counselor after they have completed the necessary hours of supervised counseling.

Areas of emphasis in the Counseling degree program are Elementary School, Secondary School, or Community Counseling.

Students wishing to receive Missouri certification in Elementary School Counseling or Secondary School Counseling, and School Psychological Examiner must complete all required courses in addition to holding teaching certificates valid in Missouri. Consult your adviser. The Community Counseling area, for which there are no certification requirements, is only appropriate for the practice of counseling in non-school settings.

The Master of Education Degree in Counseling has an exit requirement of an examination. There is a service charge to take the exam. The exam will be given at least twice a year. All degree students should consult with their advisers about this requirement.

Graduate Studies

Admission

In addition to meeting the general admission requirements of the Graduate School, applicants to the Master's of Education with an emphasis in Community or School Counseling must complete the Supplemental 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 410 Personal and Professional Development in Counseling in their first semester. Admissions will be conducted twice a year. The datelines for admission are July 1 for the Fall semester and December 1 for the Winter semester. Applicants will be accepted on a provisional basis pending their completion of application materials, CNS ED 410, and review by the Counseling Faculty Review Board.

1. Since it is the objective of the Counselor Education faculty to identify students with low effectiveness potential as early as possible and to initiate the necessary procedures for dealing with such students, the faculty of the Counselor Education Program reserves the right to review students at any stage of their course work. Any grade less than a B in any core counseling course (CNS ED 410, Personal and Professional Development in Counseling; CNS ED 411, Theories of Counseling; CNS ED 493, Counseling Practicum I or CNS 485, Community Counseling Practicum; CNS ED 494, Guidance Practicum II or CNS ED 486, Community Counseling Field Experience I; and CNS ED 490, Internship or CNS ED 487, Community Counseling Field Experience II) will automatically trigger a review process which may result in the termination of the student's degree program.

Counseling

2. Students admitted to the Master's Degree Program in Counseling on restricted status must attain a 3.0 GPA for the first twelve hours of graduate course work at UM-St. Louis with no grades less than a B. Restricted students must include the following courses in the first twelve hours of course work: CNS ED 410, Personal and Professional Development in Counseling; CNS ED 411, Theories of Counseling, and CNS ED 493, Counseling Practicum I or CNS ED 485, Community Counseling Practicum. A student earning any grade less than a B in any of these three courses, 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 to be admitted.

Master of Education: Emphasis in Elementary 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)

- 410, Personal and Professional Development in Counseling
- 411, Theories of Counseling
- 413, Ethical and Professional Issues in Counseling
- 414, Individual Inventory
- 420, Group Procedures in Counseling
- 431, Foundations of School Guidance
- 443, Career Development
- 490, Internship (1-10)
- 493, Counseling Practicum I
- 495, Foundations for Multicultural Counseling

Psychological Foundations and Human Development (ED PSY)

- 411, Psychology of Education
- 413, Personality Development and Adjustment
- 417, Psychology of the Elementary School Child

Educational Research and Evaluation Methods (ED REM)

- 421, Educational and Psychological Measurement
- 422, Individual Assessment of Cognitive Abilities
- 431, Educational Research Methods I

Master of Education: Emphasis in Community Counseling

The Community Counseling emphasis allows flexibility for developing programs appropriate to particular non school 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:

- 410 Personal and Professional Development in Counseling
- 411 Theories of Counseling
- 413 Ethical and Professional Issues in Individual and Relationship Counseling

- 414 Individual Inventory
- 420 Group Procedures in Counseling
- 443 Career Development
- 485 Community Counseling Practicum
- 486 Community Counseling Field Experience I
- 487 Community Counseling Field Experience II
- 495 Foundations of Multicultural Counseling

Psychological Foundations and Human Development (ED PSY)

The following course is required:

- 413, Personality Development and Adjustment

Educational Research and Evaluation Methods (ED REM)

The following courses are required:

- 421, Educational and Psychological Measurement
- 431, Educational Research Methods I

Area of Specialization (9 hours)

Course work in the area of specialization is to be selected in consultation with the adviser.

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)

- 410, Personal and Professional Development in Counseling
- 411, Theories of Counseling
- 413, Ethical and Professional Issues in Counseling
- 414, Individual Inventory
- 420, Group Procedures in Counseling
- 431, Foundations of School Guidance
- 443, Career Development or
- 442, Career Information
- 490, Internship (1-10)
- 493, Counseling Practicum I
- 495, Foundations for Multicultural Counseling

Psychological Foundations and Human Development (ED PSY)

- 411, Psychology of Education
- 413, Personality Development and Adjustment
- 418, The Psychology of Adolescence

Educational Research and Evaluation Methods (ED REM)

- 421, Educational and Psychological Measurement
- 422, Individual Assessment of Cognitive Abilities
- 431, Educational Research Methods I

Counseling

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 in order 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. With little additional work the school counselor may qualify for certification as a school psychological examiner.

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 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, business and industry positions, especially in training and personnel areas. Others have moved into roles calling for research and evaluation skills.

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.

Counseling

Course Descriptions

Prerequisites may be waived by consent of the department.

For information about certification and licensure, an adviser should be consulted.

Counselor Education (CNS ED)

310 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.

314 Human Relations Skills (3)

Prerequisite: 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 skill-building exercises will be used to develop various human relations skills.

317 Advisory Programs in the Middle Level School (3)

Prerequisite: ED PSY 312 or graduate status. The role of the middle level educator in the adviser-advisee program is examined. Implications of varying developmental levels on early adolescent decision making is explored. Skills for effective student/teacher communication are highlighted.

318 Counseling Gifted Students (3)

Prerequisites: SPC ED 313, ED PSY 312, or equivalent. This course emphasizes the social and emotional development of gifted and talented individuals. Subject areas will include current research, factors affecting the development of the gifted, and resources and strategies utilized in counseling these students and their parents.

329 Counseling the Chemical Dependent (3)

This course is an introduction to the problems resulting from the abuse of alcohol and other chemicals, with an emphasis on the impact of chemical dependence on the individual, the family, the employer, and the community. The special problems resulting from chemical dependence as it affects various populations, e.g., women, individuals with disabilities, and the elderly, will be analyzed and linked to appropriate counseling strategies.

330 Principles and Procedures for Student Personnel Work (3)

Student personnel work in educational institutions, objectives of student personnel work, and certain pertinent techniques.

331 Counseling Individuals with Special Needs (3)

Prerequisite: SPC ED 313 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.

332 Youth and Chemical Dependence (3)

Prerequisite: Junior standing. This course provides information about adolescent and preadolescent chemical dependency and its relationship to numerous other developmental and societal factors that place the adolescent "at risk" for the development of substance abuse problems. Skills in the identification, intervention, and referral of chemically-dependent adolescents are emphasized, along with preventive measures and family and school issues.

342 Occupational and Educational Information (3)

Nature and use of occupational and educational information. Characteristics, requirements of occupations, and training opportunities.

404 Seminar (3-10)

410 Personal and Professional Development in Counseling (3)

Prerequisite: Graduate standing. 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.

411 Theories of Counseling (3)

Prerequisite: CNS ED 410. This course will explore the philosophical foundations of counseling theory. The major constructs of contemporary counseling approaches will be discussed, and the practical applications of these theories will be analyzed.

412 Theories and Techniques of Counseling Children and Adolescents (3)

Prerequisite: CNS ED 411 (ED PSY 417 or ED PSY 418 or permission of the instructor). This course focuses on counseling theories and their applicability to the developmental special concerns of children and adolescents including 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.

413 Ethical and Professional Issues in Individual and Relationship Counseling (3)

Prerequisite: CNS ED 410. 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.

414 Individual Inventory (3)

Prerequisites: ED REM 421. 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.

Counseling

420 Group Procedures in Counseling (3)

Prerequisites: CNS ED 411 and CNS ED 493. 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.

423 Introduction to Systems Theory for Marriage and Family Counseling (3)

Prerequisite: CNS ED 411. This course is an introduction to general systems theory and application to marriage and family counseling. Students learn the theoretical basis for intervention and counseling strategies in the context of an ecology of human development. Developmental issues at individual, sibling, marital, family, and community levels and the ways in which various social systems interact with and mutually influence one another are presented.

424 Marriage Counseling and Enrichment (3)

Prerequisite: CNS ED 423 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.

425 Family Counseling (3)

Prerequisites: CNS ED 423 and CNS ED 493, 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.

426 Advanced Theories of Counseling and Family Therapy (3)

Prerequisites: CNS ED 411 and CNS ED 423, CNS ED 493 or consent of instructor. Contemporary and emergent theories in counseling and family therapy are presented and analyzed. Research issues are addressed.

428 Counseling the Co-Dependent (3)

Prerequisites: CNS ED 411 and CNS ED 329. This course offers an in-depth analysis of the nature and counseling of co-dependency. Materials will include an examination of etiological factors, as well as specific counseling concepts and strategies.

429 Advanced Strategies in Chemical Dependence Counseling (3)

Prerequisite: CNS ED 329 or consent of instructor. This course introduces the student to advanced counseling skills and approaches that can be utilized to match substance abuse interventions to individual client need. Versatility and flexibility are emphasized as well as the use of research supported relapse prevention strategies;

430 Counseling the Dual Diagnosed Substance Abuser (3)

Prerequisites: CNS ED 411 and CNS ED 329. This course introduces the student to the special needs, concerns, and problems encountered when counseling clients who are both mentally ill and chemically dependent. Subject areas include an overview of counseling methodologies, diagnosis, and psycho-pharmacology.

431 Foundations of School Guidance (3)

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.

436 Student Personnel Work in Higher Education (3)

A survey course in student personnel administration with an emphasis on understanding the college student and on learning ways to meet both his/her academic and nonacademic needs.

442 Career Information (3)

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. Various theories of career development and career choice will be examined.

443 Career Development (3)

Emphasis is on current theories of vocational/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 theory in planning, development, and delivery of a career development program is explored. Various printed resources and computer-assisted career information delivery systems will be discussed.

451 Counseling Parents of Exceptional Children (3)

The development of counseling skills to enable human service professionals to interact productively with families who have handicapped children.

Counseling

455 Counselor Education and Supervision (3)

Prerequisite: Master's degree in Counseling. 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.

460 Rehabilitation Counseling (3)

Prerequisite: CNS ED 410; 411; 493; or 485. 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.

461 Theory and Practice of Clinical Hypnosis in Counseling (3)

Prerequisite: CNS ED 493 or 485 or Consent of instructor. Clinical hypnosis is conceptualized and approached as a system of skilled communication. Historical perspectives, major models (Traditional, Standardized, and Utilization [Ericksonian]), myths, and misconceptions will be explored. Students will develop skills in direct and indirect trance induction procedures, and case conceptualization with individuals and multiple participants. Legal and ethical considerations will be presented.

462 Counseling Women Toward Empowerment (3)

Prerequisite: CNS ED 410, 411 493 or 485. 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.

470 Advanced Assessment in Counseling (3)

Prerequisite: CNS ED 414 and doctoral standing or consent of the instructor. This course develops advanced skills in the assessment process which includes the administration, scoring, and interpretation of psychological tests and environmental inventories, clinical interviewing, observation, and the gathering of historical and collaborative information; and the integration of this information into patterns to predict human functioning.

471 Time-Limited Group Counseling (3)

Prerequisite: CNS ED 420 and doctoral standing or consent of the instructor. The theory, techniques, and research in psychodynamic, interpersonal, cognitive-behavioral and existential-humanistic counseling groups are addressed, as well as levels of group focus; management of resistance and transference; research and methods of working through issues and assisting difficult, multi-problem group members.

472 Practicum in Group Counseling (3)

Prerequisite: CNS ED 471 and doctoral standing or consent of instructor. Students will lead or co-lead a supervised counseling group in the community.

480 Advanced Clinical Issues in Counseling (3)

Prerequisite: Doctoral standing or consent of instructor. This course will address advanced clinical issues with seriously disturbed clients.

485 Community Counseling Practicum (3)

Prerequisite: CNS ED 410 and 411 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.

486 Community Counseling Field Experience I (3)

Prerequisite: CNS ED 485 and consent of instructor. A 300-hour closely supervised field experience under the direction of a graduate faculty member. An appropriate level of competence and evidence of growth in the professional counselor role must be demonstrated by the student. The field placement will include on-campus group supervision, off campus site supervision, and on-site counseling activity.

487 Community Counseling Field Experience II (3)

Prerequisite: CNS ED 486 and consent of instructor. A 300-hour advanced closely supervised field experience under the direction of a graduate faculty member. The course will build upon and extend the Community Counseling Field Experience I. It is expected that the student will demonstrate counseling competencies and skills and ethical practice. The field experience will include on-campus-group supervision, off-campus site supervision, and on-site counseling activity.

490 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.

493 Counseling Practicum I (3)

Prerequisite: CE 410 and CE 411 and consent of the instructor. The purpose of this course is to provide supervised practice in counseling, and the opportunity for students to learn to facilitate personal change and problem solutions using some systematic framework, theoretical orientation, or research base.

494 Guidance Practicum II (3)

Prerequisite: Grade of "B" or better in CNS ED 493 and/or consent of instructor. Supervised practice in counseling.

495 Foundations for Multicultural Counseling (3)

Prerequisite: CNS ED 493. 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.

Counseling

496 Seminar in Counseling Research (3)

Prerequisite: ED REM 431, 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.

497 Problems (1-10)

498 Advanced Multicultural Counseling (3)

Prerequisite: CNS ED 495 and doctoral standing or consent of instructor. This advanced course addresses theories and research in multicultural counseling.

Educational Leadership and Policy Studies

Faculty

James E. Walter, Associate Professor**, Chairperson
Ph.D., University of Wisconsin-Madison

Joy E. Whitener, Dean Emeritus; Professor Emeritus*
Ed.D., Washington University

Charles J. Fazzaro, Associate Professor**
Ed.D., West Virginia University

Lowe S. (Sandy) MacLean, Associate Professor*
Ed.D., Indiana University-Bloomington

Everette E. Nance, Associate Professor*; Dean,
Evening College; Director, Midwest Community
Education Development Center

Ed.D., Western Michigan University

Fred E. Bradley, Assistant Professor*
Ph.D., Southern Illinois University-Carbondale

Timothy O'Rourke, Professor*
Ph.D., Duke University

Charles Schmitz, Professor**, Dean
Ph.D., University of Missouri-Columbia

Wendell L. Smith, Assistant Professor*; Associate Vice
Chancellor for Academic Affairs; Dean of Continuing
Education-Extension
Ph.D., Ohio State University

* members of Graduate Faculty

** members of Doctoral Faculty

General Information

The faculty of the Division of Educational Leadership and Policy Studies are housed on the second floor of Marillac Hall. Answers to questions about the department and its offerings may be obtained from the department office, 269 Marillac Hall.

At the graduate level the division offers master's degree work and advanced certification studies in elementary and secondary school administration, special education administration, and the school superintendency.

Community education is an additional emphasis offered in the educational administration program.

Graduate Studies

The options in educational administration include elementary and secondary school administration and certification for school district administration. They are part of a continuous two-phase, NCATE- and DESE-approved program. In the first phase, students earn the M.Ed. The second phase leads to the completion of a two-year course of study in educational administration and is designated the Advanced Certification Studies (ACS) program. Both phases are correlated with current Missouri requirements for certification as either a principal or director of elementary or secondary education or school superintendent in Missouri schools.

The options in educational administration are more than simply lists of courses. Each is an organized curricular offering.

Responsibility for developing appropriate individual programs rests primarily with students. They are, therefore, encouraged to take full advantage of the program planning assistance provided by advisers, especially during the early phase of the program(s).

Master of Education and Advanced Certification Studies (ACS): Educational Administration

The recommended curriculum for the M.Ed. in Educational Administration is 33 credit hours. The curriculum for Advanced Certification Studies is 60 credit hours.

Requirements

1) Educational Core (Required for M.Ed. and ACS)
ED FND 421, Philosophy of Education
ED FND 435, History of Western Education, or
ED FND 330, History of American Education
ED ADM 411, Organizational Theory & Analysis in Education
ED ADM 416, Policymaking in Education

2) Research Core (Required for both M.Ed. and ACS)
*ED ADM 435, Education Administration Policy Research
ED REM 330, Educational Statistics

Educational Leadership and Policy Studies

3) Educational Administration Core (Required for both M.Ed. and ACS)

ED ADM 414, Foundations of Educational Administration
ED ADM 460, School Law
ED ADM 471, School Staff Development & Supervision

4) School Administration Specialization
 (Required for both M.Ed. and ACS)**

For Elementary School Administration

ED ADM 441, Elementary School Administration
ELE ED 411, Current Research in the Elementary School Curriculum, or
ELE ED 411, Curriculum Issues in the Elementary Schools.

For Secondary School Administration

ED ADM 451, Secondary School Administration
SEC ED 415, Secondary School Curriculum, or
SEC ED 416, Curriculum Construction for Secondary Schools

5) Internship

(Required for state certification, but not for M.Ed.)
ED ADM 490, Internship

6) Technical Aspects of Educational Administration
 (Electives, 12 hours for ACS. This list is suggestive; other approved courses may be used to meet the 12-hour requirement.)

ED ADM 425, Organizational Change in Education
ED ADM 429, The Department Head
ED ADM 430, School District Administration
ED ADM 465, State and Federal Financing of Public Education
ED ADM 466, Principles of Public School Finance in Missouri
ED ADM 475, School Buildings and Sites
ED ADM 480, Administration of Adult and Community Education
ED ADM 481, Programming in Community Education and Adult Education
ED ADM 485, Financing of Community Education
ELE ED 410, Current Research in the Elementary School Curriculum
ELE ED 411, Curricular Issues in the Elementary School
ELE ED 422, Curriculum Construction in the Elementary School
ELE ED 423, Curricular Implementation in the Elementary School
SEC ED 315, The Middle Level School
ELE ED 316, Middle Level School Curriculum
SEC ED 416, Curriculum Construction for Secondary Schools
SEC ED 420, The Improvement of Secondary School Teaching
SEC ED 422, Individualizing Instruction in Secondary Schools
ED TEC 433, Educational Technology Systems Management
ED REM 420, Classroom Measurement and Evaluation

7) Human Aspects of Educational Administration
 (Electives, 12 hours for ACS. This list is suggestive; other approved courses may be used to meet 12-hour requirement.)

ED ADM 422, Leadership in Educational Administration
ED ADM 432, Problems in School Public Relations
ED ADM 456, Extracurricular Activities
ED ADM 470, School Personnel Administration
ED ADM 473, Collective Negotiations in Educational Organizations
ED FND 422, Analysis of Educational Issues
ELE ED 425, Elementary School Supervision
SEC ED 425, Secondary School Supervision
ED PSY 418, The Psychology of Adolescence
SPC ED 313, The Psychology and Education of the Exceptional Individual
CNS ED 431, Foundations of School Guidance
CNS ED 317, The Advisory Program in Middle Schools

* **Exit Requirement** for M.Ed. and ACS. This course must be taken within the last nine (9) semester hours of either M.Ed. or ACS.

**Students choose either the sequence for elementary school administration or the sequence for secondary school administration.

Master of Education: Educational Administration with Emphasis in Community Education
 This is a 32-credit hour program for those students interested in community education.

Degree Requirements

1) Common Educational Foundations (9 hours required)

ED FND 421, Philosophy of Education
 ***SPC ED 313**, The Psychology and Education of Exceptional Individuals
ED REM 420, Classroom Measurement and Evaluation or
ED REM 330, Educational Statistics

*Students who have already had an undergraduate course related to Psychology of Exceptional Children need not take SPC ED 313.

2) Administrative Foundations (12 hours required)
ED ADM 411, Organizational Theory and Analyses in Education

For elementary administration community education

ED ADM 441, Elementary School Administration
ELE ED 425, Elementary School Supervision
ELE ED 410, Current Research in the Elementary School Curriculum

For secondary administration community education

ED ADM 451, Secondary School Administration
SEC ED 425, Secondary School Supervision
SEC ED 415, The Secondary School Curriculum, or
SEC ED 416, Curriculum Construction for Secondary Schools

Educational Leadership and Policy Studies**3) Community Education Emphasis Area (9 hours required)**

ED ADM 480, Administration of Community and Adult Education

ED ADM 481, Programming in Community and Adult Education

ED ADM 490, Internship

4) Recommended Electives

ED ADM 485, Financing of Community Education

ED ADM 432, Problems in School Public Relations

ED ADM 460, School Law

ED ADM 485, State and Federal Financing of Public Education

ED ADM 414, Foundations of School Administration

5) Minor Area of Concentration

(6 hours required for ACS)

Students are expected to demonstrate competence in at least one other field. Other fields may include sociology, political science, business administration (industrial-labor relations or other area), economics, educational research, and other approved fields. Competence may be shown by successful completion of at least six hours in one of these fields.

6) Internship or Field Study (Required ACS only)

ED ADM 490, Internship

Educational Leadership and Policy Studies

Course Descriptions

Courses in this section are: Educational Administration (ED ADM) courses.

Prerequisites may be waived by consent of the department.

404 Seminar (1-10)

411 Organizational Theory and Analysis in Education (3)

Prerequisite: ED ADM 414 or equivalent. The purpose of this course is to examine organizational theory and its implications for the field of education. A comprehensive survey of the work of scholars in the field of organizational theory will provide students with appropriate conceptual tools necessary to analyze problems in educational organizations.

414 Foundations of School Administration (3)

Emphasis on processes common to all phases of educational administration. Conceptual framework for administration of education, decision making, and organizational theory.

416 Policymaking in Education (3)

Prerequisites: ED FND 421 and ED ADM 411 or equivalent. The purpose of this course is to provide the student with a comprehensive and systematic approach to understanding the nature and function of policy making in education.

422 Leadership in Educational Administration (3)

This course is designed to acquaint the administrator with the factors of groups and interpersonal relationships directly affecting job performance. The consequences of various types of group relationships upon the institution will be studied in detail. The administrator will study various rationales for and methods of improving interpersonal relationships within the institution.

425 Organizational Change in Education (3)

Prerequisite: ED ADM 411 or equivalent. 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.

430 School District Administration (3)

Prerequisite: ED ADM 414 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.

432 Problems in School Public Relations (3)

Principles of good school public relations, unique public functions of various school and community groups. Techniques for conducting school public relations.

435 Education Administration Policy Research (3)

Prerequisites: ED ADM 411, ED ADM 414, and ED ADM 416. A study of issues and trends in basic, applied, and action research in educational policy making.

441 Elementary School Administration (3)

Prerequisite: ED ADM 411 or equivalent. 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.

451 Secondary School Administration (3)

Prerequisite: ED ADM 411 or equivalent. 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.

456 Extracurricular Activities (3)

Activities related to the extracurricular program of secondary schools will be studied in depth. Analyses of appropriate activities will include the nature and purposes of these activities.

460 School Law (3)

Principles of law as derived from court decisions; statutory and constitutional provisions affecting education. Legal status (power and responsibilities) of school board members, superintendents, principals, teachers, and pupils.

465 State and Federal Financing of Public Education (3)

Economic implications of public education. Determination of policy and practice in financing of public schools by local, state, and federal agencies. Developing principles of adequate tax programs and designing systems of state support of public education.

466 Principles of Public School Finance in Missouri (3)

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.

Educational Leadership and Policy Studies**470 School Personnel Administration (3)**

Prerequisite: ED ADM 411 or equivalent. This course is a comprehensive, systematic study of problems in planning, recruitment, selection, induction, and retention relative to school personnel.

471 School Staff Development and Supervision (3)

Prerequisite: ED ADM 411 or equivalent. This course provides a systematic examination of the conceptual bases and practical applications of the administration of staff development and supervision programs in a broad spectrum of educational settings. The course explores organizations of several relevant theories and conceptual models including Social Systems Theory and Organizational Development (OD). Students will be introduced to a variety of administrative techniques used to assess needs plan, deliver, and evaluate staff development and supervision programs in education.

473 Collective Negotiations in Educational Organizations (3)

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.

475 School Buildings and Sites (3)

Course is designed to acquaint the administrator with methods and procedures for projecting the future building and facility needs of a public school district and for supervising actual planning of facility construction. Maximizing utilization of current facilities will be studied in detail.

480 Administration of Adult and Community Education (3)

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.

481 Programming in Community and Adult Education (3)

Prerequisite: ED ADM 480. 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.

485 Financing of Community Education (3)

The student will develop the necessary skills needed to construct an operational budget for the administration of community education programs. Emphasis will be placed on developing a support base from federal, state, and local funding resources. The student will be exposed to proposal writing and funding procedures.

490 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.

497 Problems (1-10)

Educational Psychology, Research and Evaluation

Faculty

Margaret W. Cohen, Associate Professor**,
Chairperson

Ph.D., Washington University

William L. Franzen, Professor *, Dean Emeritus

Ph.D., University of Wisconsin

Thomas E. Jordan, Curator's Professor* of Child
Development, Professor Emeritus

Ed.D., Indiana University

W. Ray Rhine, Professor Emeritus*

Ph.D.

Steven D. Spaner, Associate Professor**

Ph.D., Southern Illinois University-Carbondale

Constance J. Fournier, Assistant Professor*

Ph.D., University of Texas, Austin

Matthew W. Keefer, Assistant Professor**

Ph.D., University of Pittsburgh

S. Simon Kim, Assistant Professor**

Ph.D., University of Southern California

Virginia L. Navarro, Visiting Assistant Professor*

Ph.D., Washington University

* members of Graduate Faculty

** members of Doctoral Faculty

General Information

Faculty in the Division of Educational Psychology, Research and Evaluation Methods are housed on the fourth floor of Marillac Hall. Information about course offerings may be obtained in the division office, 469 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 Ed.D program. The Missouri certificate in school psychology is coordinated through this division.

Educational Psychology, Research and Evaluation

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)

211 Growth and Development (3)

Comprehensive study of chronological age norms and the process of growth and development throughout the entire life span. There will be special emphasis on childhood, adolescence, and senescence.

312 The Psychology of Teaching and Learning (3)

Prerequisites: ED FND 111 and ED PSY 211 or Psych 270, or Psych 271, and admission to the School of Education. Application of the principles of psychology to an understanding of the dynamics of teaching behavior and learning behavior. Involves both theoretical and practical approaches to analysis of the learning environment of the school. Required of all who are preparing to teach.

325 Education and the Psychology of Human Sexuality (3)

(Same as Nursing 325). The course is designed to provide educators and other human services personnel with knowledge and understanding of various personal and social dimensions of human sexuality.

404 Seminar (1-10)

411 Psychology of Education (3)

Current psychological theories and research that guide inquiry and decision making in education. Topics surveyed include behavior, development, learning, instruction.

412 Psychology of Learning Processes (3)

Prerequisite: ED PSY 411. Advanced study of learning and instructional theories. The historical and theoretical bases of instructional practice are examined.

413 Personality Development and Adjustment (3)

A course in personality development, personality structure, and the dynamics of adjustment. Course materials are oriented to the applied problems of counselors, teachers, administrators, and others in the helping professions.

416 Psychology of Early Childhood Development (3)

Prerequisite: ED PSY 411 or consent of instructor. A survey of the theories, concepts and research which inform the field of early childhood development and help caregivers and teachers understand the cognitive, social and emotional changes that take place from birth through the primary years of schooling.

417 Psychology of the Elementary School Child (3)

Prerequisite: ED PSY 411 or consent of instructor. Current research on the psychological changes which occur during the school age years (ages 5-12) of childhood. Includes attention to how development proceeds and to the processes that may alter its progress.

418 The Psychology of Adolescence (3)

Prerequisite: ED PSY 411 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.

420 Behavioral Analysis of Human Learning (3)

Prerequisite: Graduate standing. A course in the principles of human learning and the technology of behavior modification, from the perspective of the teaching and counseling professions. Emphasis is placed on its application to school learning and behavior problems and to social behavioral patterns in a variety of appropriate counseling settings.

490 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.

497 Problems (1-10)

Educational Research and Evaluation Methods (ED REM)

310 Interpretation of Educational Tests and Measurements (3)

A study of the principles of psychometrics with emphasis upon the classroom interpretation of group tests of cognitive abilities and achievement. Required of all majors in special education.

320 Classroom Testing and Measurement (3)

Basic measurement principles for the classroom teacher: test planning; construction and use of selection, supply, and performance type test items; item analysis for test improvement; methods of summarizing test scores; derived scores for interpretation of performance; development and use of norms in evaluation.

330 Educational Statistics (3)

Statistical methods for preservice educators and beginning graduate students: frequency distributions, measures of central tendency, variability, sampling, and correlation.

Educational Psychology, Research and Evaluation

404 Seminar (1-10)

Prerequisite: Consent of instructor. Educational research and evaluation methods seminar addressing special issues and topics not normally included in the regular statistics, research methods, evaluation, and measurement courses.

412 Evaluation and Applications of Computers in Education (3)

Prerequisite: ER 431 or consent of instructor. Review of a computer language and evaluation of the various uses and capabilities of computers in the teaching, administration, and counseling areas of education. Familiarization with computing facilities and package programs.

420 Classroom Measurement and Evaluation (3)

An introductory graduate course to classroom testing and evaluation: comparison of criterion and norm referenced theory and technique; classical test theory, reliability, validity and associated descriptive statistics; derived and transformed scores; preparation of instructional objectives for use in developing the classroom test; evaluation of student achievement and instructional effectiveness through testing.

421 Educational and Psychological Measurement (3)

An introductory graduate course in testing and measurement theory in the affective behavior domain: reliability, validity, and associated descriptive statistics; correlation and simple regression; derived and transformed scores; interpretation of test scores based upon theory of psychological tests; measurement of aptitude, vocational interests, and personal-social adjustment.

422 Individual Assessment of Cognitive Abilities (3)

Prerequisite: ED REM 310, or 320, or 420, or 421, or consent of instructor. A course to develop administrative and interpretive skills in the use of individually administered tests such as the Wechsler scales, the Stanford-Binet, and similar instruments.

429 Advanced Test Theory in Education (3)

Prerequisite: ED REM 420, or ED REM 421, or consent of instructor. 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 theory and technique in the development and analysis of test structure and validity; introduction to item response theory and techniques for the improvement of educational testing and research.

431 Educational Research Methods I (3)

Prerequisites: At least one of the following: ED REM 310, 320, 330, 420, or 421, or consent of instructor. An introductory course in educational research methodology. Descriptive statistical concepts learned in the prerequisite course are extended to: inferential statistics and hypothesis testing; research design issues such as internal/external threats to validity; basic designs to minimize these threats; special issues associated with positivistic and nonpositivistic research paradigms; and the structure and content of the research proposal.

432 Educational Research Methods II (3)

Prerequisite: ED REM 431 or consent of instructor. A survey of advanced educational research methods: hypothesis testing using classical factorial analysis of variance; analysis of covariance; the general linear model; multiple and partial correlation; multiple linear regression; and advanced research designs for educational problems. Quantitative statistical methods associated with qualitative research situations are introduced.

433 Educational Research Methods III (3)

Prerequisite: ED REM 431 or consent of instructor. An advanced educational research methods course focusing on issues and techniques of multivariate analysis: multivariate analysis of variance (MANOVA); canonical correlation, discriminant function, factor, and cluster analysis; advanced topics in multiple linear regression analysis; and research designs and measurement techniques typically associated with these statistical methods.

435 Multiple Linear Regression in Education (3)

Prerequisite: ED REM 432 or ED REM 433. An advanced educational research methods course using MLR models and techniques to evaluate educational problems. Focus is on the theory, special issues, and techniques in the application of MLR to qualitative and quantitative educational research studies.

436 Nonparametric Statistics in Education (3)

Prerequisite: ED REM 431 or consent of instructor. An advanced educational research methods course in alternative analysis procedures to classical parametric statistics. Nonparametric methods are surveyed and their data requirements compared to their parametric counterparts. Educational research problems appropriate to or adaptable to these methods are studied.

437 Field Based Research Methods (3)

Prerequisite: ED REM 431 or consent of instructor. An advanced educational research methods course in the major paradigms of positivism and postpositivism. The principal traditions of qualitative research methods are reviewed. Alternative sampling strategies, observational measurement, individual and group interview techniques, and questionnaire construction are studied. Qualitative data analysis is addressed from two perspectives: nonquantitative and statistical. Quality control to establish the trustworthiness and authenticity of field studies is reviewed.

Educational Psychology, Research and Evaluation

490 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.

497 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.

Teaching and Learning**Faculty**

Helene J. Sherman, Chairperson; Associate Professor**
Ed.D., University of Missouri-St. Louis

John A. Henschke, Associate Chairperson, Associate Professor**; Continuing Education Specialist, University Extension-East Central Region
Ed.D., Boston University

Richard W. Burnett, Professor Emeritus*
Ed.D., Indiana University

Charles Granger, Professor**
Ph.D., University of Iowa

Kathleen M. Haywood, Professor**, Associate Dean for Academic Affairs
Ph.D., University of Illinois-Urbana-Champaign

William C. Kyle, Professor**
Ph.D., University of Iowa

Louis Lankford, Professor*
Ph.D., Florida State University

Wallace Z. Ramsey, Professor Emeritus*
Ed.D., University of Missouri-Columbia

Arthur H. Shaffer, Professor**
Ph.D., University of California-Los Angeles

Thomas M. Shea, Visiting Professor**
Ed.D., Boston University

James Shymansky, Professor
Ph.D., Florida State University

Patricia Simmons, Professor
Ph.D., University of Iowa

Blanche M. Touhill, Professor*; Chancellor
Ph.D., St. Louis University

Paul D. Travers, Director, Teacher Education, Professor**
Ed.D., George Peabody College

Doris A. Trojcek, Professor Emeritus*
Ed.D., Indiana University

Harold E. Turner, Professor Emeritus*
Ed.D., George Peabody College

Huber M. Walsh, Professor Emeritus*
Ed.D., University of California-Los Angeles

Fred Willman, Professor*
Ph.D., University of North Dakota

Bruce A. Clark, Associate Professor*
Ph.D., University of Illinois

Richard J. Friedlander, Associate Professor**
Ph.D., University of California-Los Angeles

Donald R. Greer, Associate Professor*
Ph.D., University of Missouri-Columbia

Harold Harris, Associate Professor*
Ph.D., Michigan State University

Thomas J. Loughrey, Associate Professor*
Ph.D., University of Iowa

Carole A. Murphy, Associate Professor**
Ed.D., Texas A & M University

Van Reidhead, Associate Professor*
Ph.D., Indiana University

Lloyd I. Richardson, Jr., Associate Professor**
Ph.D., George Peabody College

Thomas R. Schnell, Associate Dean for Administrative Affairs, Associate Professor*
Ph.D., Southern Illinois University-Carbondale

Charles G. Smith, Associate Professor; Athletic Director Emeritus
M.S., Washington University

Gwendolyn Turner, Associate Professor**
Ed.D., University of Arkansas

Cathy Vatterott, Associate Professor**
Ph.D., St. Louis University

Gayle Wilkinson, Associate Professor**
Ed.D., University of Illinois

George J. Yard, Associate Professor**
Ph.D., St. Louis University

Edith M. Young, Associate Professor*
Ed.D., University of Missouri-Columbia

Jane Zeni, Associate Professor**
Ed.D., University of Missouri-St. Louis

Linda Quinn Allen, Assistant Professor*
Ph.D., Purdue University

Scott Danforth, Assistant Professor**
Ph.D., University of South Florida-Tampa

Nancy Getchell, Assistant Professor*
Ph.D., University of Wisconsin-Madison

Allison K. Hoewisch, Assistant Professor*
Ph.D., University of Southern Mississippi

Delores M. John, Associate Dean of Continuing Education; Assistant Professor
Ph.D., University of Missouri-Columbia

Karen Keller, Visiting Assistant Professor*
Ed.D., University of Texas

Raymond Mack, Visiting Assistant Professor
Ed.D., Indiana State University

Jim Mansfield, Assistant Professor**
Ph.D., University of Missouri-Columbia

Beth Pike, Visiting Assistant Professor
Ed.D., University of Missouri-St. Louis

Richard Pontius, Assistant Professor*
Ph.D., Ohio State University

Gary Rice, Assistant Professor
Ph.D., Syracuse University

Cyrus Rodgers, Assistant Professor*
Ed.D., University of Missouri-St. Louis

Tamara Timko, Assistant Professor*
Ph.D., Ohio State University

Melva Ware, Assistant Professor*
Ph.D., St. Louis University

Kathi Boyer-Edwards, Lecturer
M.Ed., Washington University

Linda Cason, Director, Gateway Writing Project; Lecturer
M.Ed. Webster University

Linda Gagen, Lecturer
M.Ed., Kent State University

Joan Gilley, Lecturer
M.Ed., University of Missouri-St. Louis

Mimi J. LaMarca, Lecturer; Registrar
M.Ed., University of Missouri-St. Louis

Lynn Navin, Director, University Child Development Center; Lecturer
M.Ed., Michigan State University

* members of Graduate Faculty

** members of Doctoral Faculty

Teaching and Learning

General Information

The faculty of the Division of Teaching and Learning have their offices on the 2nd, 3rd, and 4th floors in Marillac Hall. 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 at 234 Mark Twain Building.

The Division coordinates programs leading to a B.S. in Education degree in:

Early Childhood Education
Elementary Education
Physical Education
Secondary Education
Special 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.

The **Early Childhood** undergraduate program is designed for students wishing to teach and direct programs for children from pre-kindergarten 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 coursework to receive certification.

The **Elementary Education** program prepares students to teach in grades one through six. Students also tailor a program leading to a middle school/junior high teaching certificate. A special feature of these programs is the many opportunities to work with children in schools as part of the professional course work.

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 or 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 PK-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 7-12) and middle schools: biology, chemistry, English, French, German, history, mathematics, music, physics, psychology, social studies, speech and Spanish. A special feature of these programs is the close interdisciplinary cooperation between the professional School and other University departments. The business education major is offered within the School of Education.

Students may also choose to pursue the bachelor's degree in the College of Arts and Sciences plus certification, or the B.S. in Education degree which includes Missouri certification. Business education students have only the latter option.

At the graduate level, the Division provides a program leading to a M.Ed in Secondary Education with emphasis in: Adult Education, certification studies with Adult Basic Education, Secondary Education with emphasis in Reading, and Secondary Education and certification. It offers graduate degree work and advanced certification studies in elementary and secondary school administration, special education administration, and the school superintendency.

The **Special Education** program prepares students to teach educable mentally retarded, early childhood special education, emotionally disturbed, or learning disabled children. Students also receive certification as regular elementary school teachers upon completion of the curriculum. New Missouri certification standards require a student teaching experience in each area of special education. It is possible for students to become certified as secondary special education teachers with appropriate advising and additional course work.

At the graduate level, requisite course work for Missouri certification in Special Education is available, as is the M.Ed. Degree.

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 Office of Undergraduate Studies in Education.

Teaching and Learning

Early Childhood Education

Undergraduate Studies

Bachelor of Science in Education: Early Childhood

This program is designed for students wishing to teach and direct programs for children from pre-kindergarten through grade three.

General Education Requirements:

English and Communication (9 hours)

English 10, Composition

English 210, Advanced Expository Writing

Communication: 3 hours

Mathematics (6 hours)

Math 50, Structure of Mathematical Systems I

Science

Biological Science: includes lab (5 hours)

Biology 130 (3 hours)

Physical Science: includes lab (4 hours)

Humanities (8 hours)

Three courses from two of the following fields: art, music, philosophy, and literature.

Social Science (21 hours)

Psych 3, General Psychology

Psych 270, Child Psychology

PolSci 11, Introduction to American Politics or equivalent

and one of the following history courses

Hist 3, American Civilization

Hist 4, American Civilization

and the following courses:

PolSci 11, Introduction to American Politics

PolSci 85, Global Ecology

Soc 10, Introduction to Sociology, or

any anthropology course.

Degree Requirements

Students are required to take the general education requirements as indicated for early Childhood Education above.

Program Requirements

ED FND 111, The School in Contemporary Society

ED PSY 312, Psychology of Teaching and Learning

SPC ED 313, The Psychology and Education of Exceptional Individuals

and these Elementary Education (ELE ED) courses:

330, Children's Literature and Reading

336, Teaching Language Arts and Reading, N-9

385, Teaching Reading in the Elementary School

plus these Early Childhood Education (ECH ED) courses:

290, Student Teaching in Early Childhood Education I

291, Student Teaching in Early Childhood Education II

Note ECH ED 290 and ECH ED 291 must be taken during the same semester.

312, Introduction to Early Childhood Education

317, Assessing Individual Needs for Early Childhood

331, Language Acquisition and Development in Early Childhood

332, Early Literacy

346, The Acquisition of Mathematical Concepts

313, Curriculum and Practice: Infant/Toddler

314, Curriculum and Practice: Preschool

315, Curriculum and Practice: Primary

303, Curriculum and Practice Laboratory: Infant/Toddler

304, Curriculum and Practice Laboratory: Preschool

305, Curriculum and Practice Laboratory: Primary

Related Area Requirements

PHY ED 130, Elements of Health Education

PHY ED 282, Physical Growth and Motor Development

Attention Education Majors: Professional Education courses must be completed with a grade point average of 2.50 and no grade lower than a C (2.0). A C- grade is not acceptable.

Post-degree certification students may take ED FND 330, History of American Education, or ED FND 421, Philosophy of Education, in lieu of ED FND 111.

Changes in teacher certification requirements in this area are upcoming. To obtain the latest information on requirement changes or to find out whether the new requirements will apply to you, contact the Office of Undergraduate Teacher Education, 155 Marillac Hall.

Total: 120 hours

Teaching and Learning

Graduate Studies

Master of Education: Elementary Education, Concentration in Early Childhood Education

This program is designed to develop a master teacher through a common core of essential knowledge and experiences drawn from current research and practice in early childhood education.

Core Competencies (12 hours):

ELE ED 410, Current Research in Elementary School Curriculum (required as the entry course in the program).
ELE ED 411, Curricular Issues in the Elementary School

Students may select **two** of the following courses:

ECH ED 410, Foundations of Preschool Education (strongly suggested)
ED PSY 412, Psychology of Learning Processes
ED PSY 416, Psychology of Early Childhood Development
ECH ED 490, Internship
ECH ED 497, Problems

Content Competencies (minimum of 12 hours of coursework from the following areas):

Early Childhood Certification Courses
Early Childhood Electives
Other courses approved by advisor

Curricular Application Competencies (9 hours):

A measurement course is required before admission to the exit course ELE ED 423 and one of the following is suggested:

ED REM 420, Classroom Measurement and Evaluation
or
ED REM 421, Educational and Psychological Measurement or
ED REM 431, Educational Research Methods (an option if a prerequisite measurement course was completed at the undergraduate level)
ELE ED 422, Curriculum Construction in Elementary School and
ELE ED 423, Curriculum Implementation in Elementary School

Career Outlook

The field of Early Childhood Education has experienced a marked increase in the demand for highly qualified and professional prepared educators. As research continues to focus on the crucial early years of development, the need for trained professionals in early care and education will continue to rise. Early childhood graduates at all degree levels are attractive candidates for employment in a variety of educational positions. The downward extension of "ages of schooling" opens employment opportunities in the public and private sector. Future expansions of opportunities in schools are tied to population growth, increased specialization of services, and reduction in ratios between professional staff and children served. Additional career opportunities exist for early childhood educators in specialized child care, private family care, instruction and training, corporations, self-owned businesses, and family focused public and private agencies. Qualified early childhood educators can and do make a powerful difference in the lives of families and children.

Teaching and Learning

Elementary Education

Undergraduate Studies

Bachelor of Science in Education: Elementary Education

The elementary education program prepares students to teach in grades one through six.

General Education Requirements:

English and Communication (9 hours)
English 10, Composition
English 210, Advanced Expository Writing
Communication: 3 hours

Mathematics (6 hours)

Math 50, Structure of Mathematical Systems I

Science

Biological Science: includes lab (5 hours)
Biology 130 (3 hours)
Physical Science: includes lab (4 hours)

Humanities (8 hours)

Three courses from two of the following fields: art, music, philosophy, and literature.

Social Science (21 hours)

Psych 3, General Psychology
Psych 270, Child Psychology
PolSci 11, Introduction to American Politics or equivalent

and one of the following history courses

Hist 3, American Civilization
Hist 4, American Civilization

and the following courses:

PolSci 11, Introduction to American Politics
PolSci 85, Global Ecology
Soc 10, Introduction to Sociology, or any anthropology course.

Middle School/Junior High (5-9)

General education requirements are the same as for Elementary Education, except that Psychology 271, Adolescent Psychology, is taken in lieu of Psychology 270, Child Psychology.

Related Area Requirements

PHY ED 130, Elements of Health Education
PHY ED 165, Physical Education Activities for the Elementary School
ELE ED 177, Elementary School Music
ELE ED 179, (Art 139), Art Activities for Elementary School

Program Requirements

EDUC 101, Introduction to Classroom Teaching
ED FND 111, The School in Contemporary Society
ED PSY 312, Psychology of Teaching and Learning
SPC ED 313, The Psychology and Education of Exceptional Individuals

and these Elementary Education (ELE ED) courses:

246, Teaching Mathematics in the Elementary School
253, Teaching of Social Studies in the Elementary School
*290, Elementary School Student Teaching I
*291, Elementary School Student Teaching II
330, Children's Literature and Reading
336, Teaching Language Arts and Reading, N-9
341, Teaching of Science in the Elementary School
385, Teaching Reading in the Elementary School
389, The Analysis and Correction of Reading Problems in the Classroom

*Note ELE ED 290 and ELE ED 291 must be taken during the same semester.

Attention Education Majors: Professional Education courses must be completed with a grade point average of 2.50 and no grade lower than a C (2.0). A C- grade is not acceptable.

Post-degree certification students may take ED FND 330, History of American Education, or ED FND 421, Philosophy of Education, in lieu of ED FND 111.

Changes in teacher certification requirements in this area are upcoming. To obtain the latest information on requirement changes or to find out whether the new requirements will apply to you, contact the Office of Undergraduate Teacher Education, 155 Marillac Hall.

Total: 120 hours

Teaching and Learning

Bachelor of Science in Education: Elementary Education (Middle School/Junior High Certification)

This area of specialization in elementary education prepares students to teach in grades 5-9.

General Education Requirements

Students are required to take the general education requirements as indicated for Middle School/Junior High above.

Related Area Requirement

PHY ED 132, Personal Health

Program Requirements

ELE ED 101, Introduction to Classroom Teaching
ED FND 111, The School in Contemporary Society
ED PSY 312, Psychology of Teaching and Learning
SPC ED 313, The Psychology and Education of Exceptional Individuals

and these education courses:

ELE ED 389, The Analysis and Correction of Reading Problems in the Classroom
ELE ED 316, Middle Level Curriculum and Instruction
SEC ED 315, The Middle Level School
SEC ED 386, Teaching Reading in Secondary School Content Areas
SEC ED 305, Writing for Teachers
CNS ED 317, The Advisor-Advisee Program in Middle School
SPC ED 320, Behavior Management
ELE ED 290, Elementary School Student Teaching I
ELE ED 291, Elementary School Student Teaching II

Area of Concentration for State Certification

Middle School 5-9 requires a minimum of 21 hours for certification in the specific content of social studies and a minimum of 21 hours in another selected area with the appropriate methods course for each area. Students may elect, however, to do one area with a minimum of 30 hours plus the methods course.

Attention Education Majors: Professional Education courses must be completed with a grade point average of 2.50 and no grade lower than a C (2.0). A C- grade is not acceptable.

Post-degree certification students may take ED FND 421, Philosophy of Education, in lieu of ED FND 111.

Changes in teacher certification requirements in this area are upcoming. To obtain the latest information on requirement changes or to find out whether the new requirements will apply to you, contact the Office of Undergraduate Teacher Education, 155 Marillac Hall.

Total: 120 hours

Graduate Studies

Master of Education: Elementary Education

General Curricular Program or Specialization in Selected Curricular Areas

The M.Ed. student in elementary education may elect a general program or the emphasis in reading. Please note, however, that in either case the degree is the Master of Education in Elementary Education. Diplomas and transcripts do not show areas of specialization nor are special certificates awarded.

1) Core Competencies (12 hours)

To include ELE ED 410, Current Research in the Elementary School Curriculum; ELE ED 411, Curricular Issues in the Elementary School; and six hours selected, in consultation with advisers, from among cognate fields or professional education.

2) Content Competencies (12 hours)

Students desiring to specialize through a sequence of courses should select at least nine hours in one of the following areas: Children's Literature, Early Childhood, Language Arts, Mathematics Education, Reading, Science Education, Social Studies Education, or Special Education. Students who elect a general sequence should take no more than six hours in any one area.

3) Curricular Applications Competencies (9 hours)

Students must select, in consultation with their advisers, a measurement course, and complete the following: ELE ED 422, Curriculum Construction in Elementary Schools, and ELE ED 423, Curriculum Implementation in the Elementary School.

Teaching and Learning

Upon completion of ELE ED 410 and ELE ED 411 in phase one, each candidate selects a curricular area or areas, identifies an adviser from the elementary and early childhood education faculty, and plans appropriate course sequences. A candidate enrolling in the specialist program should select an adviser in the area of specialization.

The sequence of courses, ELE ED 410 and ELE ED 411 should be taken at the beginning of the program; ELE ED 422 and ELE ED 423 constitute the final two program courses. Students should note that ELE ED 411 is typically offered only during the Winter and Summer Semesters, ELE ED 422 is offered only during the Fall Semester and ELE ED 423 only during the Winter Semester.

Electives should be selected according to candidates' needs and/or interests.

Emphasis in Reading

The M.Ed. program with emphasis in reading is designed to enable candidates to further their competencies as reading teachers and prepares them for positions as remedial reading specialists, reading consultants, and/or for further graduate study. The minimum required and recommended courses are as follows:

1) Core Requirements

At least one graduate-level course in each of the following areas: learning psychology; research, statistics, and measurements; and elementary curriculum.

2) Courses in Reading

The following required courses in reading should be taken in sequence. Courses denoted by asterisks are required for certification in remedial reading by Missouri teacher certification regulations. Students, with their advisers' permission, may substitute other courses for any requirement if they have had a recent upper-class undergraduate course covering the same material.

Required are:

- *ELE ED 385, Teaching Reading in the Elementary School
- *SEC ED 386, Teaching Reading in Secondary School Content Areas
- these **Elementary Education (ELE ED)** courses:
 - *486, Clinical Diagnosis and Treatment of Reading Disabilities

*493, Clinical Methods in Child Study I

*494, Clinical Methods in Child Study II

Note ELE ED 493 is offered in Fall and Summer Semesters; ELE ED 494 is offered in the Winter and Summer.

and also:

ELE ED 482, Problems and Research in Teaching Elementary School Reading (offered only in the Winter Semester).

*ED REM 420, Classroom Measurement and Evaluation

*SPC ED 315, Speech and Language Problems, or

*ECH ED 331, Language Acquisition and Development

*SPC ED 320, Behavioral Management

*CNS ED 310, Introduction to the Counseling Profession

*ED PSY 417, Psychology of the Elementary School Child

*ED PSY 418, Psychology of Adolescence

Note SPC ED 412, Psychology of Exceptional Children, is required for certification if it has not been taken previously at the undergraduate or graduate level. It is not a degree requirement.

3) Electives

Following is a list of possible elective courses. Other courses may be selected from cognate fields after conferring with an adviser in reading.

English 220, Development of the English Language

ED FND 421, Philosophy of Education

ADU ED 311, Teaching Basic Reading Skills to Adults

ELE ED 484, Developmental Reading (K-13)

ELE ED 488, Supervision of School Reading Programs

Certification Options

A combined M.Ed. and certification option exists. Options include Elementary Education (1-8), Early Childhood Education (P-3), and Middle School/Junior High (4-9). Students should consult certification advisers. Graduate credit will not be given for courses at the 100 or 200 level.

Career Outlook

Undergraduate and graduate degrees in Elementary Education are most directly applicable to teaching at the level appropriate to the program emphasis. Increasing specialization of teaching assignments and downward extensions of "ages of schooling" continue to open

Teaching and Learning

employment opportunities. As in the past, elementary education graduates at all degree levels also continue to be attractive candidates for employment in many positions which require (or are well suited to) training in social and behavioral sciences. Positions in constant contact with and service to the general public such as sales, service, public relations, and general business are most common examples. Future expansions of opportunities in schools are tied to population growth, increased specialization of services, and reduction in ratios between professional staff and children served. Many presently employed teachers will retire within the next 5-10 years; consequently, a shortage of teachers is anticipated.

Physical Education

Undergraduate Studies

Bachelor of Science in Education: Physical Education

This program prepares students to teach physical education. Individuals can be certified for grades PK to 9 only or for grades PK to 12.

General Education Requirements (42 hours required):

Humanities

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.

Communication Skills

At least two courses in English composition and one in oral communications.

Social Studies

Courses in American history, American government, and psychology.

Natural Science

One course in a 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.

Note: All of the courses above must be a minimum of two semester hours.

Electives 11-14 hours

PK-9

The following courses in teaching of skills are required in **Physical Education (PHY ED)**, 14 hours:

- 220, Teaching of Skills: Movement & Rhythms
- 221, Teaching of Skills: Dance
- 222, Teaching of Skills: Grades PK-4
- 223, Teaching of Skills: Grades 5-9

The following theory of **Physical Education (PHY ED)** courses are required (31 hours):

- 234, Teaching of Wellness & Health Related Fitness
- 261, Physical Activity for the Exceptional Learner
- 267, Performance Analysis in Physical Education
- 275, Psychological Aspects of Physical Education
- 277, Historical/Philosophical Foundations of Physical Education and Sport
- 280, Human Anatomy and Physiology, or **Biology 113**, Human Physiology and Anatomy I
- 282, Physical Growth and Motor Development
- 283, Kinesiology
- 284, Physiology of Human Exercise
- 285, Sports Medicine

The following Professional Education courses are required (31 hours):

- ED FND 111, The School in Contemporary Society
 - EDUC 101, Introduction to Classroom Teaching
 - PSY 270, Child Psychology
 - ED PSY 312, Psychology of Teaching and Learning
 - SPC ED 313, The Psychology and Education of Exceptional Individuals
 - SEC ED 386, Teaching Reading in Secondary School Content Areas
 - PHY ED 268, The Curriculum and Methods of Teaching Physical Education
 - PHY ED 290, Student Teaching in Physical Education: PK-5
 - PHY ED 291, Student Teaching in Physical Education: 5-9
- Total: 124 hours**

Attention Education Majors: Professional Education courses must be completed with a grade point average of 2.50 and no grade lower than a C (2.0). A C- grade is not acceptable.

Grades PK through 12 Emphasis

The following courses in teaching of skills are required in **Physical Education (PHY ED)**, 18 hours:

- 220, Teaching of Skills: Movement & Rhythms
- 221, Teaching of Skills: Dance
- 222, Teaching of Skills: Grades PK-4
- 223, Teaching of Skills: Grades 5-9
- 224, Teaching of Skills: Grades 9-12

The following theory of **Physical Education (PHY ED)** courses are required (33 hours):

- 234, Teaching of Wellness & Health Related Fitness
- 261, Physical Activity for the Exceptional Learner
- 267, Performance Analysis in Physical Education
- 275, Psychological Aspects of Physical Education
- 276, Sociological Foundations of Physical Education and Sport
- 277, Historical/Philosophical Foundations of Physical Education and Sport
- 280, Human Anatomy and Physiology
- 282, Physical Growth and Motor Development
- 283, Kinesiology
- 284, Physiology of Human Exercise
- 285, Sports Medicine

Teaching and Learning - Physical Education

The following Professional Education courses are required (37 hours):

ED FND 111, The School in Contemporary Society
ED 101, Introduction to Classroom Teaching
SEC ED 213, Techniques of Secondary School Teaching and Field Experience
PSY 270, Child Psychology
PSY 271, Adolescent Psychology
ED PSY 312, The Psychology of Teaching and Learning
SPC ED 313, Psychology and Education of Exceptional Individuals
SEC ED 386, Teaching Reading in Secondary School Content Areas
PHY ED 268, The Curriculum and Methods of Teaching Physical Education

Two of the following three:

PHY ED 290, Student Teaching in Physical Education PK-5
PHY ED 291, Student Teaching in Physical Education 5-9
PHY ED 292, Student Teaching in Physical Education 9-12

Total: 133 hours

Attention Education Majors: Professional Education courses must be completed with a grade point average of 2.50 and no grade lower than a C (2.0). A C- grade is not acceptable.

Changes in teacher certification requirements in this area are upcoming. To obtain the latest information on requirement changes or to find out whether the new requirements will apply to you, contact the Office of Undergraduate Teacher Education, 155 Marillac Hall.

Athletic Coaching Minor

An Athletic Coaching Minor is available (minimum of 20 hours). The following courses are required:

PHY ED 280, Human Anatomy and Physiology
PHY ED 285, Sports Medicine
PHY ED 275, Psychological Aspects of Physical Education
PHY ED 283, Kinesiology
PHY ED 284, Physiology of Human Exercise
PHY ED 224, Teaching of Skills: Grades 9-12
PHY ED 312, Management of Sports Programs
PHY ED 330, Prescribing Physical Activity

All courses apply to, but do not complete, teaching certification in Missouri.

Master of Education: Elementary or Secondary Education with Physical Education as Teaching Field

A significant number of graduate students choose physical education as the teaching field within one of the Master of Education degree options. Most are currently employed as teachers of health and/or physical education. Certification requirements in Missouri mandate the completion of a master's degree to professionalize the certificate. Therefore, a full complement of graduate courses relating to teaching in physical education is available to meet this need. For many who need to pursue teacher certification in physical education while pursuing the master's degree, most course work needed to meet state certification requirements can be taken in the master's program. For those employed outside of education, an emphasis in Exercise Science is also available, providing a foundation of course work designed to prepare a person in this area. Specific information is available regarding each of these degree programs. Please consult with your graduate adviser to discuss the specific options and requirements.

Career Outlook

The employment outlook for physical educators in the schools continues to be very strong and positive, especially in the elementary and middle school levels. Recent placement years have yielded full employment opportunities to UM-St. Louis graduates. Rising school enrollments and the expected retirement of a significant portion of currently employed teachers signal optimistic outlooks for the next few years. In addition to elementary, middle school, and high school physical education teaching, more limited opportunities exist in athletic training, dance, research sports management, and exercise leadership fields serving persons of all categories.

Secondary Education

Undergraduate Studies

Bachelor of Science in Education: Secondary Education

Interdisciplinary Program: Bachelor of Science in Education in Secondary Education or Bachelor's Degree in the College of Arts and Sciences

General Education Requirements

Bachelor's degree candidates in secondary education must complete the University General Education Requirements and must meet the Missouri secondary teacher certification general education standards as follows.

Teaching and Learning

Humanities

Three courses required from the following fields: music (excluding applied music), art, foreign language, Western and non-Western cultures, philosophy, literature, classical studies, and theatre and drama.

Communication Skills

At least two courses in English composition and one in oral communications.

Social Studies

Courses in American history and American government, and one additional course selected from the following areas: geography, sociology, economics, anthropology, psychology.

Natural Science

One course in a 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.

Note All of the courses above must be a minimum of two semester hours.

Program Requirements (28 hours required)

The following education and psychology courses meet the state professional education standards:

ED FND 111, The School in Contemporary Society
 PSY271, Adolescent Psychology
 ED PSY 312, Psychology of Teaching and Learning
 SEC ED 213, Techniques of Secondary School Teaching and Field Experience
 SEC ED 290, Secondary School Student Teaching
 SPC ED 313, The Psychology and Education of Exceptional Individuals
 SEC ED 386, Teaching Reading in Secondary School Content Area
 and the appropriate course titled Curriculum and Methods of Teaching.

Attention Education Majors: Professional Education courses must be completed with a grade point average of 2.50 and no grade lower than a C (2.0). A C- grade is not acceptable.

Note Music education students take the following courses instead of SEC ED 290: SEC ED 293, Student Teaching in Music Education K-6, and SEC ED 294, Student Teaching in Music Education 7-12. These two courses must be taken during the same semester.

Area of Concentration: Teaching Fields

Degree candidates must complete 30 to 50 hours of specific subject requirements in one of the following fields: English, foreign language (French, German, or Spanish), mathematics, music, science (biology, chemistry, physics), or social studies education.

Social studies students must complete a major in one of the following disciplines: anthropology (BA only at UM-St. Louis), economics, geography, (no available at UM-St. Louis) history, political science, psychology, or sociology; and meet these minimum social science requirements: American history, 12 hours; European or world history, 9 hours; United States and/or state government, 6 hours; economics, 3 hours; behavioral science (sociology, anthropology, or psychology), 6 hours; geography, 3 hours; and 2 hours of elective social studies credit.

Total: 120 hours

Bachelor of Science in Education: Secondary Education with Emphasis in Business Education

General Education Requirements Business education majors must complete the University General Education Requirements, Missouri certification requirements, and the following education and psychology courses:

Program Requirements (32 hours required)

ED FND 111, The School in Contemporary Society
 PSY 271, Adolescent Psychology
 ED PSY 312, Psychology of Teaching and Learning
 SEC ED 213, Techniques of Secondary School Teaching and Field Experience
 SEC ED 290, Secondary School Student Teaching
 SEC ED 204, Seminar: Business Education Student Teaching
 SPC ED 313, The Psychology and Education of Exceptional Individuals
 SEC ED 386, Teaching Reading in Secondary School Content Areas

Academic Major (36 hours required)

These Secondary Education (SEC ED) courses:

162, Computer Keyboarding and Formatting
 261, Methods of Teaching Keyboarding and Formatting
 263, Methods of Teaching Accounting
 264, Methods of Teaching Basic Business Subjects
 *265, Secretarial Practice
 267, The Secondary Business Curriculum
 *362, Shorthand/Alpha Systems: Theory and Application
 361, Information Processing: Applications and Techniques of Teaching
 367, Methods of Teaching Desktop Publishing Concepts and Procedures

plus these Business Administration courses

103, Computers and Information Systems
 140, Fundamentals of Financial Accounting
 145, Managerial Accounting
 156, Legal Environment of Business
 256, Business Law I
 206, Basic Marketing and
 ECON 51, Principles of Microeconomics

Note Grades of C or better are required in all courses in the academic major. This long standing policy will be rigorously enforced.

Teaching and Learning

*Majors working toward shorthand certification must take these additional courses, and are not required to take BA 206.

Electives

Electives are to be selected only after consulting with a faculty adviser.

Total: 120 hours

B.S. degree in Secondary Education with an emphasis in science-physics and certification in Unified Science with an endorsement in physics.

In addition to the general requirements for the B.S. degree in secondary education, students must complete the following:

Science Core Courses:

Philosophy 280, Philosophy of Science

Biology

11, Introductory Biology I

12, Introductory Biology II

Chemistry

11, Introductory Chemistry I

12, Introductory Chemistry II

Geology 1, General Geology

Meteorology 1, Elementary Meteorology

Biology 120, Environmental Biology or another environmental science

Physics

111, Physics: Mechanics and Heat

112, Physics: Electricity, Magnetism, and Optics

Physics Endorsement

Physics

200, Survey of Theoretical Physics

221, Mechanics

223, Electricity and Magnetism

231, Introduction to Modern Physics

304, Modern Electronics

311, Advanced Physics Laboratory I

Graduate Studies

Master of Education: Secondary Education

The M.Ed. program in secondary education is flexibly designed to allow for the special interests of teachers, department chairpersons, curriculum workers, instructional supervisors, reading specialists, and those working in adult education. Programs must be planned with advisers and meet the approval of the Department, School, and Graduate School.

Degree Requirements for All Secondary Education M. Ed. Students

The minimum 32-hour program for all secondary education majors includes the following requirements:

Core Requirements (9 hours)

ED FND 421, Philosophy of Education

SEC ED 415, The Secondary School Curriculum

SEC ED 420, The Improvement of Secondary School Teaching

Exit Requirement (3 hours)

One of the following courses must be taken as part of the last nine hours in the M.Ed. program in secondary education:

ED FND 422, Analysis of Educational Issues

SEC ED 416, Curriculum Construction for Secondary Schools

In addition to the above courses, the following is a third exit course option, limited solely to those in the Adult Education Emphasis or Business Education teaching field:

ADU ED 490, Internship (in Adult Education)

Any of the above courses, when not used to meet the exit requirement, may be included as an elective in the program.

Master of Education: Secondary Education with Emphasis in Curriculum and Instruction

The M.Ed. with an emphasis in curriculum and instruction is designed to enable candidates to further their competencies as teachers or curriculum/instructional leaders.

Degree Requirements (32 hours)

1) **Core Requirements** (9 hours as specified above)

2) **Curriculum/Instruction Core** (8 hours) Courses are to be selected in consultation with an adviser in the curriculum/instruction field from among the following:

SEC ED 315, The Middle Level School

SEC ED 386, Teaching Reading in Secondary School Content Areas

SEC ED 414, Teaching the Gifted and Talented in Secondary Schools

SEC ED 416, Curriculum Construction for Secondary Schools

SEC ED 422, Individualizing Instruction in Secondary Schools

PHY ED 462, The Physical Education Curriculum

3) **Teaching Field Core** (8 hours)

Courses approved by the Graduate School for M.Ed. programs are to be selected in consultation with an adviser in secondary education.

4) Electives

Additional courses may be taken in the School of Education and/or curriculum and instruction areas to provide a consistent program upon the recommendation of the adviser.

Teaching and Learning

Master of Education: Secondary Education with Emphasis in Adult Education

The M.Ed. with an emphasis in adult education is designed to enable candidates to further their competencies as teachers, administrators, and program planners in various adult education settings through the study of core courses in adult education, plus a minimum of eight hours of elective work appropriate to the candidates' particular needs. Adult Basic Education (ABE) practitioners can complete course requirements for certification within the scope of or independent from the master's degree program.

Degree Requirements (32 hours)

1) Core Requirements (9 hours as specified above)

2) Adult Education Core (8 hours)

Courses are to be selected in consultation with an adviser in the adult education teaching field from among the following courses:

- *ADU ED 412, Foundations of Adult Education
- *ADU ED 413, Improvement of Instruction in Adult Education
- *ADU ED 414, Curriculum Theory and Development in Adult Education
- *ED ADM 480, Administration of Adult and Community Education
- ADU ED 490, Internship, or ADU ED 497, Problems in Adult Education

3) Electives

Additional courses may be taken in the School of Education and/or teaching field to provide a consistent program upon the recommendation of the adviser.

Adult Basic Education Certification

- *ADU ED 311, Teaching Basic Reading Skills to Adults
- *ELE ED 445, Problems of Teaching Arithmetic in the Elementary School, or ELE ED 346, Advanced Methods in Elementary School Mathematics

*Eight semester hours from these six courses, and three hours of Adult Education electives, in addition to SPC ED 313, Psychology and Education of Exceptional Individuals, are required for five-year certification from the Missouri Department of Elementary and Secondary Education.

Adult Basic Education (ABE) Certification

1) Requirements for two-year teacher's certificate in ABE:

- a. A holder of a bachelor's degree from a four-year college or university.
- b. Annual attendance at Department of Elementary and Secondary Education (DESE) approved Adult Basic Education teacher certification workshops.

(The two-year ABE certificate may be renewed twice. Requirements for a five-year certificate must be completed by the end of the sixth year.)

2) Requirements for a five-year teacher's certificate in ABE:

- a. A holder of a bachelor's degree from a four-year college or university.
- b. Earn eight semester hours in DESE approved Adult Education classes, institutes, or workshops.

(The five-year ABE certificate may be renewed an unlimited number of times by repeating the requirements during the previous five years.)

Note This would provide certification for (1) ABE teachers who are teaching less than half-time and/or without a contract and/or not in a public school or an accredited private school; and (2) ABE teachers with bachelor's degrees and experience teaching adults who do not have regular teacher certification. Information is available for Professional Certificates for full-time ABE teachers.

Master of Education: Secondary Education with Emphasis in Reading

The M.Ed. with an emphasis in secondary reading is designed to enable candidates to further their competencies as teachers of reading and to prepare for positions as reading specialists, reading consultants, and/or further graduate study.

Degree requirements (32 hours)

1) Core Requirements (9 hours as specified above)

2) Reading Core

Required courses in reading should be taken in the following sequence:

- SEC ED 386, Teaching Reading in Secondary School Content Areas
- ELE ED 486, Clinical Diagnosis and Treatment of Reading Disabilities
- ED REM 422, Individual Assessment of Cognitive Abilities
- ELE ED 493, Clinical Methods in Child Study I
- ELE ED 494, Clinical Methods in Child Study II
- ELE ED 482, Problems and Research in Teaching Elementary School Reading

To complete Missouri reading certification for grades K-12, the following must be taken or have been completed at the undergraduate level. Students should see an adviser.

- SPC ED 315, Speech and Language Problems of Exceptional Children, or
- ECH ED 331, Language Acquisition and Development in Early Childhood
- SPC ED 320, Behavior Management
- CNS ED 327, Personal and Professional Development in Counseling
- ED PSY 417, Psychology of the Elementary School Child
- ED PSY 418, The Psychology of Adolescence

Teaching and Learning

3)The same exit requirement exists as outlined above for all students in the Master of Education degree program in Secondary Education.

Master of Education: Secondary Education and Certification

The M.Ed. in secondary education requires a minimum of 32 hours of graduate credit. Depending upon the area of secondary school specialization, certification may require from 28 to 36 semester hours of undergraduate course work, making a total of over 60 semester hours of graduate and undergraduate work. Under the combined program up to 15 hours of graduate courses may be substituted for the same number of undergraduate courses. Students seeking such certification must obtain advisement from the office of Teacher Education, the Department of Educational Studies, and from the appropriate faculty joint appointee in the Department of Educational Studies and respective Arts and Sciences department.

Degree Requirements

Required and Recommended Courses

1)Professional Requirements

SEC ED 2XX, Curriculum and Methods of Teaching
SEC ED 213, Techniques of Secondary School Teaching and Field Experience
SEC ED 290, Secondary School Student Teaching
SEC ED/A&S Dept., 2XX or 3XX Teaching Intern Seminar (1-3)

2)Certification and M.Ed. Requirements

ED PSY 312, The Psychology of Teaching and Learning
SEC ED 386, Teaching Reading in Secondary School Content Areas
ED PSY 418, The Psychology of Adolescence
SPC ED 412, Psychology of Exceptional Children
ED FND 421, Philosophy of Education
SEC ED 415, The Secondary School Curriculum

Electives

Selected graduate courses, including at least eight hours in the teaching specialty or in curriculum/instruction.

Career Outlook

Secondary school teaching positions are more plentiful than in the recent past. Most certificated teachers can find jobs if they are willing to go where there are openings.

Teachers of mathematics and the sciences are in extremely high demand. The fields of humanities and social sciences have somewhat better immediate prospects than in the past. The preparation that teacher education graduates receive enables them to do well in service and sales positions. Job opportunities in the educational and training facets of these fields are good.

People with preparation in secondary education, educational technology, adult education, and educational administration find positions in education/training units in businesses, industries, health care organizations, governmental units, community agencies, and service institutions.

School administration opportunities are available to qualified individuals, particularly those who have completed advanced graduate programs. Community education is an expanding field and will need increasing numbers of people with preparation in that specialty.

Teaching and Learning

Special Education

Undergraduate Studies

Bachelor of Science in Education: Special Education

General Education Requirements (46 hours required):

English and Communication (6 hours)

English 10, Composition

Communication, 3 hours

English 210, 3 hours

Mathematics (3 hours)

50, Structure of Mathematical Systems I

No credit toward graduation is granted for Math 15, Mathematics: Ideas and Structures, unless Math 50 is completed.

Science (8 hours)

Biology (3)

Physical Science (Laboratory) (4)

Biology 130, Global Ecology (includes laboratory)

Humanities (8 hours)

Music 177, An Introduction to Music for the Elementary School Teacher (Recommended) plus two courses from art, music, philosophy, or literature

Social Science (21 hours)

History 3, American Civilization, or

History 4, American Civilization

PolSci 11, Introduction to American Politics

PolSci 85, Global Ecology

Psych 3, General Psychology

ED PSY 211, Growth and Development

Econ 306, Microeconomics for the School Curriculum, or

Econ 40, Introduction to the American Economy

Sociology 10, Introduction to Sociology, or any Anthropology course

Related Area Requirements (12 hours)

PHY ED 130, Elements of Health Education

PHY ED 261, Physical Activity of the Exceptional Learner

Program Requirements (24 hours)

EDUC 101, Introduction to Classroom Teaching

ED FND 111, The School in Contemporary Society

ED PSY 312, Psychology of Teaching and Learning

and these Elementary Education (ELE ED) courses:

ELE ED 246, Teaching Mathematics in the Elementary School

ELE ED 330, Children's Literature and Reading

ELE ED 336, Teaching Language Arts and Reading, N-9

ELE ED 342, Teaching Remedial Mathematics

ELE ED 385, Teaching Reading in the Elementary School

Special Education Requirements (36 hours)

The following courses are required:

SPC ED 290 Student Teaching in Special Education I

SPC ED 291 Student Teaching in Special Education II

SPC ED 342 Career Education for the Special Needs Individual

Note: SPC ED 290 and SPC ED 291 must be taken during the same semester.

ED REM 310, Interpretation of Educational Tests and Measurements

SPC ED 313, The Psychology and Education of Exceptional Individuals

SPC ED 315, Speech and Language Problems of Exceptional Children

SPC ED 320, Behavior Management

CNS ED 331, Counseling Individuals with Special Needs

ELE ED 389, The Analysis and Correction of Reading Problems in the Classroom and at least two of the following Special Education (SPC ED) courses. (It is important that an adviser be consulted.)

ELE ED 330, Introduction to Mental Retardation and Severe Handicaps

ELE ED 332, Education of the Mentally Retarded

ELE ED 345, Introduction to Emotional Disturbance and Learning Disabilities

ELE ED 347, Teaching in the Learning Disabilities Classroom

ELE ED 350, Instructional Techniques for the Emotionally Disturbed Student

ELE ED 371, Methods and Curricula for the Severely Handicapped

ELE ED 372, Screening and Diagnosis of the Developmentally Delayed

ELE ED 372, Screening and Diagnosis of the Developmentally Delayed

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ELE ED 372, Screening and Diagnosis of the Developmentally Delayed

ELE ED 372, Screening and Diagnosis of the Developmentally Delayed

Electives may be taken from among the following (strongly recommended): 9 hours

SPC ED 322, Teaching Mainstreamed Students

ELE ED 241, Teaching of Science in the Elementary School

ELE ED 253, Teaching of Social Studies in the Elementary School

Attention Education Majors: Professional Education courses must be completed with a grade point average of 2.50 and no grade lower than a C (2.0). A C- grade is not acceptable.

Changes in teacher certification requirements in this area are upcoming. To obtain the latest information on requirement changes or to find out whether the new requirements will apply to you, contact the Office of Undergraduate Studies in Education, 155 Marillac Hall.

Total: 120 hours

Teaching and Learning

Graduate Studies

Master of Education: Special Education

Graduate students should understand that completion of the M.Ed. program in Special Education does not assure teaching certification. Students seeking the degree and certification should consult with their advisers.

Following is the recommended curriculum for students enrolled in the Learning Disabilities, Mental Retardation, Behavioral Disorders, or Early Childhood-Special Education options.

Area of Specialization Students are required to complete 9-18 hours from the following areas:

Knowledge Base (3-6 hours) (SPC ED)

- 497, Problems
- 431, Problems in Mental Retardation
- 443, Learning Disabilities
- 450, Introduction to Behavioral Disorders
- 462, Introduction to Early Childhood-Special Education

Curriculum (3-6 hours) (SPC ED)

- 415, The Secondary School Curriculum
- 416, Curriculum Construction for Secondary Schools
- ELE ED 410, Current Research in the Elementary School Curriculum
- 413, Organizational Foundations for Special Education
- 421, Prescriptive Teaching of Exceptional Children
- 430, Education of the Mentally Retarded
- 444, Education of Children with Learning Disabilities
- 452, Education of Behaviorally Disordered Children
- 463, Curriculum, Methods and Materials for Early Childhood-Special Education

Practicum (3-6 hours)

At least **three hours** must be taken in SPC ED 492, Practicum in Special Education.

Psychological Foundations and Human Development (3-6 hours) (ED PSY)

- 411, Psychology of Education
- 417, Psychology of the Elementary School Child
- ED PSY 418, The Psychology of Adolescence
- 412, Psychology of Exceptional Children
- 416, Current Research in Psychology of Exceptional Children

Educational Research and Evaluation Methods (3-6 hours) (ED REM)

- 330, Educational Statistics
- 420, Classroom Measurement and Evaluation
- 421, Educational and Psychological Measurement
- 422, Individual Assessment of Cognitive Abilities

Electives may be chosen from the courses listed here and from other courses with approval of the adviser and department chairperson.

Career Outlook

The employment outlook for special education teachers continues to be favorable, especially in certain positions. In addition to special classroom teaching, graduates of the area have been employed as resource-room teachers, clinical diagnostic personnel, itinerant teachers, educational resource teachers, consultants, educational therapists, sheltered workshop evaluators, and in various supervisory and administrative positions in agencies and schools.

In combination with counseling, educational psychology, physical education, or other areas, careers can be planned in such occupations as vocational evaluator, counselor for special-needs individuals, and special physical educators.

Teaching and Learning

Course Descriptions

Courses in this section are grouped as follows: Adult Education (ADU ED), Early Childhood Education (ECH ED), Educational Foundations (ED FND), Educational Technology (ED TEC), Elementary Education (ELE ED), Physical Education (PHY ED), Secondary Education (SEC ED), and Special Education (SPC ED).

Prerequisites may be waived by consent of the department.

Adult Education (ADU ED)

311 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.

404 Seminar in Adult Education Research (1-10)

Prerequisites: ADU ED 410 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.

410 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.

412 Foundations of Adult Education (3)

Prerequisites: ADU ED 410 or consent of instructor. A comprehensive, systematic foundation for adult education. It will relate (a) the pragmatic philosophy and objectives of adult education in America to (b) the continuing education of the adult in a progressive social context.

413 Improvement of Instruction in Adult Education (3)

Prerequisites: ADU ED 410 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.

414 Curriculum Theory and Development in Adult Education (3)

Prerequisites: ADU ED 410 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.

425 Principles of Business Education (3)

Prerequisites: Business education certification and consent of instructor. Designed for the business education teacher, this course examines in depth the principles, practices, and problems of business education programs. It emphasizes research into historical and philosophical implications, the influence of contemporary attitudes on business education, evaluation of current programs, and development of innovative approaches. It may be applied toward Missouri Vocational Business Education certification.

426 Coordination of Cooperative Vocational Programs (3)

This course deals with student selection procedures. Coordinating vocational instruction and planned employment experiences; research techniques for collecting and analyzing data for process and product evaluation; procedures for implementing new ideas and innovations in cooperative vocational education programs. The course is designed for vocational teachers and for teachers who wish to qualify as coordinators of cooperative vocational programs. This course may be applied toward Missouri Vocational Certification.

427 Improvement of Instruction in Teaching Business Subjects (3)

Prerequisites: Business education certification and consent of instructor. Designed for business education teachers, this course examines current trends in planning, organizing, developing, and evaluating instructional materials relevant to business education classes. Emphasis is placed on research techniques and strategies for selecting and utilizing appropriate curriculum materials, resources, and media to match learning needs. This course may be applied toward Missouri Vocational Certification.

432 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 nondegree 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.

435 Problems in Teaching College Biology (3)

(Same as Biology 485.) Prerequisites: Teaching experience, 30 semester hours in biology, and consent of the instructor. Basic philosophies underlying undergraduate biology education at the college level will be presented and examined with concern for establishment of an individual philosophy in the prospective college teacher. Teaching techniques suitable for college-level instruction will be considered, practiced, and evaluated. Advantages and limitations of various methods of instruction will be considered with respect to current research findings.

Teaching and Learning

(ADU ED)

490 Internship (1-10)

Prerequisites: ADUED 410 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.

497 Problems in Adult Education (1-10)

Prerequisites: ADUED 410 or consent of instructor. Independent study on topics in adult education.

Early Childhood Education (ECH ED)

290 Student Teaching in Early Childhood Education I (5)

Prerequisites: ED FND 111, Psychology 270, ECH ED 312, ECH ED 333, ELE ED 385, ELE ED 336, Communication 40, English 210, ED PSY 312, ELE ED 230, ELE ED 389, ECH ED 321, ECH ED 331, ECH ED 317, ECH ED 346, and ECH ED 314; and admission to student teaching. Must be taken with ECH ED 291, and must immediately precede ECH ED 291 in the semester. Clinical teaching experience in early childhood education classrooms in the schools under University and school supervision. Required for all majors in early childhood education.

291 Student Teaching in Early Childhood Education II (5)

Prerequisite: ECH ED 290. Must be taken "in block" with ECH ED 205 and ECH ED 290 and must follow ECH ED 290 in the semester. Clinical teaching experience in early childhood education classrooms in the schools under University and school supervision. Assignments will be in different school districts, buildings serving families of different socio-economic and cultural backgrounds, and at different age/grade levels from those of the ECH ED 290 assignments. Required of all majors in early childhood education.

303 Curriculum and Practice Laboratory: Infant/Toddler (1)

Classroom experience in infant or toddler classrooms under direction of university personnel. Must be taken concurrently with ECH ED 313, Curriculum and Practice: Infant/Toddler.

304 Curriculum and Practice Laboratory: Preschool (1)

Classroom experience in preschool classrooms under direction of university personnel. Must be taken concurrently with ECH ED 314, Curriculum and Practice: Preschool.

305 Curriculum and Practice Laboratory: Primary (1)

Classroom experience in primary classrooms under direction of university personnel. Must be taken concurrently with ECH ED 315, Curriculum and Practice: Primary.

312 Introduction to Early Childhood Education (3)

Prerequisites: ED FND 111 and ED PSY 312. Study of basic principles underlying good schools for young children. Students will use theoretical base as well as on-site observations to develop an awareness of teaching-learning strategies appropriate for the developmental needs of children from birth through age eight. Scheduling, classroom arrangement, and child management practices will be considered. Throughout the course, students will be expected to begin developing their own philosophy of early childhood education.

313 Curriculum and Practice: Infant/Toddler (2)

Prerequisite: ECH ED 312. Focuses on planning integrated curriculum for child from birth to 30 months. Includes working with parents and community resources. Lab required.

314 Curriculum and Practice: Preschool Education (2)

Prerequisite: ECH ED 312. Focuses on planning integrated curriculum for the preschool classroom with emphasis on science, social studies, creative activities and technology. Working with parents and parent education emphasized. Lab required.

315 Curriculum and Practice: Primary Education (2)

Prerequisite: ECH ED 312. Focuses on planning integrated curriculum for the primary classroom with emphasis on science, social studies, creative activities and technology. Working with parents and parent education emphasized. Lab required.

317 Assessing Individual Needs for Early Childhood Instruction (3)

Prerequisites: ECH ED 312. Techniques of observing children and using assessment instruments to plan an individualized program for early childhood. Practicum experience required.

321 Parent and Community Resources in Early Childhood Education (3)

Prerequisite: Admission to the School of Education or graduate status. Competencies for working with parents and community agencies will be developed through a study of community and community resources. Procedures for parent participation and use of service agencies in the education of all young children, including those with special needs, will be examined.

Teaching and Learning

(ECH ED)

331 Language Acquisition and Development in Early Childhood (3)

Prerequisite: ED PSY 312. Development of language and the effects environmental and cultural factors have on the acquisition process. Identification of language problems for purpose of referral. Includes preschool classroom practices to support language development. Practicum experiences included.

332 Early Literacy (3)

Prerequisites: ECH ED 312 and ECH ED 331. Study of children as they construct literacy knowledge from birth to early elementary. Development of meaningful and developmentally appropriate activities in which reading and writing are used to support children's skills. Criteria for choosing and assessing literature as a vehicle for literacy for children from birth to eight will be addressed.

341 Exploring the Physical World with Young Children (3)

Prerequisites: ECH ED 312 and completion of science requirements in general education. A study of and experiences with materials, techniques, and resources for broadening the child's awareness and understanding of science.

346 The Acquisition of Mathematical Concepts (3)

Prerequisites: Formal admission to the Teacher Education Program, EDPSY 312, and Math 50. Applications of the major theorists to mathematics reasoning. Content is appropriate for pre-k to third grad learners. Research and its implications for practice in the areas of logical thinking, pre-number ideas, geometry, topology, problem solving and arithmetical operations are considered.

351 Exploring the Social World With Young Child (3)

Prerequisites: ECH ED 312 and completion of social science requirements in general education. A study of and experience with materials, techniques, and resources for furthering the child's mastery of the skills of communication; understanding of people, social roles, society, and various cultures; and ability to develop satisfying relationships with peers and adults.

390 Student Teaching in Early Childhood Education III (5)

Prerequisites: ECH ED 291 or equivalent and admission to student teaching. Clinical teaching experience in early childhood education classrooms in the schools under University and school supervision with seminar included. For students who wish an additional student teaching experience.

412 Foundations of Early Childhood Education (3)

Prerequisite: A course in child psychology or equivalent. A study of the various types of early childhood programs and the philosophy upon which they are based. Attention will also be directed to the implementation of such programs, problems of parent involvement, and the social environment of the children.

413 The Educational Role of Play (3)

Prerequisite: ECH ED 312 or equivalent. Emphasizes play as a constructive process with applications to cognitive and social development. Special attention to facilitating play in early childhood classrooms.

490 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.

497 Problems (1-10)

Prerequisite: Graduate standing. Individual study on topics pertaining to early childhood education.

Educational Foundations (ED FND)

111 The School in Contemporary Society (3)

The introductory course in teacher education. An examination of the organization and purpose of the school in its social setting. Selected representative educational themes and issues will be studied. Required of students admitted to the School of Education. Prerequisite to other professional courses.

251 Black Americans in Education (3)

An examination and analysis of conditions affecting the education of black Americans and their schools, with emphasis on relationships between schools and the black community, and needed changes in education.

330 History of American Education (3)

Prerequisite: A course in American history or consent of instructor. An overview of the evolutionary development of American educational theory and practice from the early colonial period to the present. Attention is also given to selected issues in professional education.

332 Progressivism and Modern American Education (3)

Relationship between American progressive school theory and contemporary classroom practices, including the open classroom, the community school, the alternate school, open admissions, and learning by individual contract. Trends will be interpreted in the light of various roles of the classroom teacher in the modern school.

Teaching and Learning**(ED FND)****340 Comparative Education (3)**

A study of selected Western and non-Western educational themes and issues viewed in the context of their respective cultures.

410 Development and Organization of Urban School Systems (3)

An examination and analysis of the development and existing conditions affecting urban education, with emphasis on current efforts to bring about quality education in urban areas. A review of current projects and research, as well as the effect of these projects upon the school systems, would be included.

421 Philosophy of Education (3)

A study of the fundamentals of education in the light of modern science and philosophy.

422 Analysis of Educational Issues (3)

Prerequisite: A course in philosophy of education or a course in history of education, or consent of instructor. A critical examination of issues about the elementary and secondary schools. This is done through the analysis of the procedures, resources, and goals that guide school policies and practices.

435 History of Western Education (3)

A course designed to survey the educational development of Western civilization from approximately the eighth century BC until the present. Salient educational theory and practice will be considered in their appropriate social context.

490 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.

Educational Technology (ED TEC)**245 Audiovisual Equipment Operation for Classroom Teachers (1)**

An entry-level course for all teacher education students. May be taken concurrently with ED TEC 246. A self-paced, modularized, and criterion referenced course. Students will demonstrate competence in operating standard audiovisual equipment normally found in the schools.

246 Preparation of Inexpensive Materials for the Classroom (1)

An entry-level course for teacher education students. May be taken concurrently with ED TEC 245. A lecture-demonstration laboratory course in material preparation for classroom use.

247 Integration of Media and Materials in Instructional Planning (1)

Prerequisites: ED TEC 246, and for secondary education students, SEC ED 213. Course concentrates on the integration of media and materials in lesson planning. Through lecture, demonstration, and individualized instruction, the student designs an instructional unit and prepares appropriate material for that unit. ED TEC 246 must be taken prior to, or concurrently with, this course.

248 Utilization of Computer-Based Materials in Instruction (1)

Utilizing a series of computer-based education modules, the instructional uses of the computer are explained and demonstrated. Students develop practical experience in using and evaluating computer materials for classroom use.

340 Selection and Utilization of Educational Media (3)

Introduction to the selection, use, and evaluation of audiovisual materials and equipment including films, slides, transparencies, projectors, globes, charts, maps, bulletin boards, plus programmed materials, information retrieval systems, and instructional television.

345 Preparation of Graphic Materials for Audiovisual Education (3)

Prerequisite: ED TEC 340 or consent of instructor. Not open to lower division students. A lecture-demonstration-laboratory course that emphasizes the graphic arts component of audiovisual material production. Theories of learning and communication are used in the design and production of materials used for classroom settings.

346 Instructional Television (3)

Prerequisite: ED TEC 340 or consent of instructor. Not open to lower division students. A lecture-demonstration laboratory course designed to concentrate on the use of instructional television in formal and informal learning situations. Basic script writing, management of ITV systems, and design and production of low-budget programs will be emphasized.

353 Principles of Photographic Production for Education (3)

Prerequisite: ED TEC 340 or consent of instructor. A lecture-demonstration-laboratory course which stresses the application of theories of learning, perception, and retention to the visual medium of still photography. Emphasis on designing and producing photographic material that enhances the teaching/learning process.

Teaching and Learning**(ED TEC)****354 Principles of Motion Picture Production for Education (3)**

Prerequisite: ED TEC 340 or consent of instructor. A lecture-demonstration laboratory course. Emphasis on application of theories of learning, perception, and retention as they relate to motion picture production. Special attention will be given to the design and production of motion picture material that enhances the learning process.

404 Seminar in Educational Technology Research (3)

Prerequisites: ED TEC 340 and twelve hours of graduate work in educational technology. A review of research in educational technology with individual in-depth study. The student selects a research problem in conjunction with the instructor and completes a review project. Open to graduate students who have completed twelve hours of work in educational technology.

410 Computer-Based Graphics and Text Design and Production (3)

Prerequisite: Education 301 or permission of the instructor. A lecture-demonstration-laboratory course that emphasizes the theoretical and practical design of graphic and textual material through the use of computer-based graphics programs. Emphasis will be placed on the utilization of commercial software to produce graphic designs and desktop publishing projects such as newsletters, workbooks, and other textual materials.

412 Applications of Computers in Education (3)

Prerequisite: EDUC 301 or permission of instructor. Uses and capabilities of computers in the teaching, administration, and counseling areas of education. Familiarization with computing facilities and package programs.

415 Computer-Based Education: Authoring Software I (3)

Prerequisite: Education 301 or permission of the instructor. A lecture-demonstration-laboratory course that emphasizes the theoretical and practical design of computer-based educational materials. Students will develop practical experience in utilizing programming shells and authoring languages in the development of curricular-based CBE programs.

432 Educational Technology Systems Design (3)

Prerequisite: ED TEC 340. A lecture-demonstration course in the application of learning theory to the design of audiovisual materials. Emphasis on educational technology systems design, objectives, constraints, limitations, and evaluation. Methods of analyzing target populations and instructional demands along with decision-making models will be reviewed.

433 Educational Technology Systems Management (3)

Prerequisite: ED TEC 340. Basic principles of management in design and operation of media programs and systems in various educational settings. Emphasis on strategies and alternative structures for achieving and evaluating functions of media centers.

435 Diffusion and Adoption of Innovations in Educational Technology (3)

Prerequisite: ED TEC 340. A lecture course designed to provide an overview of the diffusion and adoption of technical innovations in the educational system. This course will include the technological, sociological, psychological, and political aspects of the process of diffusion and adoption. Various models, techniques, and applications of the diffusion and adoption process are emphasized.

446 Advanced Instructional Television Production (3)

Prerequisite: ED TEC 340 and ED TEC 346. Advanced management, script writing, and production of ITV programs. Laboratory activities in production of systematically designed instruction. Each student will produce ITV programs involving writing, production of graphics, directing, editing, and validating the programs.

490 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.

493 Practicum in Educational Technology (3)

Prerequisite: ED TEC 340 or consent of instructor. Focus is on the application of principles of instructional development to teaching problems in educational technology. Selecting, developing, adapting, and using instructional technology appropriate to the specific teaching problems is an integral part of this course.

497 Problems (1-10)

Prerequisite: ED TEC 340 or consent of instructor. Individual study on topics pertaining to educational technology.

Elementary Education (ELE ED)**82 Effective Reading and Study Skills (2)**

Designed to increase reading rate and comprehension and to develop study techniques appropriate to the purpose and difficulty of materials. Use is made of mechanical pacer, comprehension tests, vocabulary materials, and lecture demonstrations. No credit toward a degree.

Teaching and Learning (ELE ED)**177 Elementary School Music (2)**

Prerequisite: Consent of department. The role of the classroom teacher in the development of the elementary school general music program; selection of music, demonstration and practice of methods, and study of resources. This course will not apply toward requirements for a music major.

179 Art Activities for Elementary Schools (3)

(Same as Art 134.) A study of art principles; provides laboratory experiences with various media and materials. Stresses curriculum planning and developments of the elementary school program in art. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

192 Educational Laboratory/Field Experience (1-3)

A laboratory/field experience requiring systematic observation and/or participation in appropriate educational settings. To precede student teaching. May be repeated to maximum of three hours.

246 Teaching Mathematics in the Elementary School (3)

Prerequisites: ED FND 111, junior standing, and completion of mathematics requirements in general education. Organization and implementation of a modern elementary school mathematics program. A field experience involving several visits to local elementary schools is a required assignment of the course.

253 Teaching of Social Studies in the Elementary School (3)

Prerequisites: ED FND 111, junior standing, and completion of social science requirements in general education. Study of elementary school social studies emphasizing the current social studies curricular content, methods of teaching, and instructional materials. Analysis of forces affecting objectives, materials, and teaching techniques.

277 Curriculum and Methods of Teaching Elementary School Music (3)

(Same as Music Education 257.) Prerequisites: Music 131 and ED FND 111. For the music education major. A study of the elementary school music curriculum emphasizing the objectives, methods of teaching and staffing music classes, and analysis of instructional materials and resources. This course must be completed in residence.

290 Elementary School Student Teaching I (5)

Prerequisites: ED FND 111, ELE ED 101, Psych 270, ELE ED 336, ELE ED 385, Comm 40, English 210, ED PSY 312, ELE ED 230, ELE ED 341, ELE ED 253, ELE ED 246, ELE ED 389, and admission to student teaching. Must be taken with ELE ED 291, and must immediately precede ELE ED 291 in the semester. Clinical teaching experience in elementary school classrooms under University and school supervision. Required for all majors in elementary education.

291 Elementary School Student Teaching II (5)

Prerequisite: ELE ED 290. Must be taken "in block" with ELE ED 205 and ELE ED 290, and must immediately follow ELE ED 290 in the semester. Clinical teaching experience in elementary school classrooms under University and school supervision. Assignments will be in different school districts, buildings serving families of different socio-economic and cultural backgrounds, and at different grade levels from those of the ELE ED 290 assignments. Required for all majors in elementary education.

310 Elementary School Curriculum (3)

Prerequisites: ED FND 111 and junior standing. Study of modern education with regard to objectives, content, and methods in elementary school curriculum.

316 Middle Level Curriculum and Instruction (3)

Prerequisites: ED PSY 312 and admission to Teacher Education Program. Preparation for teaching and learning in a middle school, grades 5-9. Content focuses on curriculum development, methods, techniques, materials, planning, organization, and assessment in middle level education for early adolescents.

330 Children's Literature and Reading (3)

Prerequisite: Junior standing. A course designed to provide a knowledge of the various types of literature for young people, including books, magazines, comics, television, and films; criteria for evaluating and selecting material; uses of material in the classroom and home; and motivating reading for enjoyment and information, bibliotherapy, and communication.

336 Teaching Language Arts and Reading N-9 (3)

Prerequisites: Six hours of English/Communication; ED PSY 312. Involves study of methods and materials for implementing a total language arts program, including reading in the elementary school. Emphasis is placed on using the language experience approach in teaching listening, reading, spelling, handwriting, grammar, and spoken or written composition as basic skills.

341 Teaching Science in the Elementary School (3)

Prerequisites: Completion of science requirements in general education, ED FND 111, and upper-level standing. An analysis of teaching science to elementary school children with emphasis on current science education trends, science curricular materials, and strategies of instruction.

Teaching and Learning (ELE ED)**342 Teaching Remedial Mathematics (3)**

Prerequisite: ELE ED 246. Methods for diagnosing and remediating mathematical skills and concepts of the special needs learner. Course requires testing and tutoring assignments in area school districts outside of scheduled University class time.

346 Advanced Methods in Elementary School Mathematics (3)

Prerequisites: ELE ED 246 and consent of instructor. Review, evaluate, develop, and provide classroom trial of instructional components prepared for teaching mathematics. Course will develop greater depth of preparation in: elementary program content; programs for exceptional children; and curricular extensions such as transformational geometry, rational numbers, and intuitive algebra.

385 Teaching Reading in the Elementary School (3)

Prerequisites: ED PSY 312 and junior standing. Systematic study of methods for teaching elementary school reading with greatest emphasis on teaching word recognition, vocabulary, and comprehension. Ten hours of observation-participation is required.

387 Teaching Reading and Language Arts to Culturally Diverse Children (3)

Prerequisites: ED FND 111 and senior standing. Systematic study of the problems of teaching reading and related language arts in ghetto schools. Attention is given to the ways in which the selection of materials and methodology of teaching relating to inner-city children is influenced by their physical and psychological needs, their experience backgrounds, their spoken language patterns, their cultural heritage, and the sociology of their environment.

389 The Analysis and Correction of Reading Problems in the Classroom (3)

Prerequisites: ELE ED 385 or SEC ED 386, or equivalent. Study of causes of reading difficulties and procedures that may be used to analyze and correct them in the group setting. Ten hours of diagnostic tutoring is required.

390 Elementary School Student Teaching III (5)

Prerequisites: ELE ED 291 or equivalent and admission to student teaching. Clinical teaching experience in elementary school classrooms under University and school supervision with seminar included. For students who wish an additional student teaching experience.

405 Seminar (1-10)**410 Current Research in the Elementary School Curriculum (3)**

A systematic examination of research related to elementary school curriculum. Students will be expected to become effective consumers of educational research and to utilize appropriate research findings in their decision-making processes when planning instruction.

411 Curricular Issues in the Elementary School (3)

Prerequisite: ELE ED 410. Selected contemporary problems which affect elementary classroom decisions. Computer literacy values, meeting individual needs, and dealing with discipline are studied through investigative discussions, reading, and a research paper.

412 Microcomputers in Elementary Education (3)

Focuses on principles and procedures for using microcomputers for instructional and classroom management activities in the elementary classroom.

422 Curriculum Construction in Elementary Schools (3)

Prerequisite: ELE ED 410. A study of the elementary curriculum with regard to selection of objectives and content and to provisions for curricular change.

423 Curricular Implementation in the Elementary School (3)

Prerequisite: ELE ED 422. Culminating experience for curricular project in ELE ED 422. Course will include procedures and techniques for curricular design implementation in the field.

425 Elementary School Supervision (3)

Organized to study such problems in field of supervision as will meet needs of superintendents, principals, and special supervisors.

427 Supervision of Clinical Experiences in Teacher Education (3)

Prerequisite: Teaching experience and consent of instructor. A consideration of the clinical phase of the teacher education program, with special emphasis on student teaching. Examination of role responsibilities and supervisory practices. Study of professional literature for research findings, theoretical formulation, and recent developments in the field.

430 Problems of Teaching the Language Arts (3)

Procedures used in teaching integrated language arts in elementary schools.

432 Problems and Research in Elementary School Language Arts (3)

Prerequisites: ELE ED 430, ED REM 431, and six hours of English. A systematic study of research in teaching speaking, listening, written composition, handwriting, spelling, and linguistics as it focuses on the problems of teaching these skills in the elementary school. Attention is given to innovations in the field.

Teaching and Learning (ELE ED)**436 Children's Literature I: Survey and Analysis (3)**

Prerequisite: ELE ED 330 or equivalent. A survey of children's literature published in the last ten years. Special emphasis will be placed on the relationship between children's literature and contemporary issues of society. Students will experience the materials themselves rather than reading about books. In addition, students will begin to study the literary elements that make literature interesting and meaningful for children.

437 Children's Literature II: Selection and Functions (3)

Prerequisite: ELE ED 330 or equivalent. A study of literary elements that make literature interesting and meaningful for children will be completed. Further emphasis will focus on the application of trade books for children as resources in school curriculum planning. Children's Literature II may be taken either before or after Children's Literature I.

441 Problems and Research in Teaching Elementary School Science (3)

Prerequisites: Eight hours of science, ELE ED 341, and ED PSY 411. A thorough examination of research related to elementary school science instruction with particular emphasis on innovative programs. Includes methods of investigation and techniques for interpreting the professional literature.

443 Teaching Physical Science in the Elementary School (3)

Activity-oriented experiences with basic physical science concepts, laboratory skills, and techniques that are appropriate for elementary school teachers. The physical science concepts in elementary school curricula will be analyzed in depth.

444 Environmental Studies for Elementary Teachers (3)

Activity-oriented training in developing environmental awareness, field and/or laboratory skills and techniques, and the use of elementary environmental curricula. Materials and activities appropriate for one's students and locale will be developed.

445 Problems of Teaching Mathematics in the Elementary School (3)

A study of the mathematics program in the elementary school from the viewpoint of goals, content, techniques, and evaluation.

446 Curriculum and Methods of Teaching Measurement in Mathematics: Metric and Standard Systems (3)

Prerequisite: ECH ED 346 or ELE ED 246. Curricular development and implementation on reflecting recent research findings. Content, materials, methods of teaching the general topic: measurement. Applications in both the metric and standard systems.

447 Problems and Research in Teaching Elementary**School Mathematics (3)**

Prerequisite: ELE ED 445. A thorough examination of research related to recurrent problems in elementary school mathematics instruction, as well as current problems arising within modern programs. Includes methodology appropriate to investigation of such problems and techniques for assessment of the literature.

448 Diagnosis and Remediation of Disabilities in Learning Mathematics (3)

Prerequisite: ELE ED 445. Causes of mathematical disabilities. Materials and techniques for diagnoses and corrective programs for children and youth.

450 Problems of Teaching Social Studies in the Elementary School (3)

A classroom-oriented study of curricular and instructional problems encountered in social studies. Emphasis is placed upon development of materials, techniques, and resources.

452 Problems and Research in Teaching Elementary School Social Studies (3)

Prerequisite: ELE ED 450. An advanced study of pedagogical problems germane to social studies education with particular emphasis on application of research findings to the solution of classroom problems.

482 Problems and Research in Teaching Elementary School Reading (3)

Prerequisite: ELE ED 385 or equivalent. Systematic study of research as it focuses on the problems of teaching reading in the elementary school. Attention is given to innovations in the field.

484 Developmental Reading (K-13) (3)

Prerequisite: ELE ED 385 or SEC ED 386, or equivalent. Designed to update classroom teachers' skills in reading instruction. Study of basic reading instruction at all grade levels with special emphasis on current instruction programs, innovative approaches to reading instruction, basic techniques, commercial reading materials, and recent research findings which have a bearing on methodology.

486 Clinical Diagnosis and Treatment of Reading Disabilities (3)

Prerequisites: A graduate course in reading and in measurement or statistics. Etiology of specific reading disability; procedures that are used to diagnose and treat in the clinical setting.

Teaching and Learning (ELE ED)

488 Supervision of School Reading Programs (3)

Prerequisite: ELE ED 385 or SEC ED 386. Processes and techniques of developing, evaluating, and/or modifying the reading program in a school or district. The course would enable those seeking positions as consultants, coordinators, and directors of reading to conform with standards specified by the International Reading Association.

490 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.

493 Clinical Methods in Child Study I (3)

Prerequisites: ELE ED 486 and ED REM 422. Clinical experience in diagnosing learning problems, especially reading disability, in school children.

494 Clinical Methods in Child Study II (3)

Prerequisite: ELE ED 493. Clinical experience in applying remedial procedures to school children with learning problems, especially reading disability.

495 Supervision of Practicum in Clinical Reading (3)

Prerequisites: ELE ED 385 or SEC ED 385; ELE ED 486, ELE ED 493, ELE ED 494; and ED REM 422. Supervising graduate students in diagnosis and remedial process within the reading clinic.

497 Problems (1-10)

Selected problems to meet the needs of individual students.

Physical Education (PHY ED)

Prerequisites may be waived by consent of the department or the instructor.

124 Principles and Practice in First Aid and Cardiopulmonary Resuscitation (1)

The course provides theory and supervised practice in first aid and cardiopulmonary resuscitation leading to American Red Cross certification in those areas.

130 Teaching Health in the Elementary School (3)

Prerequisites: ED FND 111 and admission to the School of Education. A study of health programs in the elementary school. Emphasis is given to the teacher's responsibilities in the areas of health services, healthful school environment, and instruction in a comprehensive school health program.

132 Personal Health (3)

A study of factors that contribute to physical and mental well-being at all stages of the life cycle. Particular attention will be given to the identification and analysis of individual health behaviors.

134 Personal Physical Fitness (3)

A study of the relationship between vigorous physical activity and individual well-being. Emphasis will be placed on an individualized analysis of health fitness, resulting in a prescribed program to develop optimal levels of physical fitness, including aerobic fitness, strength, muscular endurance, flexibility, body composition, and lifetime sports considerations.

165 Physical Education Activities in the Elementary School (3)

Objectives of physical education for the elementary school child with applications of choice of activities, organization of program, theory, and practices.

190 Clinical Experience in Physical Gerontology (3)

(Same as Gerontology 190.) Early supervised experience in gerontological physical activity programming. Seminar precedes and accompanies clinical experience.

193 Clinical Experience in Youth Sport Programs (3)

Supervised clinical experience in youth sport programs. Seminar precedes and accompanies clinical experience.

204 Special Topics in Physical Education (1-3)

Prerequisite: Consent of instructor. Independent study through readings, reports, field study, or research.

220 Teaching of Skills: Movement and Rhythms (3)

Prerequisite: Junior Standing. Study of skill analysis and techniques of teaching fundamental movement skills and rhythmical activities. Emphasis will be given to biomechanical analysis of movement, application of motor learning concepts, and design and preparation of appropriate instructional experience and materials.

221 Teaching of Skills: Dance (3)

Prerequisite: Junior Standing. Study of skill analysis and techniques of teaching dance in school physical education programs. Emphasis will be given to biomechanical analysis of movement, application of motor learning concepts, and design and preparation of appropriate instructional experience and materials. Dance forms studied will be folk, square, ballroom, modern, jazz and creative.

222 Teaching of Skills: Grades PK-4 (4)

Prerequisite: Junior Standing. Study of skill analysis and techniques of teaching developmental games, education gymnastics and perceptual-motor activities. Emphasis will be given to biomechanical analysis of movement, application of motor learning concepts, and design and preparation of appropriate instructional experience and materials.

Teaching and Learning (PHY ED)

223 Teaching of Skills: Grades 5-9 (4)

Prerequisite: Junior Standing. Study of skill analysis and techniques of teaching track and field, outdoor education, soccer, softball, flag football, basketball, and volleyball. Emphasis will be given to biomechanical analysis of movement, application of motor learning concepts, and design and preparation of appropriate instructional experience and materials.

224 Teaching of Skills: Grades 9-12 (4)

Prerequisite: Junior Standing. Study of skill analysis and techniques of teaching racquet sports, aquatics, bowling, golf, archery and team handball. Emphasis will be given to biomechanical analysis of movement, application of motor learning concepts, and design and preparation of appropriate instructional experience and materials.

234 Teaching Wellness and Health-Related Fitness (4)

Prerequisite: PHYED 280 or the equivalent, or consent of the instructor. Study and techniques of teaching wellness and health-related physical fitness concepts across the life span. Evaluation, interpretation, and application of wellness concepts to the individual and groups.

261 Physical Activity for the Exceptional Learner (2)

Prerequisites: SPC ED 311 and SPC ED 313. A study of the special physical activity and exercise needs, interests, and problems of the exceptional learner, with considerable emphasis on the development of methods and competencies in modifying physical activities.

267 Performance Analysis in Physical Education (3)

Prerequisite: College-Level Mathematics. A study of quantitative and qualitative approaches, processes and instruments used in assessing student progress in physical education activities. Emphasis will be given to the application of statistical methods to the results of evaluations of human motor performance and the interpretation of those results, as well as to the construction and administration of measurement instruments.

268 Curriculum and Methods of Teaching Physical Education (3)

Prerequisite: PHY ED 101 or SEC ED 213. Study of the scope and sequence of the school program in physical education with emphasis on planning processes, content selection, management procedures, instructional strategies, and program assessment.

275 Psychological Aspects of Physical Education (3)

Prerequisites: Psychology 3. A study of the following aspects of psychology as they influence performance in sport and physical activity: learning, retention, transfer, practice, feedback, motivation, anxiety, perception, motor control, social facilitation, cohesion, leadership, and reinforcement.

276 Sociocultural Aspects of Physical Education and Sport (2)

Prerequisite: Junior standing. Study of the theoretical, methodological, experimental, and applied foundations of sport and physical activity programs in society and the schools. Applied issues included cultural, political, economical, legal, and educational aspects of sport and physical activity programs.

277 Historical & Philosophical Foundations of Physical Education and Sport (2)

Prerequisite: Junior Standing. A study of the history of physical education and sport programs, philosophical influences and issues related to the programs and applications of the knowledge base to current programs.

280 Human Anatomy and Physiology (5)

Prerequisite: Biology 1 and Biology 3, or consent of instructor. Study of the basic aspects of human anatomy and physiology and their relationship to concepts in sport and physical activity. Two hours of laboratory per week.

282 Physical Growth and Motor Development (3)

Prerequisite: Psychology 270 or Psychology 271. An examination of the physical growth and aging, and motor development of the human being over the life span. Emphasis on evaluative tools, techniques, and studies of research findings. Laboratory field experience for observing individuals. Attention is directed toward acquisition of basic skills, perceptual-motor development, fitness development, and age-related changes in information processing. A required course for physical education majors; an elective course for early childhood, special, and elementary education majors.

283 Kinesiology (3)

Prerequisite: PHY ED 280. Study of the biomechanics of human motion with particular application to performance in sport activities.

284 Physiology of Human Exercise (3)

Prerequisite: PHY ED 280. Study of the physiological effects of human exercise, training, and sport activities upon the human body; understanding and evaluation of physical fitness components, with consideration given also to areas including work, fatigue, nutrition, age, sex, and environment.

Teaching and Learning (PHYS ED)**285 Sports Medicine (3)**

Prerequisite: PHY ED 280 or equivalent. A study of the prevention and care of athletic/sport participation injuries. Emphasis is given to proper conditioning and training of the sport participant and on emergency responses, including CPR certification.

290 Student Teaching in Physical Education: PK-5 (5)

Prerequisites: Admission to Student Teaching. Clinical teaching experience in physical education settings in the schools under University and school supervision. Required for all majors in physical education receiving certification in Physical Education, Grades PK-5.

291 Student Teaching in Physical Education 5-9 (5)

Prerequisite: Admission to Student Teaching. Clinical teaching experience in physical education settings in the schools under University and school supervision. Required for all majors in Physical Education, Grades 5-9.

292 Student Teaching in Physical Education: 9-12 (5)

Prerequisite: Admission to Student Teaching. Clinical teaching experience in physical education settings in the schools under University and school supervision. Required for all majors in physical education receiving certification in Physical Education, Grades 9-12.

312 Management of Sports Programs (3)

Prerequisite: Consent of instructor. A study of administrative theory, roles, responsibilities, and functions in the management of sports programs.

330 Prescribing Physical Activity (3)

(Same as Gerontology 330.) Prerequisite: PHY ED 280 or consent of instructor. Prescription of physical activity for individualized and group programming based upon physical fitness assessment. Health, nutrition, age, physical fitness, and testing aspects are considered in developing specialized exercise programming based upon current physiological and biomechanical research.

380 Nutrition for Human Performance (3)

A study of human nutrition and its relationship to human performance. Consideration is given to nutrients—function, food source, health concerns and implications, and energy intake and expenditure. Special consideration is given to the following: body composition including weight gain and loss, ergogenic aids, competitive athletes, older adults, children and teens, pregnant women, disease risk, fluid and electrolyte balance, and specific sport activities.

390 Student Teaching in Physical Education III (5)

Prerequisites: PHY ED 291 or equivalent and admission to student teaching. Clinical teaching experience in physical education settings in the school under University and school supervision with seminar included. For students who wish an additional student teaching experience.

392 Internship in Physical Gerontology (1-10)

Prerequisites: PHY ED 190 or consent of instructor. (Same as Gerontology 392) Supervised clinical experience in selected gerontological settings as a physical education practitioner under the supervision of university and program professionals. Internship may include two or more separate experiences completed concurrently or sequentially and involve planning of instruction, participant and program evaluation, research, and related activities.

462 The Physical Education Curriculum (3)

Prerequisite: Consent of instructor. A study of current practices, problems, trends, and research involved in the analysis and development of the physical education curriculum.

464 Analysis of Teaching in Physical Education (3)

Prerequisite: Consent of instructor. A study of trends and research relating to teaching methodology, teacher effectiveness, and supervision of instruction in physical education. Emphasis will be given to the application of research on teacher effectiveness in the instructional process in physical education.

474 Psychological Dynamics of Sport Performance (3)

Prerequisite: PHY ED 275 or consent of instructor. Application of specific principles of social psychology to the teaching of physical education and sport and of mental aspects of peak physical performance. Explores the techniques of improving team and individual performance in interscholastic and elite competition through sport psychology. Attention is given to motivation, competitive anxiety, attitude, aggression, team cohesion and leadership, exercise adherence, personality, individual differences, and gender roles as they pertain to sport performance.

475 Motor Learning and Control (3)

Prerequisite: PHY ED 275 or consent of instructor. Application of specific principles of learning and the control of movement to the teaching of motor skills in physical education and sport. Surveys neurologic systems involved in perception and motor performance. Explores theoretical perspectives, including open versus closed loop control, schema theory, information processing, and dynamical systems theory. Attention is given to efficiency of learning skills by accommodating transfer of training, utilizing feedback, manipulating practice schedules, and promoting retention.

Teaching and Learning (PHY ED)**476 Social Inquiry of Sport (3)**

Prerequisite: PHY ED 276 or consent of instructor. A study of basic social processes in sport, such as socialization, social facilitation, and assimilation.

478 Problems and Research in Physical Education (3)

A study of potential research problems and research processes in specific physical education subdisciplines. A research project will be completed in the student's physical education subdiscipline interest area.

482 Life Span Perceptual and Motor Development (3)

Prerequisite: PHY ED 282 or consent of instructor. A study of sensory and perceptual development and change, and the age-related qualitative and quantitative changes in motor skill. Both current theory and current empirical findings are stressed. Attention is given to methods of structuring learning environments to maximize development. Study is from a life span perspective.

483 Biomechanics of Sport Techniques (3)

Prerequisite: PHY ED 283 or consent of instructor. A study of the biomechanical concepts important to analysis of techniques used in selected sports. Explores recent research findings on efficient sports techniques. Provides experience in the analysis of skill performance.

484 Physiological Bases of Physical Performance (3)

Prerequisites: PHY ED 280 and PHY ED 284 or consent of instructor. Physiological bases and contemporary trends in the study of human performance and exercise stress; will analyze research literature and study experimental strategies with the focus upon application to teaching and coaching.

485 Theory of Exercise and Cardiovascular Disease Risk Factor Management (3)

Prerequisite: Completion of PHY ED 484 or equivalent. A study of the effects of exercise on the basic epidemiology, physiology, and management of unavoidable and avoidable cardiovascular risk factors. Special attention will be given to the examination of the effect of exercise in the management of cardiovascular disease risk.

490 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.

497 Problems (1-10)

Prerequisite: Consent of instructor. Selected problems to meet the needs of individual students.

Secondary Education (SEC ED)**162 Computer Keyboarding and Formatting (3)**

Prerequisite: Intermediate typewriting or equivalent. Review of keyboarding techniques and skills; development of speed and accuracy; instruction in the preparation of business and professional papers and forms with emphasis on formatting and information processing skills.

204 Seminar: Business Education Student Teaching (1)

Prerequisites: Completion of all required courses in major and/or certification emphasis area. To be taken concurrently with student teaching. Application of theory, methods, and techniques to the teaching of business subjects in grades 7-12.

208 Mathematics Teaching Intern Seminar (1)

Prerequisite: Concurrent enrollment in SEC ED 290. A seminar in the integration of mathematics curricula, educational philosophy, teaching strategies, and instructional technology in the classroom setting. To be taken concurrently with Secondary Student Teaching, SEC ED 290.

213 Techniques of Secondary School Teaching and Field Experience (4)

Prerequisites: ED FND 111 and admission to the Teacher Education Program. Activities and interaction of teachers and students in secondary schools. Included also is an analysis of teaching, learning, and field observations in secondary classrooms. Recommended that SEC ED 213 be taken during the first semester of the junior year prior to special methods courses.

232 The Curriculum and Methods of Teaching English (3)

(Same as English 262.) Prerequisites: SEC ED 213 and a near major in the subject matter. A study of the scope and sequence of the English courses in the school curriculum with emphasis on the selection and organization of materials and methods of instruction and evaluation. Includes field experiences. The course prepares students for reflective teaching by relating course readings to field experiences and theory to practice. To be taken prior to student teaching. This course must be completed in residence.

240 Curriculum and Methods of Teaching Physical Sciences (3)

(Same as Chemistry 280 and Physics 280.) Prerequisite: SEC ED 213 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.

Teaching and Learning (SEC ED)**246 The Curriculum and Methods of Teaching Mathematics (3)**

Prerequisites: SEC ED 213 and a near major in the subject matter. A study of the scope and sequence of the mathematics 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 mathematics. To be taken prior to student teaching. This course must be completed in residence.

255 The Curriculum and Methods of Teaching History and Social Studies (3)

(Same as History 255.) Prerequisite: Junior standing and SEC ED 213. A study of the scope and sequence of history and social studies courses in the school curriculum, with emphasis on the selection and organization of materials and methods of instruction and evaluation. Attention is directed also toward learning the techniques and research tools of the scholar in the fields of history and social studies. May not count toward history hours required for history major. Must be completed prior to student teaching. This course must be completed in residence.

256 Social Studies Teaching Intern Seminar (1)

(Same as History 256.) Prerequisite: Must be enrolled concurrently in student teaching. Addresses the application of educational philosophy, social studies curriculum, teaching strategies, and instructional technology in the classroom setting. Offered concurrently with Secondary School Student Teaching, SEC ED 290.

257 United States History for the Secondary Classroom (3)

Prerequisite: Sec Ed 213, Graduate standing or consent of instructor. (Same as History 257.) Adapts the themes and subject matter of American history 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 history, on expanding bibliography, and on choosing methods of inquiry for use in an interactive classroom. Either History/Sec Ed 257 or 258 must be taken the same semester as History/Sec Ed 255 except with special consent of the Social Studies Coordinator. Cannot be counted towards the minimum 38-hour history major requirement, but can be counted towards the 45-hour maximum and for Social Studies Certification.

258 World History for the Secondary Classroom (3)

Prerequisite: Sec Ed 213, Graduate standing, or consent of instructor. (Same as History 258). Adapts the themes and subject matter of World history 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 World history, on expanding bibliography, and on choosing methods of inquiry for use in an interactive classroom. Either History/Sec Ed 257 or 258 must be taken the same semester as History/Sec Ed 255 except with special consent of the Social Studies Coordinator. Cannot be counted towards the minimum 38-hour history major requirement, but can be counted towards the 45-hour maximum and for the Social Studies Certification.

261 Methods of Teaching Keyboarding and Formatting (3)

Prerequisite: Intermediate Typewriting or equivalent. Instruction in the methods and techniques used to teach keyboarding and document formatting.

263 Methods of Teaching Accounting (3)

Prerequisites: BA 140, BA 145, or equivalent. Methods and techniques of teaching data processing and accounting in the secondary schools.

264 Methods of Teaching Basic Business Subjects (3)

Prerequisites: Econ 51 or equivalent, BA 206 and/or BA 256. Methods and techniques of teaching basic business, business law, economics, consumer economics, and business principles and management in the secondary school curriculum.

265 Secretarial Practice (3)

Prerequisites: SEC ED 162 and consent of instructor. Study of secretarial office procedures; office-style dictation for transcription; word processing; office machines; records management.

267 The Secondary Business Curriculum (3)

Prerequisite: ED FND 111 or equivalent or consent of instructor. Study of the scope and sequence of business education courses in the high school curriculum. Attention is directed toward the history of business education, curricular change, standards, evaluation, and research in the field of business education.

270 English Teaching Intern Seminar (1)

(Same as English 270.) Prerequisite: Concurrent enrollment in SEC ED 290. A seminar in the integration of English curricula, educational philosophy, teaching strategies, and instructional technology in the classroom setting. To be taken concurrently with Secondary School Student Teaching, SEC ED 290.

Teaching and Learning (SEC ED)**273 The Curriculum and Methods of Teaching Art (3)**

Prerequisites: SEC ED 213 and a near major in the subject matter. A study of the scope and sequence of art 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 art. To be taken concurrently with student teaching. This course must be completed in residence.

274 Curriculum and Methods of Teaching Foreign Language (3)

(Same as FLL 264.) Prerequisites: SEC ED 213 and passing the departmental language skill test. A study of the scope and sequence of the foreign language 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 foreign language. To be taken prior to student teaching. This course must be completed in residence.

275 Philosophic and Practical Foundations of the Secondary Music Education Curriculum (1)

(Same as Music 267.) Prerequisites: Music 131, Music 257/ELE ED 277, and ED FND 111; concurrent registration in Music 261, Music 268/SEC ED 276 or Music 269/SEC ED 277 and Music 270/SEC ED 278 or Music 271/SEC ED 279. For the music education major. A study of the secondary school music program: curricular objectives, philosophy, and general administrative procedures common to all secondary music classes. This course must be completed in residence.

276 Curriculum and Methods of Teaching Instrumental Music I (2)

(Same as Music 268.) Prerequisites: Music 131, 145, 151, 161, ED FND 111, two of the following: Music 25, 26, 27, 28. Concurrent registration in Music 257/ELE ED 277. A study of the teaching techniques, materials, curriculum, and organization of the beginning instrumental music education program. Topics include student recruitment, the elementary band/orchestra, small group instruction, jazz ensemble, and marching band. This course must be completed in residence.

277 Curriculum and Methods of Teaching Middle School/Junior High School General Music (2)

Prerequisites: Music 131, Music 257/ELE ED 277, and ED FND 111. (Same as Music 269.) concurrent registration in Music 267/SEC ED 275 and Music 271/SEC ED 279. For the music education major. A study of the middle school/ junior high school general music program emphasizing a conceptually based curriculum, objectives, methodologies, materials, innovations, classroom organization, and management. This course must be completed in residence.

278 Curriculum and Methods of Teaching Instrumental Music II (2)

Prerequisites: Music 131, 152a, 162, Music 257/ELE ED 277, Music 268/SEC ED 276, ED FND 111, three of the following: Music 25, 26, 27, 28. (Same as Music 270.) Concurrent registration in Music 267/SEC ED 275. A continuation of Music 268/SEC ED 276. Topics include large group rehearsal techniques, program development, administrative procedures, and evaluation. This course must be completed in residence.

279 Curriculum and Methods of Teaching Secondary Choral Music (2)

(Same as Music 271.) Prerequisites: Music 131, Music 257/ELE ED 277, and ED FND 111; concurrent registration in Music 261, Music 267/SEC ED 275, Music 269/SEC ED 277. For the music education major. A study of the secondary school choral music program: curriculum, methods, teaching techniques, organization, and administrative procedures for choral performance classes. This course must be completed in residence.

285 Curriculum and Methods of Teaching Life Sciences (4)

(Same as Biology 285.) Prerequisites: SEC ED 213 and a near major in biology. A study of the scope and sequence of the life science courses in the school curriculum, with emphasis on the selection and organization of materials and methods of instruction and evaluation. The analysis of teaching/learning and field experience observations in secondary school classrooms will be integrated into classroom activities and discussions. This course must be completed in residence.

286 Laboratory in Teaching Life Sciences (2)

(Same as Biology 286.) Prerequisite: SEC ED 213. Discussion, development, utilization, and evaluation of equipment, materials, and techniques applicable to instruction in the life sciences. Must be taken concurrently with Biology 285/SEC ED 285.

290 Secondary School Student Teaching (12)

Prerequisites: SEC ED 213 and admission to student teaching. Clinical teaching experience in secondary school classrooms under University and school supervision. To be taken after appropriate curriculum and methods course.

293 Student Teaching in Music Education, K-6 (5)

Prerequisites: ELE ED 210, SEC ED 213, Music 257/ELE ED 277, Music 267/SEC ED 275, Music 118, Music 268/SEC ED 276, Music 270/SEC ED 278 (instrumental emphasis majors); Music 120, Music 269/SEC ED 277, Music 271/SEC ED 279 (Choral/vocal emphasis majors); and admission to student teaching. Must be taken "in block" with SEC ED 294 and must immediately precede it in the semester. Clinical teaching experience in music education settings in the schools under University and school supervision with seminar included. Required of all majors in music education.

Teaching and Learning (SEC ED)**294 Student Teaching in Music Education, 7-12 (5)**

Prerequisite: SEC ED 293. Must be taken "in block" with SEC ED 293 and must immediately follow it in the semester. Clinical teaching experience in music education settings in the schools under University and school supervision with seminar included. Assignments will be in different settings from those of SEC ED 293. Required of all majors in music education.

305 Writing for Teachers (3)

(Same as English 305.) Prerequisite: English 210 or a comparable course in advanced composition. Designed for prospective as well as in-service teachers, the course includes: (1) writing—short papers to be shared in workshop groups; (2) reading—current theory and research on writing and the implications for teachers; (3) teaching—classroom activities that foster growth in writing.

312 Secondary School Curriculum (3)

Prerequisite: SEC ED 213. Sources, scope, and organization of the curriculum, modern trends, and methods of investigation.

315 The Middle Level School (3)

Prerequisites: ED FND 111 or equivalent and admission to Teacher Education Program. An in-depth study of the philosophical and historical bases of the goals and organization of middle level schools, including a review of research as the bases for current trends and practices.

360 Administration and Supervision of Office Personnel (3)

Prerequisite: Consent of instructor. An advanced course in office administration and supervision designed to meet the needs of business personnel involved in administrative office management work; emphasis on updating leadership and human relations skills, organizing, planning, controlling office services, and business data processing systems.

361 Information Processing: Applications and Techniques of Teaching (3)

Prerequisite: SEC ED 162, SEC ED 261, or equivalent, or consent of instructor. The course will focus on the needs of preservice and in-service teachers who instruct courses in information processing. Special emphasis placed on organizing and managing an information processing lab, software applications, integration of information processing concepts into existing courses, teaching strategies, and current information processing research.

362 Teaching Alpha Writing Systems: Theory and Application (3)

Prerequisite: Consent of instructor. A study of alphabetic shorthand writing systems. Instruction in the theory and application of alpha writing systems. Emphasis on teaching techniques, learning activities, evaluation, testing, and current research.

367 Methods of Teaching Desktop Publishing Concepts and Procedures (3)

Prerequisite: SEC ED 162; SEC ED 261 or consent of instructor. This course will focus on the integration of text and graphics using graphic design and electronic page assembly with a microcomputer-based system. Special emphasis placed on Desktop Publishing concepts, methods, and techniques. Attention is directed toward teaching techniques, learning activities, evaluation and current research.

374 Foreign Language Teaching Seminar (2)

(Same as FLL 364.) Prerequisite: Concurrent enrollment in SEC ED 290 or consent of instructor. A practicum course in the teaching of foreign languages. Review and explanation of drills, dialogues, and a variety of classroom techniques, oral and written. A continuation of SEC ED 274, Curriculum and Methods, with an emphasis on specific practical skills. To be taken concurrently with SEC ED 290, Student Teaching.

386 Teaching Reading in Secondary School Content Areas (3)

Prerequisite: ED FND 111 or equivalent. Methods and materials for improving reading and study strategies in content area classes in upper grades.

391 Field Study in Secondary Education (1-10)

Identification of specific problems in the area of secondary education. Course is conducted as a field study in the public schools. A maximum of eight credit hours may be applied toward an advanced degree contingent upon adviser approval.

393 Student Teaching in Music Education, K-12 (5)

Prerequisite: SEC ED 294 or equivalent and admission to student teaching. Clinical teaching experience in music education settings in the schools under University and school supervision with seminar included. For students who wish an additional student teaching experience.

399 Science Teaching Intern Seminar (3)

(Same as Biology 399.) Prerequisites: SEC ED 285 and SEC ED 286. Addresses the application of educational philosophy, science curriculum, teaching strategies, and instructional technology in the classroom setting. Offered concurrently with Secondary School Student Teaching, SEC ED 290.

404 Seminar (1-10)

Teaching and Learning (SEC ED)**413 Secondary Teaching with Microcomputers (3)**

Prerequisite: EDUC 301 or consent of instructor. A course designed for teachers, department heads, and school administrators. Research and theory on microcomputer-assisted instruction as a teaching method in the secondary schools will be presented. Both hardware and software suitable for microcomputers will be used and analyzed.

414 Teaching the Gifted/Talented Student in Secondary School (3)

A survey of research and theory on teaching the gifted/talented student in secondary school. Ways to identify the gifted/talented with emphasis on teaching the gifted/talented in both heterogenous and homogenous secondary classrooms. Models of gifted/talented programs in a school setting.

415 The Secondary School Curriculum (3)

For secondary school principals, teachers, and superintendents. Present methods in curricular change and methods of curricular investigation.

416 Curriculum Construction for Secondary Schools (3)

Prerequisite: SEC ED 415 or consent of instructor. Designed for those engaged in curriculum revision work and construction of new secondary school courses.

420 The Improvement of Secondary School Teaching (3)

For secondary school teachers, principals, and superintendents with considerable training in education and experience in teaching. Recent developments in secondary school teaching.

422 Individualizing Instruction in Secondary Schools (3)

This course surveys a variety of theoretical models and research findings related to individualized instruction in the secondary school and is designed for teaching and administrative personnel.

425 Secondary School Supervision (3)

Methods of improving instruction in junior and senior high schools.

427 Supervision of Clinical Experiences in Teacher Education (3)

Prerequisites: Teaching experience and consent of instructor. A consideration of the clinical phase of the teacher education program, with special emphasis on student teaching. Examination of role responsibilities and supervisory practices. Study of professional literature for research findings, theoretical formulations, and recent developments in the field.

429 The Department Head (3)

This course emphasizes the role of the department chairperson as an educational leader. Theoretical concepts are related to sound practice. The potential for the job is discussed, as well as the roadblocks to successful execution. Appropriate for practicing department chairpersons, school administrators, or classroom teachers interested in acquainting themselves with this position.

430 Problems of Teaching English in the Secondary School (3)

A review of recent developments in the teaching of secondary English. Special attention is given to research involving instructional problems in urban and suburban schools. The course is designed for teachers, department heads, and supervisors in secondary English programs.

436 Gateway Writing Project (1-6)

(Same as English 490.) An intensive course in the writing process and the writing curriculum, designed for experienced teachers. Readings of current theory and research will be related to participants' experience as writers and as teachers. Topics may vary. May be repeated for credit. No more than six hours may be applied toward the M.Ed. Counts toward the Certificate in Writing.

452 Problems of Teaching Social Studies in the Secondary Schools (3)

A review of recent developments in the teaching of secondary school social studies. Special attention is given to research and scholarship involving instructional and curricular problems, especially in the metropolitan St. Louis area. Emphasis is placed upon development of effective materials, techniques, and resources. The course is designed primarily for teachers and supervisors in secondary school social studies programs.

486 Techniques in Teaching Biology for Graduate Students (2)

(Same as Biology 486.) Prerequisites: Graduate standing and teaching assignment. Discussion and practice of techniques specific to instruction in the life sciences. Consideration will be given to teaching strategies, curriculum design, evaluation, instrumentation, and student teacher interactions. Recommended for all graduate students with teaching assistantships.

490 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.

497 Problems (1-10)

Teaching and Learning (SPC ED)

192 Field Experience in Special Education (3)

Intensive early field experience involving on-site observation and limited participation with exceptional individuals in schools and/or other educational agencies. This course is open to all students.

242 Characteristics of Learning Disabilities (3)

A study of the divergent characteristics of children with perceptual impairments. This course consists of fifteen half-hour tapes, designed to offer instruction at an undergraduate level on the nature of children with learning disabilities, and the roles of educators, parents, and auxiliary personnel in diagnosis and remediation. Historical perspectives and future trends will be explored. The tapes are followed by student contact with the instructor, for discussion, work evaluation, and testing.

290 Student Teaching in Special Education I (5)

Prerequisites: SPC ED 313, SPC ED 320, SPC ED 332 and admission to student teaching. Must be taken with SPC ED 291 and must immediately precede SPC ED 291 in the semester. Clinical teaching experience in special education classrooms in schools under University and school supervision. Required of all majors in special education.

291 Student Teaching in Special Education II (5)

Prerequisite: SPC ED 290. Must be taken with SPC ED 290, and must immediately follow SPC ED 290 in the semester. Clinical teaching in special education classrooms in schools under University and school supervision. Assignments will be in different school districts, buildings, serving families of different socioeconomic and cultural backgrounds, and at different grade levels from those of the SPC ED 290 assignments. Required of all majors in special education.

311 Sex Education for Exceptional Individuals (3)

Prerequisite: Consent of instructor. Course is designed to give teachers a thorough knowledge and understanding of the issues, problems, teaching techniques, and the current curricular resources of teaching sex education to handicapped individuals.

313 The Psychology and Education of Exceptional Individuals (3)

Prerequisite: Psychology 270 or Psychology 271 or equivalent. The psychology and education of individuals with special problems and/or abilities. Survey of theories and strategies for the learning-teaching process and of sources of assistance to educators and parents. Required in certification programs.

315 Speech and Language Problems of Exceptional Children (3)

Prerequisites: ED FND 111, SPC ED 313, and admission to the School of Education. Study of the problems associated with speech and language development and the techniques employed by classroom teachers to lessen these problems for children. Required for all majors in special education.

320 Behavior Management (3)

Prerequisites: SPC ED 313 and an appropriate introductory course in the special education area of concentration. An in-depth exploration of various behavior control techniques that are particularly applicable to exceptional children. Students will be required to conduct at least one behavior modification project with exceptional children.

322 Teaching Mainstreamed Students (3)

Prerequisite: SPC ED 313 or SPC ED 412, or equivalent. The course is designed to assist regular classroom teachers to better understand the nature and needs of handicapped students who are likely to receive much of their daily instruction in the regular classroom. Regular teachers' roles and responsibilities, teaching strategies, and adjustment options in integrating handicapped students will be considered.

330 Introduction to Mental Retardation and Severe Handicapped (3)

Prerequisite: SPC ED 313. An introductory course describing characteristics, classification, and causes of mental retardation and severe handicapped.

332 Education of the Mentally Retarded (3)

Prerequisites: ED FND 111, SPC ED 313, and SPC ED 330. Methods and techniques of use in the education of mentally retarded children. Required of all who are preparing for certification in special education for the mentally retarded.

342 Career Education for the Special Needs Individual (3)

Prerequisite: Consent of instructor. This course is intended to provide information to teachers and other personnel charged with the responsibility of delivering career development services to special needs clientele. Topics including designing a K-12 career education curricula, techniques of improving job readiness for the unemployed and underemployed, and ways to utilize community employment resources for the handicapped.

345 Introduction to Emotional Disturbances and Learning Disabilities (3)

Prerequisite: SPC ED 313. A comparative approach to these two areas of specialization regarding their history, etiologies, definition, prevalence, and service delivery systems.

Teaching and Learning (SPC ED)**347 Teaching in the Learning Disabilities Classroom (3)**

Prerequisites: SPC ED 313 and SPC ED 320. An application of the instructional techniques to be utilized with learning disabled students. Instructional techniques, appraisal for instruction, interdisciplinary team work, parental involvement, individualized education plans, and classroom techniques will be presented in this class.

350 Instructional Techniques for the Emotionally Disturbed Student (3)

Prerequisites: SPC ED 313, SPC ED 320, and SPC ED 345. A course designed to instruct students in the management and instructional strategies necessary to educate children with emotional disturbances.

370 Sensory-Motor Development of the Severely Handicapped (3)

Prerequisite: SPC ED 330 or equivalent or consent of instructor. An examination of basic sensory-motor development and associated disorders to enable teachers to work more effectively with occupational and physical therapists. Basic techniques used by therapists are presented together with an exploration of the teacher's role regarding sensory-motor programming. Required for certification for teaching individuals with severe handicaps.

371 Methods and Curricula for Severely Handicapped (3)

Prerequisite: SPC ED 370 or consent of instructor. This course begins with the application of the clinical teaching model to the severely handicapped population regarding objectives, training methods, and program process monitoring. It also includes critical analysis of existing curricula and methods of classroom or living unit organization. Required for certification in Severe Handicapped.

372 Screening and Diagnosis of the Developmentally Delayed (3)

Prerequisites: ED REM 310 or equivalent and SPC ED 313. This course addresses the content, techniques, and special problems related to the assessment of handicapped individuals in the birth-to-five developmental range. Students gain experience in construction, administration, and interpretation of assessment tools used with low functioning handicapped individuals. Required for certification in Severe Handicapped and Early Childhood-Special Education.

382 An Introduction to Gifted Children (3)

Prerequisite: SPC ED 313. This course provides an introduction to gifted children. Their characteristics, cognitive abilities, special abilities, and creativity will be reviewed. Current problems, research, and issues concerning the gifted are covered.

384 The Education of Gifted Children (3)

Prerequisite: SPC ED 313. This course deals with methods, techniques, and curricular modifications necessary for the effective education of gifted children.

390 Student Teaching in Special Education III (5)

Prerequisites: SPC ED 291 or equivalent and admission to student teaching. Clinical teaching experience in special education classrooms in schools under University and school supervision with seminar included. For students who wish an additional student teaching experience.

412 Psychology of Exceptional Children (3)

An in-depth analysis of the unique psychological problems of exceptional children and youth. Current psychological theories and research emphasized.

413 Organizational Foundations for Special Education (3)

Prerequisite: SPC ED 313 or SPC ED 412. A study of organizational issues in special education and their implications for practices and procedures. Specific attention will be given to special education delivery systems, compliance standards, funding sources, and regulatory standards.

416 Current Research in Psychology of Exceptional Children (3)

Prerequisite: Permission of instructor/adviser. A study of current issues, trends, and major research in special education. Areas of investigation shall center around major developments in exceptionalities, situations relative to programming projected needs, and considerations and utilization of investigation of the exceptional individual. Graduate students should have experience or an undergraduate background in exceptionalities prior to admission to this course.

421 Prescriptive Teaching of Exceptional Children (3)

Prerequisite: SPC ED 412. Course will instruct teachers on how to develop and implement prescriptive educational programs for exceptional children and adolescents based upon available information. Students will become familiar with prescriptive systems which will enable them to utilize sources of information for remedial and developmental needs.

430 Theories and Practice in Mental Retardation (3)

Prerequisite: Permission of instructor. An advanced study of the pedagogical and theoretical problems germane to the area of mental retardation with particular emphasis on the application of current research findings to the solution of these problems.

431 Education of Individuals with Mental Retardation (3)

Prerequisite: SPC ED 430. A systematic study of modern educational procedures for students with mental retardation. Methods and materials for educating students with mental retardation are stressed. Teaching and Learning (SPC ED)

Teaching and Learning (SPC ED)

462 Introduction to Early Childhood Special Education (3)

Prerequisite: SPC ED 412. A study of issues and concepts central to special education for the young handicapped child. Focus will be placed upon program models, screening and assessment procedures, and curriculum concepts. An ecological approach to special education will be emphasized.

463 Curriculum, Methods, and Materials for Early Childhood Special Education (3)

Prerequisites: SPC ED 412 and SPC ED 462. In-depth study of integrated assessment-based curriculum development for preschool handicapped children. Emphasis will be on individualized educational planning and implementation.

485 Community Counseling Practicum (3)

Prerequisite: CNS ED 410 and 411 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.

486 Community Counseling Field Experience I (3)

Prerequisite: CNS ED 485 Community Counseling and Consent of instructor. A 300-hour closely supervised field experience under the direction of a graduate faculty member. An appropriate level of competence and evidence of growth in the professional counselor role must be demonstrated by the student. The field placement will include on-campus group supervision, off campus site supervision, and on-site counseling activity.

487 Community Counseling Field Experience II (3)

Prerequisite: CNS ED 486 and Consent of instructor. A 300-hour advanced closely supervised field experience under the direction of a graduate faculty member. The course will build upon and extend the Community Counseling Field Experience I. It is expected that the student will demonstrate counseling competencies and skills and ethical practice. The field experience will include on-campus-group supervision, off-campus site supervision, and on-site counseling activity.

490 Internship (1-10)

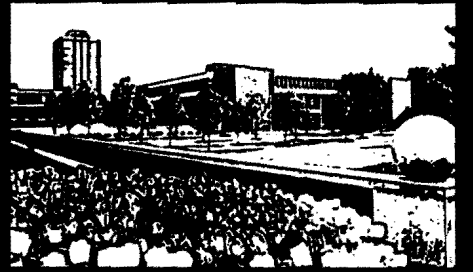
Prerequisite: Consent of instructor. Closely supervised experience in a field setting under the direction of a graduate faculty member. An appropriate level of competence and evidence of growth in the professional role must be demonstrated by the intern. The internship will include planning, research, evaluation, and related professional activities.

492 Practicum in Special Education (3-6)

Prerequisite: Two courses in area of concentration. A supervised internship in educating exceptional children in a school setting or other appropriate site.

497 Problems (1-10)

Prerequisite: SPC ED 412 or equivalent. Selected problems on student-learner exceptionalities for individuals at the postbaccalaureate level.



Evening College

Administration

Everette E. Nance, Dean
Ed.D., Western Michigan University

General Information

The Evening College provides undergraduate degree programs for students who, for various reasons, choose to attend evening classes. Twenty-six degree programs are offered through the Evening College. Courses needed as prerequisites for graduate programs are available. In addition, persons who want to maintain their professional competence or broaden their educational background without pursuing degree work will find a broad array of courses which may be taken for credit or on an audit basis.

Recognizing the value of continuing education and career advancement, many St. Louis institutions, businesses, and industries encourage their employees to avail themselves of the educational opportunities offered by the Evening College. The Veterans Administration has approved either full-time or part-time study for educational benefits.

Since most Evening College students are employed full time, they normally carry less than a full academic load. To enable students to carry as many courses as they wish, the Evening College schedules classes after 5:00 p.m. and limited offerings on Saturday mornings. Classes and degree programs are conducted according to the same standards as the day program.

Course Areas The Evening College offers courses in 29 academic areas: anthropology, art, astronomy, biology, business administration, chemistry, clinical laboratory science, communication, computer science, criminology and criminal justice, cytotechnology, economics, education, English, French, geography, geology, German, history, mathematics, music, philosophy, physics, political science, psychology, sociology, social work, and Spanish.

Academic Advising and Program Planning New students are encouraged to consult with an academic adviser to develop programs appropriate to their needs. Appointments may be made by calling the Evening College, 516-5161.

Transfer students or students with 40 or more credit hours who wish to be assigned advisers and to graduate from the Evening College must file a Declaration-of-Major form.

Facilities The facilities of the University of Missouri-St. Louis, including the computer center, library, laboratories, cafeteria, cashiers, bookstore, financial aid, health service, placement service, and admissions office, are open in the evening. Evening College students are also eligible to participate in any of the University sports programs that interest them. The

athletic facilities of the Mark Twain Building are available.

Alpha Sigma Lambda The Beta Epsilon Chapter of Alpha Sigma Lambda is a national honorary scholastic society for Evening College students. To be eligible for membership, a student must have completed at least four semesters of college or university work, completed a minimum of 30 semester hours in the Evening College, have a cumulative grade point average of 3.2, and be enrolled in the Evening College.

Degree Programs

General Education Requirements All candidates for a degree through the Evening College must meet the University general education requirements.

Bachelor of Arts Majors available for the B.A. degree are biology, chemistry, communication, economics, English, history, mathematics, physics, political science, psychology, and sociology. For further information, consult the appropriate departmental section of the College of Arts and Sciences portion of this *Bulletin*.

Bachelor of Science The B.S. degree is available in applied mathematics, biology, chemistry, computer science, criminology and criminal justice, economics, physics, and sociology. For further information, consult the appropriate departmental section of the College of Arts and Sciences portion of this *Bulletin*.

Specialized Bachelor's Degrees Also available are the Bachelor of Science in Accounting (B.S.A.), Bachelor of Science in Business Administration (B.S.B.A.), the Bachelor of Science in Education (B.S.Ed.), and the Bachelor of Science in Public Administration (B.S.P.A.). The B.S. in Education offers specialization in any of the following: early childhood education, elementary education, middle school/junior high school, special education, and secondary education (in 11 teaching areas). Students should consult the appropriate departmental section of the College of Arts and Sciences, the School of Business Administration or the School of Education of this *Bulletin*.

Bachelor of Social Work The B.S.W. degree program is designed to prepare persons for employment in social welfare agencies, schools, hospitals, correctional institutions, or day care, geriatric, or rehabilitation centers. Individuals currently working in social welfare settings can improve their skills or increase their opportunities for job advancement. For further information, consult the Social Work section of this *Bulletin*.

The **Bachelor of General Studies** degree (B.G.S.) is also offered through the Evening College. It is designed to provide mature students with a meaningful alternative to traditional degree programs. It appeals to a variety of students whose circumstances, goals, and aspirations

Evening College

are different from those of the "typical" college student. The B.G.S. program provides the flexibility needed to enable students, with careful advisement, to develop individualized programs of study.

Some of the educational goals pursued by students in the program are designed to reflect students' interests in the fields of public relations, corporate communication, and exercise science.

Admission Requirements for the B.G.S. Program

Candidates for the B.G.S. degree must be admitted to the Evening College and must complete an application for admission to the program. Applications must be approved by the General Studies Committee and the Evening College dean. The criteria for admission are:

- 1) Students must be mature, their programs of study reasonable and be in good academic standing.
- 2) Students should have a broad education and must have demonstrated the equivalent of academic proficiency required for any other undergraduate degree at UM-St. Louis.
- 3) Study programs should be structured to meet students' unique educational goals and should not be readily available under any other UM-St. Louis degree program.
- 4) The degree will better qualify the recipients to deal with their life goals than if they had some other degree.

Degree Requirements for the B.G.S. Program

General Education Requirements

Students must complete the University's general education requirements. For details refer to the General Education Requirements section of this Bulletin.

Personal Emphasis Area In consultation with a faculty adviser, students shall develop a personal emphasis area of at least 30 advanced semester hours of graded credit that meets their educational goals. Graded credit consists of degree credit courses in which the student received a letter grade of A, A-, B+, B, B-, C+, C, C-, D+, D, D-. Regardless of the focus, theme, or purpose, the personal emphasis area should result from self-examination and contribute to self-realization and an advanced level of academic competence and achievement. The program must be approved by the faculty adviser, dean, and General Studies Committee. Students and advisers periodically review the program and make appropriate modifications where necessary, subject to the dean's approval.

Hour and Grade Requirements The degree requires completion of 120 semester hours with a 2.0 grade point average overall and in the personal emphasis area. No more than 30 hours may be taken in any one department without written consent of the departmental chairperson. At least 45 hours must be earned in courses beyond the introductory level. A minimum of 24 hours of graded credit must be completed in residence at UM-St. Louis, of which 15 hours must be in the personal emphasis area and completed after admission to the BGS program. No more than 18 hours may be taken on a satisfactory/unsatisfactory basis. Each candidate must be in residence for 24 of the last 30 hours of graded credit (exclusive of courses taken on a satisfactory/unsatisfactory basis).

Credit for Experience, Special Projects, Examinations, and Non-Traditional Forms of Study

Credit may be earned through the College Level Examination Program in accordance with University policy or through examinations proposed or approved by University departments. Credit also may be earned through correspondence study, supervised independent research study, and college-level courses offered by television or similar education media. Students are responsible for obtaining approval for credit applied under this option.

Students may receive credit for vocational experience, community service projects, or cultural activities after they have completed 24 hours of course work in residence.

Vocational Experience Credit may be granted for vocational experience when related to the personal emphasis area. Credit cannot exceed three semester hours for each year of experience with a maximum of 12 hours allowed only in exceptional circumstances. Petitions for vocational experience credit must be accompanied by a job description verified by the employer or similar appropriate evidence. Credit may be granted only upon recommendation of the faculty adviser and approvals of the dean and the General Studies Committee.

Community Service Projects/Cultural Activities

Credit not exceeding six hours may be earned for participation in approved community service projects or cultural activities. The projects or activities must be formulated by the student and carried out under the supervision of a faculty member with the approval of the adviser, dean, and General Studies Committee. Students must submit a written report approved by the supervisor upon completion of the projects or activities.

Credit for vocational experience or community service/cultural activities may be applied toward the elective credits required for the degree but may not be used to complete the personal emphasis area or general education requirements. Students must file a degree application form in the Evening College at least one year before the expected graduation date.

Evening College

Bachelor of Health Sciences

The Bachelor of Health Sciences (BHS) is designed to prepare students for two career areas: 1) clinical laboratory science (CLS) and 2) cytotechnology (CT). The BHS combines course work taken through the Biology Department at UM-St. Louis with clinical experiences at Barnes Jewish Hospital and throughout the BJC Systems of member hospitals and clinics.

The clinical laboratory science program prepares students to perform analytical tests on body fluids cells and products. The students will learn to identify possible discrepancies in data, confirm abnormal results and develop solutions to problems concerning the generation of laboratory data.

The cytotechnology program prepares students to be knowledgeable about all of the normal cells from numerous body sites, as well as those changes encountered due to neoplasia, infectious agents, viruses, and other causative agents. Graduates will be able to perform cytologic evaluations of body fluids, cells and fine-needle aspirations.

The BHS curricula was developed in collaboration with the Jewish Hospital College of Nursing and Allied Health. The course requirements are listed below. Consult the departmental section of this *Bulletin* for course descriptions and prerequisites.

Clinical Laboratory Science

Courses (specific course or distribution area and credits):

Humanities 9 credit hours
 State Requirement (3)
Bio 11, Intro Biology I (5)
Bio 113, Human Phys & Anat I (4)
Bio 114, Human Phys & Anat II (4)
Bio 216, Microbiology (3)*
Bio 218, Microbiology Lab (2)*
Bio 317, Immunobiology (3)
Bus 103, Comp & Info Systems (3)
Chem 11, Intro Chemistry I (5)
Chem 12, Intro Chemistry II (5)
Chem 262, Organic Reactions (3)
Chem 263, Tech of Organic Chem (2)
Com 30 or 40, Interpersonal or Public Speaking (3)
Eng 10, Freshman Comp (3)
Eng 213, Technical Writing (3)
Math 30, College Algebra (3)
Nurs 115, Pathophysiology (3)
Psy 201, Psych Stats (4)
Soc 10, Intro to Soc (4)

*Bio 116 & 118 may also fulfill these requirements.

Clinical requirements:

Bio 303a, Fundamentals in CLS (4)
Bio 303b, Clinical Bacteriology (3)
Bio 303c, Bacteriology Practicum (4)
Bio 303d, Mycology (2)
Bio 303e, Clinical Immunology (2)
Bio 303f, Immunology Practicum (1)
Bio 303g, Immunohematology (3)
Bio 303h, Immunohema Practicum (3)
Bio 303i, Hematology (3)
Bio 303j, Hematology Practicum (3)
Bio 303k, Clinical Chemistry (4)
Bio 303l, Chemistry Practicum (4)
Bio 303m, Parasitology CLS (2)
Bio 303n, Leadership & Mgmt CLS (4)
Bio 393, Res Methods Health Sci (3)

Free elective credits: 15 credit hours
 (Bio 213 and 371 are recommended)

Cytotechnology

Courses (specific courses or distribution area and credits):

Humanities 9 credit hours
 State requirement (3)
Bio 11, Intro Biology I (5)
Bio 113, Human Phys & Anat I (4)
Bio 114, Human Phys & Anat II (4)
Bio 216, Microbiology (3)*
Bio 218, Microbiology Lab (2)*
Bio 317, Immunobiology (3)
Bus 103, Comp & Info Systems (3)
Chem 1, Gen Chem I (3)
Chem 2, Gen Organic Chemistry (3)
Chem 3, Gen Chem Lab (2)
Com 30 or 40, Interpersonal or Public Speaking (3)
Eng 10, Freshman Comp (3)
Eng 213, Technical Writing (3)
Math 30, College Algebra (3)
Nurs 115, Pathophysiology (3)
Psy 201, Psych Stats (4)
Soc 10, Intro to Sociology (3)

*Bio 116 & 118 may also fulfill these requirements.

Clinical requirements:

Bio 302a, Intro to CT (3)
Bio 302b, Female Genital Tract 1 (4)
Bio 302c, Female Genital Tract II (3)
Bio 302d, Processing Lab (2)
Bio 302e, Respiratory & Oral CT (3)
Bio 302f, Body Fluid Cytology (3)
Bio 302g, Gastro Genitourinary CT (3)
Bio 302h, Fine Needle Aspiration (4)
Bio 302i, Adv Practices in CT (12)
Bio 302j, Leadership & Mngmt CT (4)
Bio 393, Res Methods Health Sci (3)

Free elective credits 17 credit hours
 (Bio 210 and 212 are recommended).

Evening College

Request for additional information concerning the BHS degree and academic advising can be obtained through the Evening College.

Minors

Minor in Employee Training and Development

The Evening College and the School of Business Administration offer a minor in employee training and development. The requirements are:

BA 318, or Psych 318, Industrial and Organizational Psychology

BA 319, Employee Training and Development

ED PSY 312, Psychology of Teaching and Learning

ED TEC 340, Selection and Utilization of Educational Media

Psych 219, Research Methods

One additional course selected from these approved electives:

BA 309, Personnel Management

Comm 141, Business and Professional Speaking

Sociology 354, Occupations and Their Work Settings

Students should consult with an adviser when planning their programs. A 2.0 grade point average is required for the minor. No courses may be taken on a satisfactory/unsatisfactory basis. At least 12 credits of those required must be completed in residence at UM-St. Louis.

This minor is designed for personnel managers in small companies and training managers or personnel specialists in larger companies. The required 18 hours, including the approved elective course, enable the student to be exposed to different skills essential for the occupational area.

Other Minors

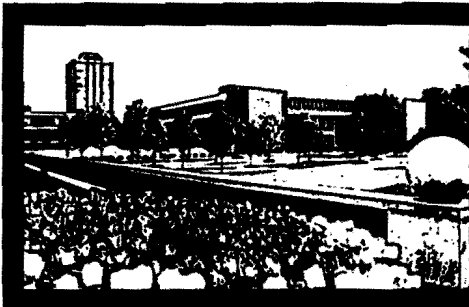
Minors are also available in biology, black studies, business administration, chemistry, communication, computer science, criminology and criminal justice, economics, English, history, legal studies, mathematics, political science, psychology, sociology, and urban studies. For currently offered minors, consult your adviser.

Certificates

Certificate programs are available in biochemistry, gerontology, women's studies, and writing. For more information consult the Certificate Programs section of this Bulletin.

Career Outlook

Many graduates of the Evening College have found their careers advanced upon obtaining their degree. Some have entered new careers in mid-life and others have found personal satisfaction in the acquisition of knowledge for its own sake. The Evening College staff consists of advisers with extensive experience concerning adult students' needs. For an appointment, call the Evening College office.



Public Policy Administration Graduate Degree Program

Faculty

Andrew D. Glassberg, Director of MPPA Program; Associate Professor of Public Policy Administration and Political Science*

Ph.D., Yale University

E. Terrence Jones, Professor of Public Policy Administration and Political Science*

Ph.D., Georgetown University

Carol W. Kohfeld, Professor of Public Policy Administration and Political Science*

Ph.D., Washington University

George J. McCall, Professor of Public Policy Administration and Sociology*

Ph.D., Harvard University

Eugene J. Meehan, Curators' Professor Emeritus of Public Policy Administration and Political Science*

Ph.D., London School of Economics

Donald Phares, Professor of Public Policy Administration and Economics*

Ph.D., Syracuse University

J. Fred Springer, Professor of Public Policy Administration and Political Science*

Ph.D., University of California-Davis

Michele M. Hoyman, Associate Professor of Public Policy Administration and Political Science*

Ph.D., University of Michigan

Timothy D. McBride, Associate Professor of Public Policy Administration, Gerontology, and Economics*

Ph.D., University of Wisconsin-Madison

Anne E. Winkler, Associate Professor of Public Policy Administration and Economics*

Ph.D., University of Illinois

J. Germain Gros, Assistant Professor of Public Policy Administration and Political Science

Ph.D., University of California-Berkeley

James M. Krueger, C.P.A., Assistant Professor of Public Policy Administration and Accounting*; Associate Vice Chancellor for Budgeting and Academic Planning

D.B.A., Indiana University

John McClusky, Director of Non-Profit Management and Leadership Program*

Ph.D., University of California-Berkeley

*members of Graduate Faculty

General Information

The Master's Program in Public Policy Administration (MPPA) is an interdisciplinary program designed to prepare students for managerial positions in the public sector or in agencies having substantial interaction with the public sector. The program is a unit of the Graduate School and is accredited by the National Association of Schools of Public Affairs and Administration. Faculty are on joint appointment in public policy administration and in either economics, political science, sociology, or business administration. The program includes courses in policy analysis, public administration, management, accounting, and economics in the basic curriculum.

The MPPA program at the University of Missouri-St. Louis 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 in the evening 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, in the Center for Metropolitan Studies, and in the Center for International Studies. The MPPA Program serves as editorial home of the American Review of Public Administration.

The full facilities of Campus Computing, including the urban data program, are available. UM-St. Louis is also a member of the Inter-University Consortium for Political and Social Research.

Admission Requirements

Applicants to the MPPA program must meet the general requirements for admission to Graduate School as explained in the Graduate Study section of this Bulletin. Students entering the MPPA program may be required to take up to nine hours of prerequisites in mathematics, accounting, and social science. Up to three hours of graduate-level work at UM-St. Louis, taken to meet prerequisite requirements, may be applied to the 40 hours required for the MPPA degree.

Degree Requirements

The program includes 40 hours, 25 in the core curriculum sequence and 15 in a special field chosen by students in consultation with their advisers.

Prerequisites

Students must demonstrate competency in microcomputer based applications, including spreadsheets and data bases. These competencies must be acquired at the beginning of the degree program, if students are not already familiar with these applications. Competency may be demonstrated by examination, or by successfully completing approved short courses in spreadsheets and data bases, or by completing PPA 480, Management Information Systems.

Core Curriculum

All candidates for the MPPA degree must complete 25 hours in the core curriculum sequence composed of the following public policy administration courses:

Administration

440, Proseminar in Public Policy Administration
460, Organizational Behavior and Administrative Processes

Accounting and Budgeting

418, Governmental Budgeting and Financial Control

Public Policy Administration Graduate Degree Program

Economics

421, Public Sector Microeconomics

Policy Analysis

410, Introduction to Policy Analysis

419, Cases in Public Policy Analysis

Statistics and Applications

401, Introduction to Policy Research

475, Introduction to Evaluation Research Methods

Exit Project

499, Exit Project Research

A thesis is not required, but students must complete written analyses as part of their course work and/or internships. There is also a one credit hour exit project (PPA 499) examining a problem in public policy administration in the final semester. PPA 419 is a capstone course and should be taken toward the end of the program.

Students may select one of five emphasis areas in which to concentrate their advanced studies: (1) Public Sector Human Resource Management, (2) Public Policy Analysis, (3) Public Policy Processes, (4) Health Policy, (5) Nonprofit Organization Management or select an Individualized focus area. Possible fields for the latter include financial administration, health care policy, criminal justice policy, and urban policy. Specific requirements for each focus area are as follows:

Public Sector Human Resource Management Emphasis Area (15 hours)

a. Required Courses (6 hours)

Management 461, Managing Human Resources

PPA 449, Human Resources in the Public Sector

b. Choose one of the following courses (3 hours); additional courses may be applied toward optional electives (c).

Management 462, Advanced Organizational Behavior and Administrative Processes

Management 466, Personnel Administration: Theory and Practice

Psych 452, Survey of Industrial/Organizational Psychology

c. Optional Electives (6 hours—may include courses listed but not counted in (b)).

PPA 495, Internship (up to 6 hours).

Management 463, Organizational Training

Management 464, Compensation

Management 467, Dynamics of Interpersonal Relations

Psych 429, Psychometric Theory

Econ 480, Labor Economics: Theory and Public Policy

Public Policy Analysis Emphasis Area (15 hours)

a. Required Course (3 hours)

PPA 365, Introduction to Econometrics or Political Science 402, Intermediate Techniques in Policy Research

b. Choose two of the following courses (6 hours); additional courses may be applied toward optional electives (c).

PolSci 411, Seminar in Policy Analysis

PolSci 422, Law, Courts, and Public Policy

Sociology 304, Survey Research Practicum

Sociology 331, Qualitative Methods in Social Research

c. Optional Electives (6 hours—may include courses listed but not counted in (b)).

PPA 495, Internship (up to 6 hours).

Econ 366, Applied Econometrics or **PolSci 403**,

Advanced Techniques in Policy Research

Econ 317, Public Finance: State and Local

Econ 450, Topics in Managerial Economic Analysis

Econ 470, The Political Economy of Metropolitan Areas

Econ 480, Labor Economics: Theory and Public Policy

Econ 490, Advanced Topics in Economic Analysis

Public Policy Processes Emphasis Area (15 hours)

Required Electives

a. Required Course (3 hours)

PolSci 442, The Policy Process

b. Choose two of the following courses (6 hours); additional courses may be applied toward optional electives (c).

PolSci 420, Proseminar in Public Law

PolSci 430, Proseminar in American Politics

PolSci 432, Intergovernmental Relations

PolSci 470, Proseminar in Urban Politics

PolSci 448, Political Economy and Public Policy

Sociology 430, Policy Mediation Processes

c. Optional Electives (6 hours—may include courses listed but not counted in (b) above).

PPA 495, Internship (up to 6 hours).

Econ 470, The Political Economy of Metropolitan Areas

Econ 480, Labor Economics: Theory and Public Policy

Econ 450, Topics in Managerial Economic Analysis

Econ 317, Public Finance: State and Local

Econ 490, Advanced Topics in Economic Analysis

Health Policy Emphasis Area (15 hours)

a. Required Courses (9 hours)

PPA 443, Health Care Policy

PPA 446, Selected Topics in Health Care Policy: Comparative Health Policy

Econ 471, Political Economy of Health Care or

Econ 472, Health Economics

b. Optional electives (6 hours)

PPA 446, Selected Topics in Health Care Policy

Econ 472, Health Economics

Sociology 447, Health Policy and the Elderly

Social Work 420, Medical Social Work

Gerontology 376/Psych 376, Mental Health and Aging

Gerontology 401/Nursing 401, Health and Wellness in the Elderly

Gerontology 441, Aging and Health Behavior

Public Policy Administration Graduate Degree Program

Nonprofit Organization Management Emphasis Area

a. Required Courses (9 hours)

PPA 391-A, Management Issues in Non-Profit Organizations: Staff Management Issues (1)
PPA 391-B, Management Issues in Non-Profit Organizations: Legal Issues in Governing and Non-Profit Organizations (1)
PPA 391-C, Management Issues in Non-Profit Organizations: Financial Issues (1)
PPA 394, Leadership and Management in Non-Profit Organizations (3)
PPA 396, American Philanthropy and Non-Profit Resource Development (3)

b) Optional Electives (6 hours)

PPA 495, Internship (up to 6 hours)
PPA 449, Human Resources in the Public Sector (3)
Sociology 424, Conflict Management in Organizations (3)
Sociology 426, Community and Regional Conflict Intervention (3)
Sociology 430, Policy Mediation Processes (3)
Sociology 444, Social Policy and Community Planning (3)
BA 343, Accounting for Governmental and Nonprofit Entities (3)
BA 405, Managerial Communication (3)
BA 410, Managerial Economic Analysis (3)
BA 412, Public Policies Toward Business (3)
BA , MKT 470, Contemporary Marketing Concepts (3)
Psych 412, Social Psychology (3)

Individualized Focus Area (15 hours)

Prior to completion of 15 hours in the MPPA program, the student must present a proposal of specific course work for 15 credit hours of optional electives for approval by the MPPA faculty. No more than 9 hours in a given area (e.g., Financial Administration, Health Policy, Criminal Justice Policy, Urban Policy) may be applied toward degree requirements. The fifteen hours may include PPA 495 (Internship) for up to 6 hours.

Internships

There currently exists a need for well-trained policy administrators and analysts. Frequent contact is maintained with public 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.

MPPA students employed in public agencies may receive up to six hours of credit for internships in those agencies. To do so, students must develop, in consultation with their advisers, 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.

Career Outlook

The current outlook for graduates of the interdisciplinary Master's Degree in 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.

Public Policy Administration Graduate Degree Program

Course Descriptions

365 Introduction to Econometrics (3)

(Same as Econ 365.) Prerequisites: Econ 52; Econ 251 or BA 410; Econ 265 or MS/IS 481 or PPA 401; Math 80 or 101. An introduction to quantitative analysis of economic behavior. The ordinary least squares technique and the assumptions underlying it are developed. Methods designed to detect and correct for the violations of these assumptions are examined. Special emphasis is given to the practical application of the procedures discussed through the use of computer exercises.

391A Management Issues in Non-profit Organizations: Staff Management Issues (1)

Prerequisite: Junior Standing. (Same as Political Science 391A and Social Work 391A). This course addresses issues involved in managing staff in non-profit 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.

391B Management Issues in Non-profit Organizations: Legal Issues in Governing and Managing Non-profit Organizations (1)

(Same as Political Science 391B and Social Work 391B). This course addresses legal issues involved in managing and governing non-profit 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 non-profit law.

391C Management Issues in Non-profit Organizations: Financial Issues (1)

(Same as Political Science 391C and Social Work 391C). This course addresses financial issues involved in governing and managing non-profit 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.

394 Leadership and Management in Nonprofit Organizations (3)

(Same as PolSci 394, Social Work 308, and Sociology 308.) Prerequisite: Junior standing. This course 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.

396 American Philanthropy and Non-profit Resources Development (3)

Prerequisite: Junior standing or consent of instructor. (Same as Political Science 396 and Social Work 396). This course addresses the history, philosophy, roles and scope of philanthropy in the United States, including its role in the non-profit, 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.

401 Introduction to Policy Research (3)

(Same as PolSci 401.) Procedures for testing explanations, including research design, principles of measurement, probability sampling, methods of data collection, and techniques for analyzing data.

410 Introduction to Policy Analysis (3)

(Same as PolSci 410.) Systematic development of a critical/analytic base for dealing with public policy.

415 Directed Reading and Research in Public Policy (1-10)

(Same as PolSci 415.) Prerequisite: Consent of Instructor. Independent study through readings, reports, research projects, and conferences. May be repeated for credit, provided the subject matter is different.

Public Policy Administration Graduate Degree Program

417 Income and Pension Policy for the Aged (3)

(Same as PolSci 417 and Gerontology 417.)

Prerequisite: Graduate standing or consent of instructor. Examination of federal, state, and local policies that affect the economic well-being of the elderly. The development of social security programs and pension programs is explored within a historical context. Emphasis is placed on the analysis of current policy problems and proposed solutions.

418 Governmental Budgeting and Financial Control (3)

(Same as BA 418.) Prerequisite: BA 440. 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.

419 Cases in Public Policy Analysis (3)

(Same as PolSci 419.) Intensive analysis of several public policy cases. Cases will be problem-solving exercises in areas such as personnel management, program financing, budget preparation, and planning.

421 Public Sector Microeconomics (3)

(Same as Econ 421.) Prerequisites: Econ 251, or BA 410, or equivalent. 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.

434 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 administrators face.

440 Proseminar in Public Administration (3)

(Same as PolSci 440.) 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.

443 Health Care Policy (3)

(Same as PolSci 443, and Gerontology 443.)

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.

444 Seminar in Public Policy and Aging (3)

(Same as Gerontology 444 and PolSci 444.)

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.

446 Selected Topics in Health Care Policy (3)

(Same as PolSci and Sociology 446.) 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.

449 Human Resources in the Public Sector (3)

(Same as PolSci 449.) Prerequisite: PPA 460 or consent of instructor. This course presents an overview of personnel and labor relations in the public sector. The course has particular emphasis 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.

Public Policy Administration Graduate Degree Program

460 Organizational Behavior and Administrative Processes (3)

(Same as Management 460.) 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.

475 Introduction to Evaluation Research Methods (3)

(Same as Psych 475, Sociology 475, and CCJ 475) 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.

480 Management Information Systems (3)

Prerequisite: Econ 301. (Same as MS/IS 480.) An overview of management information systems is presented, including various information systems concepts and technologies. Students are introduced to a mainframe operating system, a microcomputer-based operating system, and a programming language. Students are also exposed to several common microcomputer-based software applications.

495 Internship (1-6)

Independent study involving work with an appropriate public or private agency.

499 Exit Project Research (1)

Prerequisites: Completion of or simultaneous enrollment in other degree requirement courses. The exit project is viewed as the capstone of the MPPA program. As such, it is meant to be undertaken toward the end of a student's program, usually during the final semester. Its purpose is to provide evidence to the faculty that the degree candidate has mastered the skills acquired in the various courses completed during residence at the University and can apply them to the analysis of a practical research problem.

Gerontology

Faculty

Robert J. Calsyn, Director; Professor* of Psychology and Gerontology
Ph.D., Northwestern University

K. Peter Etzkorn, Professor* of Sociology
Ph.D., Princeton University

Carl J. Bassi, Associate Professor* of Optometry
Ph.D., Vanderbilt University

Bruce Clark, Associate Professor* of Physical Education
Ph.D., University of Illinois

Norman Flax, Associate Professor* of Social Work
Ph.D., St. Louis University

Joan Hashimi, Associate Professor* of Social Work
Ph.D., Washington University

Margo-Lea Hurwicz, Associate Professor* of Anthropology and Gerontology
Ph.D., University of California-Los Angeles

W. Howard McAlister, Associate Professor* of Optometry
O.D., Ohio State University

Timothy D. McBride, Associate Professor* of Public Policy Administration, Economics, and Gerontology
Ph.D., University of Wisconsin-Madison

Ann M. Steffen, Assistant Professor* of Psychology
Ph.D., Indiana University

Nina Tumosa, Assistant Professor* of Optometry
Ph.D., State University of New York at Albany (SUNYA)

Chikako Usui, Associate Professor* of Sociology and Gerontology
Ph.D., Stanford University

Timothy A. Wingert, Associate Professor* of Optometry
O.D., Illinois College of Optometry

Myra Aud, Adjunct Lecturer,
M.S.N., St. Louis University

Richard P. Johnson, Adjunct Professor
Ph.D., University of Florida

Kathleen O'Brien, Adjunct Lecturer,
M.S.W., Washington University

Anna Biggs, Lecturer Barnes College of Nursing
Ph.D., University of Colorado Health Sciences Center

Nanora L. Sweet, Senior Lecturer of English
M.A., University of Missouri-Columbia

*members of Graduate Faculty

Faculty from 10 departments 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 management or direct service positions working with the aged. The program of study includes courses from a variety of departments including anthropology, biology, nursing, political science, psychology, sociology, social work, physical education, English, public policy administration, and optometry. Courses are offered primarily in the evening to accommodate part-time, as well as full-time, students.

Admission Requirements

Program applicants must have the following:

1. Baccalaureate degree
2. 3.0 or (B) average (students with exceptions should contact the Director of the Gerontology Program)
3. Official transcripts of all previous undergraduate/graduate work
4. 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 45 credit hours including 27 hours in gerontology courses, a three-hour research methods course, and a 15-hour specialization that is individually tailored to the student's career goals. Depending on the student's prior course work in gerontology, up to fifteen hours of credit may be waived. The required courses are listed below.

Gerontology Distribution Requirements

- A. Public Policy and Aging-6 credits**
Gerontology (PPA, Political Science) 443, Health Care Policy
Gerontology (PPA, Political Science) 417, Income and Pension Policy for the Aged or **Gerontology (Sociology) 449**, Issues in Retirement
- B. Health Behavior of the Elderly-2 credits**
Gerontology (Nursing) 401, Health and Wellness in the Elderly, or
Gerontology 441, Aging and Health Behavior
- C. Physiological Theories of Aging-3 credits**
Biology 311, Physiology of Aging

Gerontology

D. Psychological Aspects of Aging-3 credits
Gerontology (Psych) 373, Psychology of Aging, or
Gerontology (Psych) 376, Mental Health and Aging

E. Sociocultural Aspects of Aging-3 credits
Gerontology (Sociology) 361, Sociology of Aging, or
Gerontology (Anthro) 440, Cultural Aspects of Aging

F. **Gerontology 494**, Integrative Research in Gerontology—3 credits

G. **Gerontology 495**, Practicum in Gerontology—3 credits.

H. Electives in Gerontology, 3-4 Credits depending on courses taken to meet gerontology distribution requirements.

Other Requirements

A. Graduate level statistics course, approved by the Director of Gerontology. Acceptable courses include Public Policy Administration (Political Science) 401, Introduction to Policy Research; ED REM 432, Educational and Research Methods II, 3 credits.

B. Specialization Area-15 credits
 Each student develops a 15-hour specialization area with the guidance of the Director of Gerontology. Most specialization areas focus on administration or counseling.

Graduate Certificate in Gerontology

The Graduate Certificate in Gerontology is designed for those students who wish to receive postbaccalaureate training in gerontology. The Graduate Certificate in Gerontology 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:

1. Baccalaureate degree
2. 2.75 grade point average (students with exceptions should contact the director of the Gerontology Program)
3. Official transcripts of all previous undergraduate/graduate work
4. Two letters of recommendation

Distribution Requirements

A. Public Policy-3 credits
Gerontology (PPA, Political Science) 443, Health Care Policy, or
Gerontology (PPA, Political Science) 417, Income and Pension Policy for the Aged, or
Gerontology (Sociology) 449, Issues in Retirement

B. Health and Physical Aspects of Aging-2 credits
Gerontology (Nursing) 401, Health and Wellness in the Elderly, or
Gerontology 441, Aging and Health Behavior, or
Biology 311, Physiology of Aging, or
Gerontology 458 (Optometry 558), Geriatric Optometry, or
Gerontology (Optometry) 497, Interdisciplinary Geriatric Care

C. Psychological Aspects of Aging-3 credits
Gerontology (Psych) 373, Psychology of Aging, or
Gerontology (Psych) 376, Mental Health and Aging
 D. Sociocultural Aspects of Aging-3 credits
Gerontology (Sociology) 361, Sociology of Aging, or
Gerontology (Anthro) 440, Cultural Aspects of Aging

E. Electives in Gerontology-6-7 credits depending on courses taken to meet distribution requirements listed above.

Graduate Certificate in Gerontological Social Work

The Graduate Certificate in Gerontological Social Work is a program designed for students who wish to pursue advanced study in Social Work practice with the elderly. While the program draws from several disciplines, the focus is on practice and/or administration in gerontological settings. The program can be taken by itself or in conjunction with the pursuit of a graduate degree in another field.

Admission Requirements

Program applicants must have the following:

1. Baccalaureate degree
2. 2.75 grade point average (students with exceptions should contact the director of the Gerontology program)
3. Official transcripts of all previous undergraduate/graduate work
4. Two letters of recommendation

Gerontology

Certificate Requirements

Eighteen credit hours are required to complete the certificate. Students must complete 15 hours of required core courses and three hours of gerontology electives at the 300 level or above.

Required Core Courses

Gerontology 316, Clinical Gerontology, or
Social Work 316, Clinical Gerontology
Gerontology 373, Psychology of Aging, or
Psych 373, Psychology of Aging
Gerontology 361, Social Gerontology, or
Sociology 361, Social Gerontology
Gerontology 444, Public Policy and Aging, or
Political Science 444 Public Policy and Aging
Social Work 412, Research Design in Social Work
Social Work 491, Professional Leadership Practice

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 and the Schools of Business Administration, Nursing, and Education. It is appropriate for students in the College of Arts and Sciences or any of the Schools of the University.

Certificate Requirements

A student may earn the Certificate in Gerontological Studies by completing a total of fifteen hours. Courses must be chosen from at least two of the following four topic areas. No more than three 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

English 15, Images of Age in Film
English 16, Images of Age in Literature
Gerontology 156, Medical Ethics, or
Philosophy 156, Medical Ethics

Natural Sciences and Mathematics

Gerontology 111, Issues in Geriatric Health Care, or
Biology 111, Issues in Geriatric Health Care, or
Nursing 111, Issues in Geriatric Health Care
Biology 311, Physiology of Aging

Social Sciences

Gerontology 272, Adult Development and Aging, or
Psych 272, Adult Development and Aging
Gerontology 280, The Psychology of Death and Dying, or
Psych 280, The Psychology of Death and Dying
Gerontology 373, The Psychology of Aging, or
Psych 373, The Psychology of Aging
Gerontology 316, Clinical Gerontology, or
Social Work 316 Clinical Gerontology
Gerontology 361, Social Gerontology, or
Sociology 361, Social Gerontology

Education

Gerontology 190, Clinical Experience in Physical Gerontology, or
PHY ED 190, Clinical Experience in Physical Gerontology
Gerontology 392, Internship in Physical Gerontology, or
PHY ED 392, Internship in Physical Gerontology
Gerontology 330, Prescribing Physical Activity, or
PHYED 330, Prescribing Physical Activity

Career Outlook

The increasing number of elderly in the population has greatly expanded job opportunities in gerontology in the last decade, and job prospects for the future are equally bright. Career possibilities include nursing home administration, administration and planning of community-based programs for the elderly, recreational programming, and counseling of the elderly.

Gerontology**Course Descriptions****15 Images of the Elderly in Film (3)**

(Same as English 15.) Analysis of the portrayal of older adults in various films. Class discussions focus on the style and thematic content of the film, as well as intergenerational relationships.

16 Images of Age in Literature (3)

(Same as English 16.) Reading and discussion of literature that portrays aging and old age in various settings. Emphasis is on contemporary novels, but poetry and drama such as King Lear are read as well. Discussion and short essays enable consideration of how literature helps in the study of aging and also how the process of aging can be a creative force within literature.

60 Aging in America (3)

(Same as Interdisciplinary 60.) An introduction to the major issues, research, problems, and current service approaches in the study of the aging process. An overview of information useful for students in the arts and sciences, business, education, and nursing schools.

111 Issues in Geriatric Health Care (2)

(Same as Nursing 111 and Biology 111.) A course designed to acquaint the student with aspects of chronic disease frequent in later life, as well as a synopsis of biological aging processes. Disease symptomology aspects of health maintenance and medical intervention with an older adult population will be discussed. In addition, issues in health care delivery will also be explored.

120 Special Topics in Gerontology (1-3)

(Same as Interdisciplinary 120.) 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.

156 Medical Ethics (3)

(Same as Philosophy 156.) An examination of ethical issues in medical practice and research and in public policies affecting health care. Topics include abortion, euthanasia, medical experimentation, informed consent, and the right to health care.

190 Clinical Experience in Physical Gerontology (3)

(Same as PHY ED 190.) Prerequisite: Consent of instructor. Early supervised experience in gerontological physical activity programming. Seminar precedes and accompanies clinical experience.

215 Growing Old in Other Cultures (3)

(Same as Anthro 215.) This course examines the wide ranging variability in the roles of older people across different cultures and the effects these have on older people, their families, and their societies.

272 Adult Development and Aging (3)

(Same as Psych 272.) Personality, social, and physiological development from the onset of early adulthood through maturity and old age.

280 The Psychology of Death and Dying (3)

(Same as Psych 280.) This course will address the psychological aspects of death and dying for both adults and children. The psychological reactions of terminally ill patients and their families will also be examined, and therapeutic interventions will be discussed.

311 Physiology of Aging (3)

(Same as Biology 311) Prerequisite: Biology 11, 12 and 213 or equivalent, or consent of instructor. An overview of the aging process in animal populations with special emphasis on physiological changes that occur with human aging. Current theories as to the mechanism of aging are considered and critically evaluated in view of recent research findings. Premature aging diseases and age-related diseases are discussed. Three hours of lecture per week.

316 Clinical Gerontology (3)

(Same as Social Work 316.) Prerequisite: Social Work 280 or Psych 268. This course includes (1) an examination of the social, economic, health, and psychological problems specific to an older adult population; (2) consideration of special needs of the frail elderly, to include problems in long-term care; and (3) the special practice skills (individual, group) needed for intervention with older adults.

330 Prescribing Physical Activity (3)

(Same as PHY ED 330.) Prerequisite: PHY ED 280 or consent of instructor. Prescription of physical activity for individualized and group programming based upon physical fitness assessment. Health, nutrition, age, physical fitness, and testing aspects are considered in developing specialized exercise programming based upon current physiological and biomechanical research.

Gerontology**361 Social Gerontology (3)**

(Same as Sociology 361.) Prerequisite: Sociology 10 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.

373 Psychology of Aging (3)

(Same as Psych 373.) Prerequisite: Nine hours of Psychology or consent of instructor. This course focuses on the developmental changes associated with aging including sensation, memory, emotions, and attitudes.

376 Mental Health and Aging (3)

(Same as Psych 376.) Prerequisites: Consent of instructor plus Psychology 272, 373, or graduate student status. A survey of recent theory and research in mental health issues for older populations. The primary focus is on major psychological disorders prevalent among the elderly and in treatment approaches for elders.

392 Internship in Physical Gerontology (1-10)

Prerequisite: PHYS ED/GER 190 or consent of instructor. (Same as PHYSED 392). Supervised clinical experience in selected gerontological settings as a physical education practitioner under the supervision of University and program professionals. Internship may include two or more separate experiences completed concurrently or sequentially and involve planning of instruction, participant and program evaluation, research, and related activities.

401 Health and Wellness in the Elderly (3)

Prerequisite: Graduate standing. (Same as Nursing 401). Factors contributing to longevity and health in old age, including genetic predisposition, lifestyle, culture, and environment are related to aspects of maintaining health and promoting wellness. Through a holistic approach, explores aspects of nutrition, exercise and activity, prevention of hazards to health, maintaining self-responsibility, managing stress, and meeting continued developmental, emotional and spiritual needs. Considers cross-disciplinary interventions to promote health and wellness in the elderly. Introduces the "Putting Prevention into Practice" model adapted to health promotion in the elderly.

417 Income and Pension Policy for the Aged (3)

(Same as Public Policy Administration 417 and PolSc 417.) Prerequisite: Graduate standing or consent of instructor. Examination of federal, state, and local policies that affect the economic well-being of the elderly. The development of social security programs and pension programs is explored within a historical context. Emphasis is placed on the analysis of current policy problems and proposed solutions.

440 Cultural Aspects of Aging (3)

(Same as Anthro 440.) 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.

441 Aging and Health Behavior (3)

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.

442 Minority Aging (3)

(Same as Sociology 442.) Prerequisite: Sociology 361 or consent of instructor. The experience of aging for racial and ethnic minority elderly will be examined in the context of their families, communities, and society. Key questions concerning minority elderly frame the course, such as the relative importance of culture versus social structure, and the applicability of gerontological theory to the minority aging experience.

443 Health Care Policy (3)

(Same as PolSci 443 and Public Policy Administration 443.) 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.

Gerontology

444 Seminar in Public Policy and Aging (3)

(Same as Public Policy Administration 444 and PolSci 444.) 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.

445 Sociological Dimensions of Chronic Illness (3)

(Same as Sociology 445.) Prerequisite: Sociology 400 or consent of instructor. The consequences of chronic illness for social roles, family and organizational dynamics, and the functioning of society are examined. Chronic illness is presented as both a medical problem and a social phenomenon that is shaped by the changing age structure of society.

449 Issues in Retirement (3)

(Same as Sociology 449.) 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.

458 Geriatric Optometry (2)

(Same as Optometry 558.) Special examination and management considerations of the geriatric patient will be discussed. Psychological, physiological, social, and demographic aspects of aging, as well as ocular changes associated with the aging process will be taught.

490 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 six credit hours.

494 Integrative Research Seminar in Gerontology (3)

(Same as Psychology 494.) Prerequisite: A graduate level research methods course (e.g., PPA 401). This seminar requires students to critically examine research in terms of methodology. Topics covered include: reliability and validity of measures; internal and external validity; needs assessment; treatment implementation and process evaluation, and qualitative methods.

495 Practicum in Gerontology (3)

(Same as Psychology 495.) Prerequisite: Consent of instructor. This course provides supervised work experience in an agency that serves the elderly.

496 Gerontology Colloquium (1)

(Same as Psychology 496.) Presentation of current topics in gerontology by faculty and invited speakers. May be repeated for a total of three credits.

497 Interdisciplinary Geriatric Care (2)

(Same as Optometry 497.) 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.

498 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.)

499 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).

International Studies

International Studies Certificates Undergraduate

The Center for International Studies offers, in cooperation with the College of Arts and Sciences, certificate programs in Africana, East Asian, European, Latin American, and International Studies, and in cooperation with the College and the School of Business Administration, the International Business certificate. Students seeking certificates (except African Diaspora or International Business) must take an independent study course (three hours) in which a research paper will be written focusing upon some aspect of the particular field or on one of the fields offered in the program.

Requirements for Each Program

Africana Studies Certificate

Students seeking the Africana Studies Certificate have two options: an emphasis in African Studies and an emphasis in African Diaspora Studies.

I. African Studies:

1) At least **one** course in **two** of the following four areas for a total of nine hours:

Area 1: Anthropology

124, Cultures of Africa

Area 2: Art and Art History

117, African Art

Area 3: History

81, African Civilization to 1800

82, African Civilization Since 1800

Area 4: Political Science

258, African Politics

2) **One** course in **two** of the following areas, a total of six hours:

Area 1: Anthropology

234, Cultural Continuity and Change in Sub-saharan Africa

235, Women in Sub-saharan Africa

Area 2: Art and Art History

***215**, Topics in Tribal Arts

* **Note:** Students should take Art History 215 only when the topic is appropriate to Africa.

Area 3: History

380, West Africa to 1800

381, West Africa Since 1800

382, History of Southern Africa

Area 4: Sociology

245, Sociology of South Africa

3) An independent study course (three hours) in which a research paper will be written on some aspect of African Studies

II. African Diaspora Studies

1) **Interdisciplinary 40:** The Black World (3)

2) **One** course from **each** of the following areas, a total of six hours.

Area 1: Africa

Anthro 124: Cultures of Africa

History 81: African Civilization to 1800

History 82: African Civilization Since 1800

Area 2: Diaspora

Anthro 05: Human Origins

History 06: African-American History

History 83: The African Diaspora to 1800

History 84: The African Diaspora Since 1800

History 212: African-American History: From Civil Rights to Black Power

3. At least **one** course from **each** of the following areas, a total of six hours:

Area 1: Africa

Anthro 234: Cultural Continuity and Change in Sub-saharan Africa

Anthro 235: Women in Sub-saharan Africa

Art History 117: African Art

History 380: West Africa to 1800

History 381: West Africa Since 1800

History 382: History of Southern Africa

PolSci 258: African Politics

Sociology 245: Sociology of South Africa

Area 2: Diaspora

Comm 332: Intercultural Communication

English 70: African-American Literature

History 319: Topics in African-American History

History 385: African Diaspora to 1800

History 386: African Diaspora Since 1800

Music 6: Introduction to African-American Music

PolSci 232: African Americans and the Political System

***Psych 392:** Selected Topics in Psychology:

African-American Psychology

Sociology 360: Sociology of Minority Groups

International Studies

* **Note:** Students should take Psychology 392 only when the African American Psychology topic is offered.

East Asian Studies Certificate

1) First- and second-year Chinese, Japanese, Korean, or other appropriate Asian language (20 hours taken in four semesters).

2) **History 61 and History 62**, East Asian Civilization

3) **One** course in three of the following six areas, a total of nine hours:

Area 1: Anthropology

110, Cultures of Asia

Area 2: Art and Art History

107, The Arts of China

108, The Arts of Japan

208, Topics in Asian Art

Area 3: History

162, The Chinese Revolution: Readings in Chinese Literature

361, Modern Japan: 1850 to Present

362, Modern China: 1800 to Present

*393, Senior Seminar

***Note** Students should take History 393 only when the topic is appropriate to East Asia.

Area 4 Music

9, Non-Western Music I

10, Non-Western Music II

Area 5: Philosophy

120, Asian Philosophy

Area 6: Political Science

155, East Asian Politics

*359, Studies in Comparative Politics

*388, Studies in International Relations

***Note** Students should take PolSci 359 or PolSci 388 only when the specific topic is appropriate.

European Studies Certificate

1) Four semesters of college work or the equivalent in a modern European foreign language.

2) **History 32**, Topics in European Civilization: 1715 to the Present.

3) **One** course **each** from at least **four** of the following eight areas, a total of 12 hours. Students should consult advisers at the Center to determine how these courses can best be arranged to meet their interests.

Area 1: Art and Art History

135, Renaissance Art

145, Baroque Art

235, Topics in Renaissance Art

245, Topics in Seventeenth- and Eighteenth-Century European Art

255, Topics in Nineteenth- and Twentieth-Century European Art

Area 2: Economics

238, Comparative Economic Systems

Area 3: English

127, Survey of European Literature from 1650 to the Second World War

128, The Contemporary World in Literature

132, English Literature II

323, Continental Fiction

346, Restoration and Eighteenth-Century Drama

364, The Eighteenth-Century English Novel

365, The Nineteenth-Century English Novel

372, Literature of the Late Nineteenth and Early Twentieth Centuries

383, Modern British Fiction

Area 4: History

31, Topics in European Civilization: Emergence of Western Europe to 1715

341, The Age of the Renaissance

342, The Age of Reformation

345, Europe 1763 - 1871, Revolution, Reaction and Reform

347, Europe in the Belle Epoque (1870-1914)

348, Europe 1900 - 1950: War and Upheaval

349, Europe, 1950 - Present: Peace and Prosperity

351, Contemporary France: Since 1870

352, Germany in the Modern Age

354, History of Russia From 1917-Present

Area 5: Foreign Languages and Literatures

FRENCH

110, Modern French Literature in Translation

150, European Literature in Translation: Special Topics

211, Contemporary French Culture

281, French Literature II: Nineteenth and Twentieth Centuries

341, Seventeenth-Century French Theatre and Poetry

342, Seventeenth-Century French Prose

353, Eighteenth-Century French Literature

354, Eighteenth-Century French Theatre and Novel

362, Nineteenth-Century French Novel

371, Twentieth-Century French Novel

375, Modern French Theatre

GERMAN

110, Masterpieces of German Literature in Translation

150, European Literature in Translation: Special Topics

201, Masterpieces of German Literature

202, The German Novelle and Drama

210, German Culture and Civilization

315, German Classicism and Romanticism

320, German Realism and Naturalism

345, Modern German Literature

397, Survey of German Literature Part I

398, Survey of German Literature Part II

International Studies

SPANISH

- 110, Spanish Literature in Translation
- 150, European Literature in Translation: Special Topics
- 310, Spanish Literature from 1898 to 1939
- 315, Spanish Literature from 1939 to the Present
- 320, Realism and Naturalism in the Nineteenth-Century Spanish Novel
- 321, Poetry and Drama of the Nineteenth Century
- 325, Poetry and Drama of the Golden Age

Area 6: Music

- 322, Music of the Renaissance
- 323, Music of the Baroque
- 324, Music of the Classic Period
- 325, Music of the Romantic Period

Area 7: Philosophy

- 103, Early Modern Philosophy
- 104, Kant and Nineteenth-Century Philosophy
- 105, Twentieth-Century Philosophy
- 205, The Rationalists
- 206, The British Empiricists

Area 8: Political Science

- 251, Comparative Politics of Europe
- 256, Russia and the New Republics
- 284, European International Relations
- *351, Comparative Public Policy and Administration
- *359, Studies in Comparative Politics
- *388, Studies in International Relations
- *Note Students should take PolSci 351, 359, or 388 only when the topic is appropriately European.

Latin American Studies Certificate

- 1) Thirteen credit hours or the equivalent in Spanish.
- 2) **Either History 71, Latin American Civilization, or Spanish 211, Hispanic Culture and Civilization: Spanish America.**
- 3) A total of 12 hours from at least **three** of the following areas:

Area 1: Anthropology

- 134, The Inca, Aztec, and Maya
- 140, Cultures of Mexico and Central America
- 145, Indians of South America

Area 2: Art and Art History

- 119, Pre-Columbian Art of Mexico and Central America

Area 3: History

- 371, History of Latin America: To 1808
- 372, History of Latin America: Since 1808

Area 4: Political Science

- 253, Political Systems of South America
- 254, Political Systems of Mexico, Central America, and the Caribbean
- *359, Studies in Comparative Politics

*Note Students should take PolSci 359 only when the topic is appropriate to Latin America.

Area 5: Spanish

- 111, Spanish-American Literature in Translation
- 211, Hispanic Culture and Civilization: Spanish America
- 281, Introduction to Hispanic Literature: Spanish America
- 340, Spanish-American Literature of the Nineteenth Century
- 341, Modernismo
- 345, Spanish-American Literature of the Twentieth Century
- 351, Spanish-American Fiction in the Twentieth Century
- 360, Spanish-American Poetry from Modernismo to the Present

International Studies Certificate

- 1) Satisfactory completion of the language requirements for the degree program in which the student is enrolled.
- 2) **PolSci 180, World Politics.**
- 3) A total of 12 hours from at least **three** of the following nine areas:

Area 1: Anthropology

- 201, Comparative Economic Behavior
- 202, Culture, Politics, and Social Organization

Area 2: Biology

- 120, Environmental Biology

Area 3: Business Administration

- 316, International Marketing
- 317, International Management
- 380, International Finance

Area 4: Communication

- 332, Intercultural Communication
- 354, Comparative Telecommunication Systems
- 356, International Communication

Area 5: Economics

- 230, International Economic Analysis
- 231, International Finance
- 238, Comparative Economic Systems
- 331, International Economic Analysis: Finance

Area 6: Geography

- 102, World Regions

Area 7: History

- 345, Europe 1763 - 1871, Revolution, Reaction and Reform
- 347, Europe in the Belle Epoque (1870-1914)
- 348, Europe 1900 - 1950: War and Upheaval
- 349, Europe, 1950 - Present: Peace and Prosperity

Area 8: Political Science

- 80, Global Issues
- 282, United States Foreign Policy
- 285, International Organizations and Global Problem Solving

International Studies

- 289, Middle Eastern Politics
- 385, International Law
- 386, Studies in War and Peace
- 388, Studies in International Relations

Area 9: Sociology

- 314, Social Change
- 342, World Population and Ecology
- 354, Sociology of Business and Work Settings

International Business Certificate

1) Students must complete a minimum of 12 hours in the Business Internship Program in London or in some other approved overseas study program.

2) One course from Area 1 and one from Area 2, a total of six hours.

Area 1: Business Administration:

- 316, International Marketing
- 317, International Management
- 380, International Finance

Area 2: International Studies:

- Anthro 238:** Culture and Business in East Asia
- Econ 230:** International Economic Analysis
- Econ 231:** International Finance
- Econ 238:** Comparative Economic Systems
- Econ 240:** Economic Development
- PolSci 283:** International Political Economy
- PolSci 388:** Studies in International Relations. (International Relations of East Asia)
- Sociology 241:** Selected Topics in Macro-sociology. (Work and Industry in Japan)
- Sociology 354:** Sociology of Business and Work Settings

In lieu of a course from Area 2, students may substitute one course (3 hours) at the advanced level of a foreign language. Advanced level is defined as a course beyond the 13 hour introductory language sequence.

3) An independent study course is not required for this certificate option.

Note: Students participating in other approved overseas study programs such as Hogeschool Holland Business School, Ecole Superieure de Commerce de Saint Etienne, or Université Jean Moulin, may also qualify to apply 12 credit hours toward the International Business Certificate.

International Studies Certificate Graduate

A Graduate Certificate in International Studies is a program of study featuring advanced, multidisciplinary course work designed for individuals, including teachers and other professionals, who wish to expand their knowledge and understanding of international and cross-cultural affairs. The Certificate is sponsored by

the Center for International Studies, and the Departments of Economics, History, Foreign Languages and Literatures, and Political Science. A broad set of course offerings is available in these and other departments, with the flexibility for students to tailor the program to their particular interests and needs. The program has been developed as a vehicle for bringing together the resources of a distinguished faculty in international studies and for providing an opportunity for further graduate learning.

Applicants to the Certificate program must meet the general requirements for admission to Graduate School as explained in the graduate study section of this Bulletin. The Certificate is awarded after completion of 18 hours, including a minimum of 12 hours drawn from a list of core courses and an additional six hours selected from a wide variety of offerings in eight different disciplines. No more than 12 hours may be from any one discipline. Students may simultaneously earn a graduate degree and count credits earned in their degree program toward the Certificate when appropriate.

Requirements

Students must complete at least 12 hours chosen from the following list of core courses:

Anthropology

- 425, Peoples and Cultures of Southeast Asia
- 430, Global Refugee Crisis

Business Administration

- 416, International Finance, Investment, and Commercial Relations
- 443, International Accounting

Economics

- 430, International Trade
- 431, International Monetary Analysis

History

- 410, Readings in European History to 1715
- 415, Readings in European History Since 1715
- 420, Readings in East Asian History
- 425, Readings in Latin American History
- 430, Readings in African History

Political Science

- 450, Proseminar in Comparative Politics
- 451, Seminar in Comparative Politics
- 480, Proseminar in International Relations
- 481, Seminar in International Relations
- 488, Studies in International Relations

Sociology

- 410, Comparative Social Structures

Students may complete an additional six hours chosen from the following:

Business Administration

- 316, International Marketing
- 317, International Management
- * 380, International Finance

* **Note:** Students may not count both Bus. Admin. 416 and 380.

International Studies

Communication

- 332**, Intercultural Communication
- 354**, Comparative Telecommunication Systems
- 356**, International Communication

Criminology and Criminal Justice

- 305**, Comparative Criminology and Criminal Justice

Economics

- 331**, International Economic Analysis: Finance
- 395**, Special Readings

English

- 323**, Continental Fiction

History

- 314**, American Foreign and Military Affairs, 1900-Present
- 320**, History of Feminism in Western Society
- 345**, Europe 1763 - 1871 Revolution, Reaction and Reform
- 347**, Europe in the Belle Epoque (1870 - 1914)
- 348**, Europe 1900-1950: War and Upheaval
- 349**, Europe, 1950-Present: Peace and Prosperity
- 351**, Contemporary France: Since 1870
- 352**, Germany in the Modern Age
- 353**, Russian History to 1917
- 354**, History of Russia from 1917-Present
- 355**, History of Spain
- 361**, Modern Japan: 1850 to Present
- 362**, Modern China: 1800 to Present
- 372**, History of Latin America: Since 1808
- 381**, West Africa: Since 1800
- 382**, History of Southern Africa
- 390**, Special Readings

Foreign Languages and Literatures

- French 362**, Nineteenth-Century French Novel
- French 365**, Modern French Poetry
- French 371**, Twentieth-Century French Novel
- French 375**, Modern French Theatre
- German 315**, German Classicism and Romanticism
- German 320**, German Realism and Naturalism
- German 345**, Modern German Literature
- German 398**, Survey of German Literature Part II

Spanish 310, Spanish Literature from 1898-1939

Spanish 315, Spanish Literature from 1939 to Present

Spanish 320, Realism and Naturalism in the Nineteenth-Century Spanish Novel

Spanish 321, Poetry and Drama of the Nineteenth Century

Spanish 340, Spanish-American Literature of the Nineteenth Century

Spanish 341, Modernismo

Spanish 345, Spanish-American Literature of the Twentieth Century

Spanish 351, Spanish-American Fiction in the Twentieth Century

Spanish 360, Spanish-American Poetry from Modernismo to the Present

Music

325, Music of the Romantic Period

326, Music of the Twentieth Century

Political Science

351, Comparative Public Policy and Administration

359, Studies in Comparative Politics

385, International Law

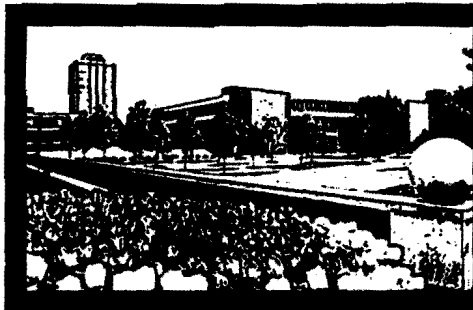
386, Studies in War and Peace

388, Studies in International Relations

485, Directed Readings and Research in International Relations

Sociology

342, World Population and Ecology



College of Nursing**Faculty**

Jerry Durham, Dean; Professor*
Ph.D., St. Louis University

Connie K. Koch, Assistant Professor*; Associate Dean
Ed.D., Southern Illinois University-Edwardsville

Dotty Akerson, Clinical Associate Professor
MSN, St. Louis University

Janice M. Attala, Associate Professor*
Ph.D., Southern Illinois University-Carbondale

Margaret Jean Auffarth, Clinical Assistant Professor
MSN, University of Missouri-Kansas City

Jean Bachman, Associate Professor*, Director for
Graduate Affairs
D.S.N., University of Alabama

Bertha Carter-Simmons, Clinical Assistant Professor
MSN, FNP St. Louis University

Anna J. Biggs, Clinical Professor*
Ph.D., University of Colorado

Deborah Birk, Clinical Assistant Professor
MSN, Southern Illinois University-Edwardsville

Donna Bridgman Musser, Clinical Assistant Professor
M.S.N., Southern Illinois University-Edwardsville

Wilma Calvert, Clinical Assistant Professor
MSN, University of Oklahoma

Virginia Drake, Associate Professor*
DNSc, Catholic University of America

Gretchen Drinkard, Clinical Associate Professor
MSN, FNP, University of Missouri-Columbia

Peggy A. Ellis, Clinical Associate Professor,
Ph.D., ANP, FNP, Southern Illinois University-Carbondale

Marianne Fox, Clinical Assistant Professor
MSN, Webster University

Patricia Freed, Assistant Professor*
EdD, Southern Illinois University-Edwardsville

Kay Gaehle, Clinical Assistant Professor
MSN, St. Louis University

Dawn Garzon, Clinical Instructor
MSN, PNP, University of Florida

Ruth L. Jenkins, Associate Professor*
Ph.D., St. Louis University

Susan M. Kendig, Clinical Assistant Professor, MSN,
WNP, University of Missouri-Kansas City

Roberta K. Lee, Hubert C. Moog Endowed Professor of
Nursing, Dr. PH, University of Texas-Houston

Gail Lewis, Clinical Associate Professor
MSN, University of Nebraska

Sandy Lindquist, Clinical Associate Professor*
Ph.D., St. Louis University

Nancy Magnuson, Student Health Administrator and
Clinical Professor
DSN, University of Alabama at Birmingham

Shirley A. Martin, Dean; Professor Emeritus*
Ph.D., St. Louis University

Judith Maserang, Clinical Professor*
Ph.D, St. Louis University

Maryellen McSweeney, Professor*
Ph.D., University of California-Berkeley

Shirley Moore, Associate Professor*
Ph.D, St. Louis University

Teri Murray, Clinical Assistant Professor*
Ph.D., St. Louis University

Jean Nelson, Clinical Assistant Professor
MSN, Southern Illinois University-Edwardsville

Robyn Rice, Clinical Associate Professor
MSN, Southern Illinois University-Edwardsville

Linda Sherman, Clinical Associate Professor
MSN, Southern Illinois University-Edwardsville

Linda Steele, Clinical Professor*
Ph.D, ANP, University of Texas at Austin

Mary Jo Stralka, Clinical Associate Professor*
Ph.D, PNP St. Louis University

Margaret Ullone, Assistant Professor*
Ph.D., University of Maryland

Carol W. Trotter, Adjunct Assistant Professor**
RNC, MPH, NNP

Lyn Vargo, Adjunct Assistant Professor**
RNC, MSN, NNP

* Members of Graduate Faculty

**Affiliated Adjunct Faculty

General Information

Barnes College of Nursing offers nursing studies at the undergraduate and graduate levels. Knowledge and skills needed to complete the professional licensure examination to become a registered nurse are available through a basic baccalaureate option. Nurses who have obtained their basic nursing education through associate degree or diploma nursing programs may complete the BSN Completion option without repetition of previous nursing education. The Master of Science in Nursing program is offered in cooperation with the School of Nursing at University of Missouri-Kansas City. The Ph.D. in Nursing is offered in cooperation with the Schools of Nursing at University of Missouri-Columbia and Kansas City. Admission to the Ph.D. is available at the post BSN and MSN levels.

Undergraduate Studies

The Barnes College of Nursing provides course work leading to the Bachelor of Science in Nursing. The program is accredited by National League for Nursing and the Missouri Board of Nursing. The undergraduate program offers two means for achieving the bachelor's degree in nursing: studies which are preparatory for completion of the professional nurse licensure examination (basic undergraduate); advanced placement for the professional registered nurse without repetition of fundamental nursing courses (B.S.N. Completion).

Admission Policies**Basic Baccalaureate**

First time freshman or students with less than 25 college credits:

- 1) Admission to the University (see Undergraduate Admission and Application Procedure section in this *Bulletin*);
- 2) Cumulative high school grade point average of 2.5 (4.0 scale);
- 3) Rank in upper third of high school class;

College of Nursing

- 4) ACT score of 21 or higher
- 5) High school course work required in Chemistry and Biology
- 6) "B" average preferred for high school course work in English Composition, Algebra I and II, Geometry, Chemistry, and Biology.

Students with 24 or more college credit hours:

- 1) Admission to the University (see Undergraduate Admission and Application Procedure section in this *Bulletin*);
- 2) Minimum cumulative grade point average of 2.5 (4.0 scale).

B.S.N. Completion

- 1) Admission to the University (see Undergraduate Admission and Application Procedure section in this *Bulletin*);
- 2) Graduate of either an accredited diploma or associate degree program in nursing;
- 3) Evidence of current licensure as a registered nurse with eligibility for licensure in Missouri;
- 4) Cumulative grade point average of 2.5 (4.0 scale)* on all previous college-level course work;
- 5) Minimum of 30 hours of college credit applicable to a degree.
- 6) Validation of basic nursing knowledge (total of 30 credits granted).**

*Cumulative GPA of 3.0 required of individuals seeking accelerated access to MSN option.

**Graduates of diploma nursing programs will be awarded 30 college credits for successful validation of basic nursing knowledge as part of the admission process. A processing fee is assessed for this procedure.

Students are required to furnish their own transportation to and from campus and clinical agencies. Students must have automobile access for all community experiences throughout the program. For specific information regarding the B.S.N. degree program, please contact Nursing Student Services and Records office at (314) 516-6066 or 1-888-NURSUM.

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

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 basic baccalaureate program can be completed in four academic years. BSN Completion course work is concentrated in an evening format and includes theory, on-campus laboratory and community-based clinical

activities.

Satisfactory/Unsatisfactory

Undergraduate nursing majors may not take required related area general education or nursing courses on a satisfactory/unsatisfactory basis.

General Education Requirements

Nursing majors must complete all general education requirements of the University as outlined in this *Bulletin* (see Undergraduate Studies, General Education Requirements).

Within the general education requirements, the following are related area requirements for the nursing major. See a curriculum planning guide for specific courses and proper sequencing.

1) Natural science course work

Biology 113, Human Physiology and Anatomy I
Biology 114, Human Physiology and Anatomy II
Biology 116, General Microbiology
Chemistry for Health Professions (or equivalent)

2) Behavioral science course work

Sociology 10, Introduction to Sociology
Psych 3, General Psychology
Psych 268, Human Growth and Behavior
Econ 40, Introduction to American Economy

3) Humanities

Philosophy course

Nursing Course Work Requirements

Basic Baccalaureate

100 Introduction to the Nursing Discipline
103 Nutrition and Health
104 Foundations in Nursing and Health*
105 Communication in the Nursing Profession
106 Assessment of Clients in Health and Illness
110 Pathophysiological Bases of Nursing Practice
111 Pharmacotherapeutics in Nursing Practice
205 Adult Health Nursing I*
206 Adult Health Nursing II*
207 Information Management in Nursing*
214 Psychiatric Mental Health Nursing
215 Nursing of Women & Childbearing Families*
216 Child and Family Health Nursing*
300 Community Health Nursing*
304 Ethical and Legal Dimensions of Nursing Practice
306 Nursing Research
308 Management and Leadership in Nursing
310 Senior Seminar*

BSN Completion

200 Dimensions of Professional Nursing*
217 Information Systems Utilized in Health Care*
220 Health Assessment*
236 Families and Communities*
306 Nursing Research
340 Synthesis in Nursing Practice*
 Nursing Elective

* Includes a laboratory and/or clinical component

College of Nursing

Graduate Studies

Cooperative Graduate Programs in Nursing

Master of Science in Nursing

The College of Nursing at St. Louis, in cooperation with the School of Nursing at University of Missouri-Kansas City, offers graduate nursing studies in three areas of clinical specialization:

Health Care of the Adult; Health Care of Children; Health Care of Women.

This graduate program offers students two ways of completing the Master of Science in Nursing Degree: one means is through completion of a minimum of 36 credit hours with functional role emphasis in administration, education, or clinical specialization; the second concentrates on the functional role of practitioner with completion of a minimum of 43 credit hours. Those selecting the practitioner functional role option will be eligible to complete national certification examinations.

Admission Requirements

Applicants must meet the following:

- 1) B.S.N. from NLN-accredited nursing program or B.S.N. program comparable to UM-St. Louis College of Nursing's B.S.N. program.
- 2) Minimum cumulative grade point average of 3.0 (4.0 scale).
- 3) Current professional nurse licensure with eligibility for licensure in Missouri.
- 4) Basic cardiac life support certification.
- 5) Successful completion of an undergraduate descriptive and inferential statistics course.
- 6) Successful completion of an undergraduate health assessment course.
- 7) Nurse practitioner functional option is available on a limited basis and requires a two-step admission process: initial admission to the M.S.N. followed by application to the practitioner functional role.

Degree Requirements

Core Courses (completed by all students)

- *404, Health Assessment for Advanced Nursing Practice
- 445, Foundations of Advanced Nursing Practice
- 448, Pathophysiology for Advanced Nursing Practice
- 450, Theoretical Foundations in Nursing
- 455, Quantitative Methods in Nursing Research
- *472, Advanced Practice Nursing: Synthesis Practicum

Emphasis Courses* (Students must complete one course from each focal area.)

Health Promotion Focus

- 460A, Health Promotion and Protection in Adult Health Nursing
- 460C, Health Promotion in the Nursing Care of Children
- 460W, Women's Health Care I

Acute and Chronic Nursing Care Focus

- 461A, Acute and Chronic Adult Health Nursing
- 461C, Acute and Chronic Child Health Nursing
- 461W, Women's Health Care II

Functional Role Courses

Role Foundation (Students must complete one course.)

- 471NA, Role of the Nurse Administrator
- 471NE, Role of the Nurse Educator
- 471NS/NP, Role of the Clinical Specialist/Nurse Practitioner

Role Enactment (Practitioner functional role only)

- *464, Ambulatory Care Management
- 407, Pharmacology for Advanced Nursing

Elective (Completed by all students)

Students complete three hours which support the chosen functional role. Course work may be taken within the College of Nursing or from an approved list available from the Student Services Office in the College of Nursing.

Culminating Research Activity

(All students complete seminar course. Students choose either project or thesis.)

- 477, Thesis/Directed Research Seminar
 - 478, Directed Research
 - 479, Research Thesis
- *Includes a clinical component

Ph.D. in Nursing The College of Nursing at St. Louis, in cooperation with the Schools of Nursing at Columbia and Kansas City, offers doctoral studies in three substantive areas:

Health Promotion and Protection—Addresses modes of delivery in nursing that are supportive-educative, encompassing concepts which promote and maintain health as well as concepts which focus on reducing risk for injury or illness.

Health Restoration and Support—Addresses human responses to acute, critical, and chronic health conditions.

Health Care Systems—Focuses on nursing and health care systems with both health promotion and protection, and health restoration and support considered.

College of Nursing

The Ph.D. is designed to promote scholarly inquiry within the discipline of nursing. Each program of study is individualized to best reflect the research interests of the student. Course work in research and inquiry, nursing theory and analysis, and nursing applied science are focal in the program.

Admission Requirements

Applicants must meet the following:

- 1) Graduate of NLN Baccalaureate program or equivalent with 3.2 minimum GPA (4.0 scale).
- 2) Graduate of NLN Master's program or equivalent with 3.5 minimum GPA (4.0 scale).
- 3) Graduate Record Examination (composite score of 1500 or better desired).
- 4) Three letters of reference.
- 5) Original essay (3-7 pages) addressing doctoral study and research interests related to Health Promotion and Protection, Health Restoration and Support, and/or Health Care Systems.
- 6) Interview by invitation contingent on ranking related to above criteria.

Degree Requirements

While each program of study is individualized, B.S.N graduates complete a minimum of 60 hours of graduate level course work. MSN graduate course work which supports the chosen substantive area is individually evaluated to determine eligibility for transfer. The following defines the overall structure of the program:

Modes of Inquiry

Research and Inquiry, 8-16 hours external to the College of Nursing, such as advanced statistics, research design, computer applications, philosophical foundations of science.

Nursing Research and Inquiry, 8-16 hours within the College of Nursing, such as advanced quantitative nursing research design, advanced qualitative nursing research design, health survey methods, issues in research design, doctoral seminar.

Dissertation, 12 hours.

Nursing Content Areas

Nursing Theory Analysis and Development, 8-16 hours within the College of Nursing which advance the chosen substantive area, such as conceptual structures, nursing practice models, theory development, theoretical foundations, doctoral seminar.

Nursing Applied Sciences, 8-16 hours within selected substantive area.

Collateral Support Courses, 12 hours external to the College of Nursing which support selected substantive area.

Professional Organizations

American Nurses Association

Students, as registered nurses, are eligible for membership in the American Nurses Association. Membership and participation in this professional organization is strongly urged for all nurses practicing today. Nurses, as the largest group of health professionals, have a responsibility to assume leadership positions in the determination of health care policy, and this activity can best be accomplished by participating in the professional organization.

Sigma Theta Tau

The College is an official chapter—Nu Chi—of Sigma Theta Tau International Honor Society. Membership is offered by invitation to those students graduating the upper third of their class and to those 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 this organization is to provide a means for nursing students in the basic baccalaureate program the opportunity to connect with the nursing profession prior to licensure.

Continuing Education-Extension

Continuing education offerings in the field of nursing are currently presented to provide nurses with new information, techniques, and trends within the nursing profession.

Credit courses which will apply to the B.S.N. program are offered at various off-campus sites.

College of Nursing

Course Descriptions

All previous level nursing courses must be successfully satisfied prior to progressing to the next level nursing courses.

100 Introduction to the Nursing Discipline (3)

This course introduces the historical and theoretical development of nursing as a discipline. Nursing is examined as an emerging practice profession. Variables that influence nursing and health care are discussed. Concepts and skills introduced in this course guide the student's educational experience within the nursing major.

103 Nutrition and Health (3)

This course examines the nutritional needs throughout the life span with emphasis on nutritional principles related to health promotion and protection. Content includes assimilation, digestion and absorption of nutrients and cultural and economic influences on dietary practices.

104 Foundations in Nursing and Health (5)

Prerequisite: Biology 113, 114 and 116; Chemistry for Health Professions (or equivalent), Nursing 100, 106 may be taken concurrently. This course emphasizes critical thinking, the teaching-learning process, and foundational practice concepts. Through modular laboratory opportunities, the student acquires the basic psychomotor skills necessary to provide safe and effective nursing care to clients experiencing common physiological alterations in health. This course includes classroom, laboratory and clinical experiences.

105 Communication in the Nursing Profession (2)

Prerequisite: Nursing 100. This course focuses on the development of communication abilities utilized in professional nursing. The individual's relationship with self, others and groups is discussed. Students learn verbal and non-verbal communication skills self-awareness, and sensitivity to others. Interpersonal skills are introduced to enable the student to develop effective human caring relationships with a diverse population of clients and colleagues.

106 Assessment of Clients in Health and Illness (3)

Prerequisite: Biology 113 and 114; Nursing 104, 105, and 110 may be taken concurrently. This course integrates theoretical knowledge and interpersonal skills in the assessment of clients, focusing on differentiating normal from abnormal findings. It emphasizes the use of problem solving, critical thinking and cultural competency in identifying multidimensional health variations across the life span. The course includes classroom and laboratory experiences.

110 Pathophysiological Bases of Nursing Practice (3)

Prerequisite: Biology 113, 114, 116 and Chemistry for Health Professionals or equivalent. This course focuses on the nature of disease, its causes and the bodily changes that accompany it. The course includes a study of general principles of disease, specific diseases of individual organs and systems and the clinical implications.

111 Pharmacotherapeutics in Nursing Practice (3)

Prerequisite: Biology 113, 114, 116 and Chemistry for Health Professionals (or equivalent); Nursing 110 [may be taken concurrently]. This course introduces key terminology, legal foundations, general principles and clinical applications of pharmacology.

200 Dimensions of Professional Nursing Practice (6)

Prerequisites: Admission to the College of Nursing as RN. This transition practicum course for the registered nurse who successfully completed an associate degree or diploma nursing program investigates the roles and responsibilities of the professional nurse within a rapidly changing health care system. Key issues are explored with emphasis on health promotion and primary prevention.

205 Adult Health Nursing I (5)

Prerequisite: All 100 level nursing courses, Psych 268. This course focuses on the nursing care of the adult experiencing selected pathophysiological processes affecting body regulatory mechanisms. These mechanisms are related to immune responses, problems of oxygenation, ventilation, transport and perfusion; kidney function; regulatory mechanisms and digestion, absorption and elimination. Emphasis is placed on health restoration, maintenance and support as well as the continued development of the nurse-client relationship, critical thinking processes, and research-based nursing practice. This course includes classroom and clinical activities in a variety of settings.

College of Nursing

206 Adult Health Nursing II (5)

Prerequisite: All 100 level nursing courses, Psych 268. This course focuses on the nursing care of the adult experiencing selected pathophysiological processes affecting body regulatory mechanisms. These mechanisms are related to endocrine, sensory-perceptual, gynecological, and genitourinary functions. Emphasis is placed on health restoration, maintenance and support as well as the continued development of the nurse-client relationship, critical thinking processes, and research-based nursing practice. This course includes classroom and clinical activities in a variety of settings.

207 Information Management in Nursing (2)

Prerequisite: All 100 level nursing courses. This course provides an overview of applications of computers in nursing and health care. The course introduces historical, social, legal, ethical, and organizational issues and problems involved in computerized health care environments. The use of computers to organize, access, retrieve and manipulate data, generate reports and communicate electronically is emphasized.

214 Psychiatric Mental Health Nursing (5)

Prerequisite: All 100 level nursing courses; Nursing 205, 206 [may be taken concurrently]. This course focuses on health and illness across the lifespan of clients who have acute and chronic emotional and psychosocial difficulties and psychiatric illnesses. The course emphasizes development of students' decisional capabilities, self-awareness and professional behaviors as they utilize theory and research from nursing, psychology and related disciplines for the provision of nursing care to individuals, families and groups. Clinical experiences in community and acute care settings are designed for students to engage in individual and group strategies that promote and maintain mental health. Course includes classroom and clinical activities in a variety of settings.

215 Nursing of Women and Childbearing Families (4)

Prerequisite: All 100 level nursing courses. This course focuses on the childbearing family and women's reproductive health, including family dynamics and growth and development. Health promotion, protection, maintenance and restoration are covered in experiences that include hospital and community settings. Health care policy and systems as relevant to these populations are included. Course includes classroom and clinical activities in a variety of settings.

216 Child and Family Health Nursing (4)

Prerequisite: all 100 level nursing courses; nursing 205 or 206 [may be taken concurrently]. This course focuses on pediatric health and illness with emphasis on family dynamics, growth and development and communication with children and their families. Health promotion, protection, restoration, maintenance and support concepts are covered in experiences that include hospital and community settings. Health care policy and systems are studied as relevant to this population. Course includes classroom and clinical activities in a variety of settings.

217 Information Systems Utilized in Health Care (4)

Prerequisite: Admission to College of Nursing as an RN or consent of instructor. This laboratory course establishes competency in health information systems. The course incorporates the impact of information systems on health care delivery.

220 Health Assessment (4)

Prerequisites: Nursing 200 and Nursing 217. This laboratory course focuses on the knowledge, communication abilities, and technical skills necessary for comprehensive assessment of individuals of all ages.

224 Marriage and the Family (3)

(Same as Sociology 224.) Prerequisite: Sociology 10 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.

232 Human Caring in Illness: Threats to Functional, Integrative and Growth-Seeking Needs (8)

Prerequisites: All sophomore level nursing courses. Explores the application of caring factors to children and adults experiencing pathophysiologic and psychopathologic processes related to growth and development, functional abilities, and integrative components. Includes a clinical component.

236 Family and Community Nursing (6)

Prerequisites: Nursing 200, 217 and 220. This practicum course introduces the concepts, principles, skills, and professional nursing roles essential to practice community-based professional nursing with families and groups.

240 Ethics of Human Caring (3)

Prerequisites: Nursing 102; Philosophy course; or consent of instructor. Focuses on examination of ethical dimensions of professional nursing practice with exploration of applied nursing ethics, moral development, ethical theories and principles, and moral reasoning.

College of Nursing**300 Community Health Nursing (4)**

Prerequisite: Nursing 205, 206; Nursing 214, 215, and 215 [may be taken concurrently]. This course provides a conceptual foundation for nursing that recognizes the community as client in society. The course examines socioeconomic, environmental, epidemiological, and legislative influences, ethical/legal issues, and the impact of health beliefs and practices on health promotion and protection in communities and society. The student applies various theories and concepts when encountering families, groups and communities with diverse value systems and cultural backgrounds. Course includes classroom and clinical activities in a variety of settings.

306 Nursing Research (3)

Prerequisite: Nursing 373, 205, 206. This course introduces the values and characteristics of quantitative and qualitative research within an ethical perspective. Students examine the research process through analysis and critique of nursing research.

308 Management and Leadership in Nursing (3)

Prerequisite: Nursing 300; Economics elective. This course prepares the nurse to coordinate and manage client care in diverse health care settings. Emphasis is placed on leadership and management theory and related skills, collaboration, delegation, coordination, and evaluation of multi-disciplinary work and the application of outcome-based nursing practice.

310 Senior Synthesis (5)

Prerequisite: all required 200 level nursing courses, Nursing 300, 304, and 306; Nursing 308 (may be taken concurrently). This course integrates theory and practice from previous nursing and general education courses with the goal of preparing the student for entry into professional nursing practice. Within a seminar context, students explore a variety of clinical and professional nursing topics. The course includes research-based strategies utilized for health promotion and protection, health restoration, maintenance and support. Areas of study are selected from across the lifespan, including diverse populations in a variety of health care systems. Course includes classroom and clinical experiences in a variety of settings. Not for graduate credit.

320 Perioperative Nursing (2)

Prerequisite: Consent of instructor. Provides experiences in preoperative, intraoperative, and postoperative settings. Includes a clinical component.

322 Transcultural Nursing (3)

Prerequisite: Consent of instructor. Examines transcultural nursing concepts, theories and practices in relationship to human caring. Focuses on application and analysis of health care and scope of practice within selected cultural contexts. Includes practicum experiences.

325 Education and the Psychology of Human Sexuality(3)

(Same as Ed Psy 325). The course is designed to provide educators and other human services personnel with knowledge and understanding of various personal and social dimensions of human sexuality.

332 Dimensions of Health Care: Implications for Professional Nursing Practice (3)

Prerequisite: Completion of junior-level nursing courses or consent of instructor. Legislative, legal, economic and bioethical concepts are explored as they impact professional nursing practice and health care delivery in a changing society.

338 Sociology of Health (3)

(Same as Sociology 338.) Prerequisites: Sociology 10 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.

340 Synthesis in Nursing Practice (6)

Prerequisites: Completion of all junior level classes; Corequisite: Nursing 326 or equivalent, Nursing 350. This practicum course focuses on community-based application and synthesis of professional nursing roles and responsibilities with selected populations determined to be at risk for a variety of health related problems. The course includes assessment of cognitive and affective growth achieve while in the BSN Completion Program.

341 Advanced Nursing Assessment and Management of Clients with Cardiac Dysrhythmias (3)

Prerequisite: Senior status. Focuses on advanced nursing assessment and management of clients with cardiac rhythm problems and conduction disturbances. Includes a clinical component.

345 Management of Clients with Complex Needs (8)

Prerequisites: All junior level nursing courses. Synthesizes human caring and human science in developing megastrategies that address the complex needs of persons. Includes a clinical component.

350 Contemporary Nursing Issues (2)

Prerequisites: Nursing 316, 326, 332, and 340 (may be taken concurrently). Analyzes the development of the professional nursing role in the health care delivery system in contemporary and future society. (This course must be taken in the student's final semester.)

352 Primary Care Nursing (3)

Prerequisites: Completion of all junior level courses; Corequisite: Nursing 340. This course introduces the role of the advanced practice nurse as a principal provider of primary health care to families across the life span. Major issues relate to health care provided in a variety of community settings are addressed.

College of Nursing

355 Leadership in Health Care Delivery Systems (8)

Prerequisites: All junior level nursing courses. Explores a conceptual foundation for community health nursing that recognizes community as client. Studies human caring related to leadership and management roles of the nurse in health care institutions and the community. Includes a clinical component.

360 Nursing Seminar (3)

Prerequisite: All required Junior level Nursing courses and Senior status. Explores current issues related to health care delivery and nursing practice through review of professional literature, group presentations, and discussions.

365 Women's Issues in Health Care (3)

This course is open to nursing majors and other persons interested in women's issues in health care. This seminar offers students the opportunity to explore women's issues in health care from the perspectives of both providers of health care and consumers of health care. Wellness, rather than pathology, is the emphasis of discussion of specific health care issues related to women. Student interest will determine specific issues to be examined.

370 Topics in Nursing (1-3)

Prerequisite: Consent of instructor. Explores special topics in the areas of clinical practice, nursing education, nursing administration, and professional development. No more than six hours may be taken under this option.

373 Quantitative Analysis in the Health Sciences (3)

Prerequisite: Math 30 or equivalent. This course focuses on concepts and applications of statistics in the health sciences. Topics include descriptive and inferential statistics, probability distributions of random variables, sampling and estimation. The course uses examples and content from health sciences to provide the basic concept structure for quantitative analysis.

376 Child Assessment: Denver II (2)

This course identifies principles of growth and development and trains persons to be screeners using the Denver II. The Denver II is a general developmental screening test that primarily evaluates personal-social ability, fine motor-adaptive skills, language, and gross motor skills. To a lesser extent, Denver II is used as a very rough gauge of speech intelligibility, hearing, and vision. This screening instrument is currently used on all Medicaid children and in the Parents as Teachers program.

385 Family Health Behavior (3)

Prerequisite: Nursing 445; or consent of instructor. This course considers various theoretical perspectives and research approaches for studying and providing nursing care to families over the life cycle (from childbearing families through aged families). Attention is given to theoretical and methodological issues related to family nursing and research from a family perspective.

399 Guided Study in Nursing (1-3)

Prerequisite: Consent of instructor. This course is an in-depth independent study of selected topics in nursing under the guidance of a specific instructor. No more than six hours may be taken under this option.

401 Health and Wellness in the Elderly (3)

Prerequisite: Graduate standing and consent of instructor. (Same as Gerontology 401) Factors contributing to longevity and health in old age, including genetic predisposition, lifestyle, culture, and environment are related to aspects of maintaining health and promoting wellness. Through a holistic approach, explores aspects of nutrition, exercise and activity, prevention of hazards to health, maintaining self-responsibility, managing stress, and meeting continued developmental, emotional and spiritual needs. Considers cross-disciplinary interventions to promote health and wellness in the elderly. Introduces the "Putting Prevention into Practice" model adapted to health promotion in the elderly.

404 Health Assessment for Advanced Nursing Practice (3)

Prerequisite: Undergraduate Health Assessment and successful validation of basic assessment skills. This course is designed to provide a systematic approach to the advanced assessment of physiological, psychological, sociocultural, developmental and spiritual assessment of individuals across the lifespan. This course builds on basic health assessment knowledge and skills, emphasizing advanced assessment skills, laboratory work interpretation, validation, documentation and analysis of assessment findings.

405 Values in Health Care Decision Making (2)

Prerequisite: Admission to MSN program. This course explores values and beliefs as they shape professional nursing practice and influence clinical decision making. The course includes analysis of health care systems and how the values underpinning these systems influence nursing interventions and nursing care delivery.

406 Policy, Organization and Financing in Health Care (2)

Prerequisite: Admission to MSN program or consent of instructor. This course presents an overview of health care policy, organization and financing and how they impact professional nursing practice. Attention is given to the relationship between current health care trends and improving nursing health care delivery and client care outcomes.

College of Nursing

407 Pharmacology for Advanced Nursing Practice (3)

Prerequisite: Nursing 445 (may be taken concurrently) or consent of instructor. This course centers on clinical pharmacotherapeutics used for primary health care management. Emphasis is placed on the clinical use of drugs in the management of specific illnesses.

408 Health and Society (2)

Prerequisite: Admission to the MSN program. This course addresses issues relevant to developing an understanding of the wide diversity of cultural influences on human behavior, including ethnic, racial, gender, and age differences. Emphasis is on recognizing and appropriately addressing comprehensive health care needs and implications for nursing interventions.

409NA Role of the Nurse Administrator (2)

Prerequisite: Admission to the MSN program. This course builds on the fundamentals of advanced nursing practice by focusing on the sub-role of the nurse administrator. Content focuses on essential knowledge for today's senior and executive level nurse managers in health care.

409NE Role of the Nurse Educator (2)

Prerequisite: Admission to the MSN program. This course facilitates development of the nurse educator role in a variety of settings. Knowledge and skills essential for the enactment of the nurse educator role are provided.

409NS/NP Role of the Clinical Nurse Specialist/Nurse Practitioner (2)

Prerequisite: Admission to the MSN program. In this course, the student explores professional role issues affecting advanced practice nurse (APNs). The course facilitates the role development of nurses who desire to function as primary care providers (nurse practitioners) or as specialists within a particular clinical area (clinical nurse specialists). Core concepts include: communication, collaboration, advocacy, negotiation, standards of practice, and subroles of advanced nursing practice.

410 Health Promotion Across the Life Span (3)

Pre or corequisite: Nursing 411, and any three of the following: Nursing 405, 406, 408, 409 (NA, NE, or NS/NP). This course is designed to provide students with a conceptual basis of health promotion and health protection for clients across the life span. Clients are conceptualized as individuals, families and populations. An application of various developmental theories for the child, adult, older adult, and family will provide the basis to individualize health care needs for various age and family groups. Core concepts include theories of health, health promotion and protection, epidemiology, disease and injury prevention, health education, growth and development, nutrition, and family systems theory.

411 Theoretical Foundations in Nursing (3)

Prerequisite: Admission to the MSN program. This course analyzes major concepts and theories relevant to nursing. Ethical issues and dilemmas inherent in advanced nursing practice are also addressed.

412 Quantitative Methods in Nursing Research (3)

Prerequisites: Nursing 373 or equivalent; Nursing 411 (may be taken concurrently). This course provides the principles and techniques common to scientific investigation as applied to nursing. A plan of study for a nursing problem is developed.

415 Conceptual Structure of Nursing (3)

Prerequisites: Admission to PhD in Nursing Program or consent of instructor. This course focuses on the discipline of nursing including the substantive content as expressed in theoretical systems and the development of this substantive content through scholarly inquiry. The evolution and state of the art of conceptual and theoretical development in nursing are examined. One nursing theory is studied in depth to illustrate the process of theory development. Concept mapping showing relationships between and among terms is accomplished.

416 Nursing Practice Theories and Models

Prerequisites: Admission to PhD in Nursing program or consent of instructor and N 415 or N481. This course focuses on the development of nursing practice theory, and nursing practice models, from the perspective of various populations and other theories. Nursing protocols, procedures, rules of practice, and systems for delivering care for selected populations or sub-populations are developed.

421 Child Growth and Development (3)

Prerequisite: Basic course in child growth and development or consent of instructor. Seminar discussions in child growth and development and child rearing practices as influenced by cultural, family, and organic conditions. Theories of growth and development, normal development, variation from normal and the use of current developmental screening methods are included.

448 Pathophysiology for Advanced Nursing Practice (3)

Prerequisite or corequisite: Nursing 445. This course focuses on implications for advanced nursing practice through examination of selected pathophysiological phenomena which occur frequently in the diverse populations to whom advanced nurses provide care.

451 Nursing Assessment of the Elderly (3)

Prerequisite: N404. Practice in adaptations of the traditional health history and physical examination of adults is addressed in this course focusing on the elderly. This is a clinical course, requiring a geriatric physician or advanced practice nurse preceptor.

College of Nursing

457 Qualitative Methods in Nursing Research (3)

Prerequisites: Nursing 450; 455 or equivalent. This course introduces the skills necessary to understand and conduct qualitative research in nursing. Emphasis is placed on utilization of qualitative research methods in the study of selected nursing problems.

458 Research Utilization in Nursing (3)

Prerequisites: Nursing 445 and 455. This course prepares nurses to implement a research utilization model to validate practice. The theoretical basis for research utilization and practical instances of its application in nursing is examined. Opportunities are provided to develop a research utilization plan to address a clinical area of practice.

461A Adult Health Management (4-5)

Prerequisite: N407, 448, 460, 471, NS/NP. Corequisite: N404 and 411. This course is designed to provide the opportunity to apply knowledge and skills from advanced assessment, pathophysiology, health promotion and theory to advanced nursing care of adult clients and families experiencing selected problems. Emphasis is placed on using models and theories that guide advanced practice and planning research-based care. Focus is to educate the advanced practice nurse to assess, diagnose and plan care for clients with common adult health problems.

461C Child Health Management (4-5)

Prerequisite: N407, 448, 460, 471, NS/NP. Corequisite: N 404 and 411. This course is designed to provide the opportunity to apply knowledge and skills from advanced assessment, pathophysiology, health promotion, and theory to advanced nursing care of children and families experiencing selected problems. Emphasis is placed on using models and theories that guide advanced practice and planning research-based care. Focus is to educate the advanced practice nurse to assess, diagnose and plan care for clients with common pediatric health problems.

461F Family Health Management (4-5)

Prerequisite: N 407, 460, 448, 471 NS/NP. Corequisite: N 404 and 411. This course is designed to present the concepts and skills essential to primary care of families experiencing selected health problems. Emphasis is given to those health problems most commonly encountered by the Family Nurse Practitioner. A research and theory based approach is used with focus on relevant assessment, differential diagnosis and subsequent nursing management.

461W Women's Health Management (4-5)

Prerequisite: N407, 448, 460, 471 NS/SP. Corequisite: N 404 and 411. This course is designed to provide opportunity to apply knowledge and skills from advanced assessment, pathophysiology, health promotion, and theory of advanced nursing care of women and their families experiencing common health situations. Emphasis is placed on using models and theories that guide advanced practice and planning research-based care. Focus is to educate the advanced practice nurse to assess, diagnose and plan care for clients with common women's health care needs.

462 Nursing Case Analyses in Long-term Care of the Elderly (3)

Prerequisite: N451, 461A or 461F. From clinical practice with the elderly, nursing case analyses in long-term care of commonly living/frail elderly and nursing care of elderly in residential long-term care are developed. This is a clinical course, requiring an approved preceptor.

463 Nursing Case Analyses in Acute and Critical Care of the Elderly (3)

Prerequisite: N451, 461A or 461F. From clinical practice with elderly, case analyses of acutely and critically ill elderly are developed and discussed in seminar. This is a clinical course.

464F Acute and Chronic Problems in the Family II: Adult (4)

Prerequisites: Nursing 404, 445, and 448. Corequisite-Nursing 450. This clinical course is designed to examine concepts and skills essential to family nurse practitioners. Advanced nursing care of families experiencing acute and chronic health problems with particular emphasis on adult health will be addressed.

470 Special Topics in Advanced Practice Nursing (1-3)

Prerequisite: Consent of Instructor. Explore special topics for the advanced practice nurse in the areas of research, theory, education and administration. No more than three hours shall be applied toward the degree. This course is for graduate MSN or Ph.D. levels.

472 Synthesis Practicum (3)

Prerequisites: All required courses except culminating research project. This clinical course is a concentrated, experiential opportunity to function in the advanced practice nursing role of nurse administrator or nurse educator.

473 Measurement of Nursing Phenomenon (3)

Prerequisites: N 445. The theoretical basis of measurement is presented in a foundation for the development and evaluation of measurement instruments and procedure for use in nursing research. Content is presented regarding measurement theories, techniques of construction, statistical analysis of reliability and validity and strengths and limitations of selected measures of nursing research.

College of Nursing**474A Advanced Practice Nursing: Internship I (2)**

Prerequisite: All required graduate Nursing courses except advanced research component. May be taken concurrently with 474B and 474C. This clinical course provides opportunity for the initiation of the nurse practitioner role with selected populations. Students participate in precepted experiences with certified nurse practitioners and/or primary care physicians for a minimum of 200 hours. Frequent clinical seminars included. Enrollment limited to those in the practitioner functional role.

474B Advanced Practice Nursing: Internship II (2)

Prerequisite: All required graduate Nursing courses except advanced research component. May be taken concurrently with 474A and 474C. This clinical course is a continuation of precepted clinical experiences with selected populations initiated in Nursing 474A. Students satisfy a minimum of 200 precepted hours with a certified nurse practitioner and/or primary care physician and participate in frequent clinical seminars. Agency used may be the same as that used for Nursing 474A or agency may be changed with consent of instructor. Enrollment is limited to those in the practitioner functional role.

474C Advanced Practice Nursing: Internship III (2)

Prerequisite: All required Nursing courses. May be taken concurrently with 474A and 474B. This course serves as the culminating precepted clinical experience for the graduate nurse practitioner. A minimum of 200 precepted hours is spent with a certified nurse practitioner and/or primary care physician. Agency used may be the same as that used in Nursing 474B or may be changed with consent of instructor. Activities associated with final preparation for national certification examinations are included. Enrollment limited to those in the nurse practitioner functional role. Must be taken final semester of study.

475 Special Study in Graduate Nursing (1-3)

Prerequisites: Nursing 445 and permission of the instructor. In-depth study of selected topics in nursing under the guidance of a specific instructor. No more than three hours may be applied to the master's program of study.

476 Instrument Development (3)

Prerequisites: Graduate level statistics/research course and approval of instructor. The purpose of this course is to provide an in-depth study of the development and testing of nursing/health care instruments. Study will allow the student to develop expertise in nursing instrument development including theoretical foundations, item construction, validity and reliability assessment, data collection and manuscript development related to this process. This course includes computer data input and statistical analysis functions.

477 Thesis/Directed Research Seminar (1)

Prerequisites: Nursing 455 and permission of thesis/directed research chair. Presentation and discussion of selected research problems in nursing.

478 Directed Research (1-6)

Prerequisites: Nursing 455 and permission of faculty research adviser. Individual participation in the investigation of a research problem of relevance to nursing under the direction of a faculty research adviser.

479 Research Thesis (1-6)

Prerequisites: Nursing 455 and permission of faculty. Individual investigation of a research problem of relevance to nursing. Student works under the direction of a faculty committee to prepare and orally defend a thesis.

480 Doctoral Seminar (1-10)

Prerequisites: Admission to PhD in Nursing Program and consent of instructor. This course provides for discussion, analysis, and critique of selected contemporary issues and research in nursing. Topics will be chosen from among issues in health promotion and protection, health restoration and support, and health care systems. May be repeated for maximum of 10 hours on unduplicated topics.

481 Nursing Theory Analysis and Development (3)

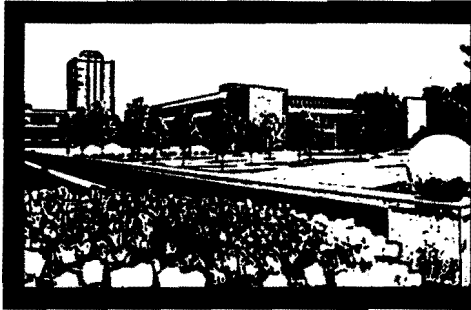
Prerequisites: Admission to PhD in Nursing Program and N450 or equivalent. This course examines foundations of nursing using both traditional and hermeneutic methods of theory analysis and evaluation. Relevant historical and contemporary writings are analyzed.

485 Issues and Methods in Quantitative Analysis in Nursing (3)

Prerequisites: N455 or equivalent; graduate level quantitative research methods course and graduate course work in univariate and multivariate applied statistics. This course provides the opportunity to consolidate prior knowledge of quantitative analysis methods; to apply those methods to the analysis of nursing phenomena; and to explore at an advanced level issues relevant to their use in nursing. Techniques of particular use in the analysis of health data will be considered.

499 Dissertation Research (1-12)

Prerequisites: Admission to Ph.D. in Nursing Program with a faculty mentor. Credit awarded only upon successful defense of the dissertation. This course provides for investigations of an advanced nature leading to the presentation of a dissertation.



School of Optometry**Faculty**

Ralph P. Garzia, Interim Dean; Director, Optometric Services
O.D., Residency, Pediatric Optometry, Pennsylvania College of Optometry

Gerald A. Franzel, Associate Dean for Clinical Education, Continuing Education and Community Relations
O.D., University of Houston

W. Howard McAlister, Director, Residency Programs
M.A., M.P.H., O.D. Ohio State University

Carol K. Peck, Director, Graduate Programs
Ph.D., University of California -Los Angeles

William G. Bachman, Associate Professor*
M.S., University of Alabama-Birmingham; O.D., Southern College of Optometry

Carl J. Bassi, Associate Professor*
Ph.D., Vanderbilt University; Postdoctoral Fellow, University of Southern California, Doheny Eye Institute

Edward S. Bennett, Associate Professor*Co-Chief, Contact Lens Service
M.S.Ed., O.D., Indiana University-Bloomington

Larry G. Brown III, Clinical Assistant Professor
O.D., Residency, Geriatric Optometry, University of Missouri-St. Louis

David Campbell, Adjunct Associate Professor
M.D., St. Louis University
M.Ed., Temple University

Lisa Harmel Chabot, Clinical Assistant Professor
O.D., Residency, Family Practice, University of Missouri-St. Louis

Jerry L. Christensen, Professor*
O.D., Ph.D., The Ohio State University

Larry J. Davis, Assistant Professor*
O.D., Indiana University; Residency, Contact Lenses, University of Missouri-St. Louis

James A. DeClue, Clinical Assistant Professor
O.D., Illinois College of Optometry

Lisa Dibler, Clinical Assistant Professor
O.D., University of Missouri-St. Louis

Gail B. Doell, Clinical Assistant Professor
O.D., University of Missouri-St. Louis

Aaron S. Franzel, Clinical Assistant Professor*; Chief Pediatric/Binocular Vision Service
O.D., University of Missouri-St. Louis

Gerald A. Franzel, Clinical Associate Professor; Associate Dean for Clinical Education, Continuing Education and Community Relations
O.D., University of Houston

Ralph P. Garzia, Associate Professor*; Interim Dean; Director, Optometric Services
O.D., Residency, Pediatric Optometry, Pennsylvania College of Optometry

Steven J. Grondalski, Clinical Assistant Professor; Coordinator, Co-Management Services
O.D., Pennsylvania College of Optometry; Residency, VA Medical Center, Wilkes Barre, PA

Alexander J. Harris, Clinical Assistant Professor; Chief, Externship Program; Coordinator of Minority Affairs
M.A., Washington University; O.D., University of Missouri-St. Louis

Monica J. Harris, Clinical Assistant Professor;
O.D., University of Missouri-St. Louis
Residency, Pediatrics and Binocular Vision, Southern College of Optometry, Memphis TN

Beth A. Henderson, Clinical Assistant Professor
O.D., The Ohio State University

Vinita A. Henry, Clinical Associate Professor; Co-Chief Contact Lens Service
O.D., Residency, Contact Lenses, University of Missouri-St. Louis

Vasudevan Lakshminarayanan, Assistant Professor*
M.Sc., University of Madras, India; Ph.D., University of California-Berkeley

Stephen W. Lehmkuhle, Professor*
Ph.D., Vanderbilt University; Postdoctoral Fellow, University of Virginia

William F. Long, Associate Professor*; Coordinator of Photographic Service
Ph.D., Michigan State University; O.D., Indiana University

W. Howard McAlister, Associate Professor*; Director, Residency Programs
M.A., Webster College; M.P.H., University of Illinois at the Health Sciences Center - Chicago; O.D., The Ohio State University

Jonathan P. McIntyre, Adjunct Assistant Professor
Ph.D., University of Cincinnati

Carol F. Merritt, Clinical Assistant Professor;
Coordinator, East St. Louis Eye Center
O.D., University of Missouri-St. Louis

Robert L. Mobley, Clinical Assistant Professor
O.D., Illinois College of Optometry

Bruce Morgan, Clinical Assistant Professor
O.D., Northeastern State University

Sean P. Mulqueeny, Clinical Assistant Professor
O.D., University of Missouri-St. Louis

Raymond I. Myers, Clinical Associate Professor
O.D., Indiana University

Leonard L. Naeger, Adjunct Associate Professor of Pharmacology
Ph.D., University of Florida; Residency, Hospital-Based

Pharmacy, VAMedical Center, St. Louis

Carol K. Peck, Professor*; Director, Graduate Programs
Ph.D., Postdoctoral Fellow, University of California-Los Angeles

Michael Railey, Adjunct Assistant Professor
M.D., University of Missouri

Jane E. Shea, Clinical Assistant Professor; Interim Coordinator, Optometric Center
O.D., University of Missouri-St. Louis; Residency, V.A. Medical Center, St. Louis, MO

Scott Soerries, Adjunct Assistant Professor
M.D., University of Missouri

Helen D. Walters, Adjunct Clinical Professor
D.O., University of Osteopathic Medicine - Iowa

Jeffrey L. Weaver, Assistant Professor*; Coordinator of Emergency Eye Service and Occupational Vision Service
M.S., The Ohio State University; M.B.A., Drury College; O.D., Pennsylvania College of Optometry; Residency, Family Practice, The Ohio State University

School of Optometry

Timothy A. Wingert, Associate Professor*; Chief, Primary Care Service; Deputy Director, Optometric Service
O.D., Illinois College of Optometry

*members of Graduate Faculty

Off Campus Adjunct Faculty

Paul Ajamian, Clinical Assistant Professor
O.D., New England College of Optometry
Ronald Bateman, Clinical Assistant Professor
O.D., Indiana University-Bloomington
P. Douglas Becherer, Clinical Assistant Professor
O.D., Southern College of Optometry
James Bureman, Clinical Assistant Professor
O.D., Illinois College of Optometry
Ron Brackenburg, Clinical Assistant Professor
O.D., Indiana University; Residency, Hospital-Based Optometry, Danville, Illinois VA
Robert Brusatti, Clinical Assistant Professor
O.D., University of Missouri-St. Louis
Carmen Castellano, Clinical Assistant Professor
O.D., Southern College of Optometry
Daniel Cerutti, Clinical Assistant Professor
O.D., University of Missouri-St. Louis
James Chapman, Clinical Assistant Professor
O.D., Illinois College of Optometry
Carrie S. Gaines, Clinical Assistant Professor
O.D., University of Missouri-St. Louis
John M. Garber, Clinical Assistant Professor
O.D., Southern College of Optometry
James M. Gordon, Clinical Assistant Professor of Ophthalmology
M.D., University of Minnesota; Residency, Ophthalmology, Washington University, Barnes Affiliated Hospitals
Timothy Harkins, Clinical Assistant Professor
O.D., Southern California College of Optometry
Debbie L. Hettler, Clinical Assistant Professor
O.D., The Ohio State University; M.P.H., University of Illinois
Gregory A. Hill, Clinical Assistant Professor
M.D., Saint Louis University
Deborah Kerber, Clinical Assistant Professor
O.D., University of Missouri-St. Louis
Robert A. Koetting, Clinical Assistant Professor
O.D., Southern College of Optometry
Julia Lampo, Clinical Assistant Professor
O.D., University of California at Berkeley
Steven F. Lee, Clinical Assistant Professor
M.D., University of Maryland
Residency, Ophthalmology, Washington University
John A. McGreal Jr., Assistant Clinical Professor
O.D., Pennsylvania College of Optometry
Joseph H. Maino, Clinical Associate Professor
O.D., Illinois College of Optometry; Residency, Rehabilitative Optometry, VAMedical Center, Kansas City
Sean Mulqueeny, Clinical Assistant Professor
O.D., University of Missouri-St. Louis
Stewart Neiber, Clinical Assistant Professor
O.D., Southern College of Optometry

Francis E. O'Donnell, Jr., Clinical Associate Professor of Ophthalmology
M.D., Johns Hopkins University, Residency, Ophthalmology, Wilmer Institute, Johns Hopkins University
Cathy Phillips, Clinical Assistant Professor
O.D., University of Missouri-St. Louis
Thomas I. Porter, Clinical Assistant Professor
O.D., Southern College of Optometry
Robert Prouty, Clinical Assistant Professor
O.D., Pacific University
Paul Resler, Clinical Assistant Professor
O.D., Illinois College of Optometry
Byron A. Santos, Clinical Assistant Professor
M.D., University of San Carlos
Carol Scott, Clinical Assistant Professor
O.D., Southern College of Optometry
Craig Sorce, Clinical Assistant Professor
O.D., University of Missouri-St. Louis
Steven Szivovecz, Clinical Assistant Professor
O.D., Indiana University
Gary Vogel, Clinical Assistant Professor
O.D., Illinois College of Optometry
Donald E. Walter, Clinical Assistant Professor
O.D., University of Houston
Jack Yager, Clinical Assistant Professor
O.D., The Ohio State University
Natalie Yampolsky, Clinical Assistant Professor
O.D., Illinois College of Optometry
Rene Zamora, Clinical Assistant Professor
M.D., Washington University

General Information

The UM-St. Louis School of Optometry enrolled its first class in 1980, graduating 32 students in May 1984. The school is located on the South Campus complex of the University of Missouri-St. Louis at 7800 Natural Bridge Road. A modern five-story building houses the School's classrooms, laboratories, research facilities, administrative offices, health-science library, and the Center for Eye Care campus facility (the University Eye Center).

The University Eye Center located on campus is open to the public, as well as to the faculty, staff, and students of the University. The primary goal of the center is to provide patients with high-quality vision care. This purpose is consistent with the overall goal of training well-qualified eye care practitioners.

In addition to the University Eye Center, the School operates the Optometric Center of St. Louis, a comprehensive optometric eye care facility in the Central West End of the city and the East St. Louis Eye Center, jointly owned and operated by the University of Missouri-Saint Louis School of Optometry and Southern Illinois University at Edwardsville.

Fourth Year Externship Program

In addition to the patient care experiences available through the University Center, Optometric Center, and the East St. Louis Center, the School of Optometry has an Externship Program. When the faculty determines

School of Optometry

that a student has reached a level of proficiency, they are approved for the 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, Veteran Administration Hospitals, Indian Health Services Hospitals, various speciality practices and private practices.

These eight (8) week Externships are selected and scheduled according to the individual student's interest, needs and future practice intentions. In this program, students leave the academic environment and begin working with selected practicing optometrists while continuing to be monitored by the Centers through weekly reports of all patient experiences and activities.

Currently, the following externships are available: Colorado Optometric Center, Denver, CO; Eye Healthcare Associates, Ltd., St. Louis, MO; Grace Hill Neighborhood Health Center, St. Louis, MO; Lighthouse Low Vision Service, New York, NY; Marine Corp Air Station, Kaneohe Bay, Hawaii; Missouri Eye Institute, Springfield, MO; Missouri Eye Institute, St. Louis, MO; Naval Medical Clinic, Pearly Harbor, Hawaii; O'Donnell Eye Institute, St. Louis, MO; Omni Eye Services of Georgia, Atlanta, GA; Omni Eye Services of Colorado, Denver, CO; Scott Air Force Base, Scott AFB, IL; St. Louis Comprehensive Neighborhood Health Center, St. Louis, MO; Veteran's Administration, Columbia, MO; Veteran's Administration, Kansas City, MO; Veteran's Administration, Marion, IL; Veteran's Administration, Marion, IL; Veteran's Administration, Poplar Bluff, MO; Washington University Eye Center, St. Louis, MO.

Students may arrange their own off-campus Clinical experiences with the approval of the Director of Externships.

Situated in Missouri's largest metropolitan area, the School enjoys the city's strong community and professional support. The urban setting offers many opportunities for outreach programs, expanding the scope of optometric education and making available highly diverse programs of clinical training. Another asset of the School is the location of the national headquarters of the American Optometric Association, and the College of Optometrists in Vision Development, approximately twelve miles from the 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 stresses optics and basic health sciences, and introduces students to optics of the visual system. The second year covers vision science and training in eye examination techniques. The third year emphasizes patient care and introduces the student to various specialty areas within optometry, such as contact lenses, pediatric and geriatric vision care, binocular vision and vision training,

and low vision rehabilitation. The second and third years also include course work and clinical training in ocular disease and pharmacology. The fourth year provides additional patient care experiences and includes rotations through a variety of outreach programs, giving the student added experience in the treatment of eye diseases, as well as valuable experience in other optometric clinical specialties.

In 1986 the Missouri Optometry Practice Act was revised by the state legislature to include treatment of certain eye diseases utilizing pharmaceutical agents. Thus, optometry students at UM-St. Louis are uniquely situated to receive excellent training in this aspect of optometric practice. Roughly half of the states in the United States now have laws authorizing optometrists to prescribe drugs in the treatment of certain eye diseases. The training and clinical experience optometry students receive at UM-St. Louis in the diagnosis, treatment, and management of ocular disease is excellent and qualifies UM-St. Louis graduates to practice optometry in any state in the nation.

A student who satisfactorily completes all four years of the professional curriculum will be eligible to receive the Doctor of Optometry degree.

The School of Optometry is a member of the Association of Schools and Colleges of Optometry and is accredited by the Council on Optometric Education of the American Optometric Association, the official optometric agency recognized by the National Commission on Accrediting and by the International Association of Boards of Examiners in Optometry.

All optometry students enrolled in the University of Missouri-St. Louis School of Optometry are eligible for membership in the student optometric association, which is affiliated with the American Optometric Association. Through this organization, students become involved in local and national optometric activities. The organization provides 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 SVOSH (Student Volunteer Optometric Services to Humanity), an international organization of optometrists providing free vision care to people in impoverished nations and the NOSA (National Optometric Student Association), which strives to recruit minority students into optometry and encourages retention of minority students.

In addition to the many activities through the School 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 gymnasium; and access to many social and cultural opportunities in St. Louis at reduced cost.

School of Optometry

Admission Requirements

Semester

English - 2

Biology (including laboratory)* - 2

Physics (including laboratory) - 2

Chemistry

General (including laboratory) - 2

Organic (including laboratory) - 1

Mathematics**

Calculus - 1

Statistics - 1

Psychology - 2

Social and Behavioral Sciences - 2 or

Quarter

English - 3

Biology (including laboratory)* - 3

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 is a requirement. Other biological science courses that are recommended include: genetics; cellular physiology; embryology.

*

All courses used to satisfy the admission requirements must have been taken at a fully accredited institution or must be acceptable by an accredited institution toward degree credit. 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) prior to the start of classes. 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 School come from a variety of undergraduate backgrounds, such as biological sciences, psychology, education, and business.

Admission Test

All applicants are required to take the Optometry Admission Test (OAT). The OAT is offered twice each year in February and October. Results are sent to the applicant and schools of optometry approximately six to eight weeks following the date of testing. Official test scores are acceptable for up to three years from the testing date.

Applicants are encouraged to take the examination in February or October of the year preceding anticipated application to the School of Optometry. If applicants wish

to enhance their scores, they are encouraged to repeat the examination. For an OAT application packet and additional information, contact:

Optometry Admission Testing Program
211 East Chicago Ave.
Chicago, IL 60611
(312) 440-2693.

Application Procedures

The Admissions Committee begins to process applications on August 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:

- 1) Application.
- 2) \$50 non-refundable application fee.
- 3) Official high school and college transcripts, followed by updated transcripts as they become available.
- 4) Academic Record form.
- 5) Official OAT results.
- 6) 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 four letters of recommendation.

In addition to the standard application procedures, prospective students living outside the United States and its possessions must take the Test of English as a Foreign Language (TOEFL). A student with a total TOEFL score below 650 will not be admitted to the School of Optometry.

Applications are processed and considered as they are received. Applicants are encouraged to begin the admissions process approximately one year in advance of their planned entrance date. Early submission of applications is encouraged.

Applications must be complete by March 15 to be considered for admission to the class entering in August of the same year. Application materials received after March 15 will not be evaluated for the class entering in August of the same year.

All correspondence and inquiries, including transcripts, should be addressed to:

Chairperson, Admissions Committee, School of Optometry, University of Missouri-St. Louis
8001 Natural Bridge Road
St. Louis, Missouri 63121-4499
(314) 516-6263.

School of Optometry

Selection Procedures

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 Optometry Admission Test (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 scheduled for an on-campus interview. The on-campus interview facilitates the committee's assessment of the applicant's interests, motivation, and personal characteristics. In addition, the on-campus interview allows the applicant to tour the facilities, meet with currently enrolled students, have questions answered regarding financial aid and housing, and learn more about the School. From this group of interviewed applicants, the entering class will be selected. The policies of the University of Missouri-St. Louis and the School of Optometry comply with the provisions under those laws which forbid discrimination on the basis of race, color, sex, national origin, religion, age, handicap, or veteran status.

Acceptance Procedures

Students accepted for admission will begin receiving notices of acceptance in December prior to the year of anticipated matriculation. Notices of acceptance may be received as late as the following June. 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 ten days from the date on the offer of admission to make a required \$200.00 non-refundable holding deposit.

Financial Aid

The University of Missouri-St. Louis maintains an Office of Student Financial Aid to assist eligible students in financing their education when their own and/or their families' resources are insufficient for this purpose. For information regarding available sources of student financial assistance contact: Student Financial Aid, Room 209 Woods Hall, University of Missouri-St. Louis, 8001 Natural Bridge Road, St. Louis, Missouri 63121-4499, (314) 516-5526. In addition, the School of Optometry has an Assistant Director of Student Financial Aid (314-516-7002) on staff to facilitate the financial aid process. Scholarship and financial aid information is available and given to prospective students during the pre-interview process.

Fees

Detailed information regarding current fees and residency regulations is furnished in the Schedule of Courses, a newspaper schedule distributed before each semester registration, available at the Registrar's Office in Woods Hall. Students should be aware that fees shown are current as this publication goes to press, but fee changes may occur while this *Bulletin* is still in use.

The University reserves the right to change fees and other charges at any time without advance notice.

Education Fees (1998-99)

All students enrolled in the University must pay Education Fees based on either the schedule for Missouri residents or the schedule for nonresidents which follows.

Optometry Educational Fee

Regular Semester

Missouri Residents \$415.50 per credit hour
*Nonresidents \$835.70 per credit hour

All students are required to pay the following fees each semester: Instructional Computer Fee \$8.00 per credit hour; Student Activity Fee \$21.80 per credit hour; Health Service Fee \$9.00 per credit hour.

Summer Session

A Summer Session is required between the third and fourth professional year. The Education Fee per credit hour for these sessions follows the same schedule as listed previously.

*Nonresident Students

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. Students are responsible for registering under the proper residence and paying the proper Educational Fee.

Residence

Currently, five nonresident positions are allocated by State Reciprocal Agreements for residents of Kansas. Individuals who are admitted under these Agreements will pay reduced educational fees. For additional information, contact: Optometry Program, Kansas Board of Regents, 7000 S.W. Harrison, Suite 1410, Topeka, KS 66603 (785)296-3518.

Optometry students will be required to pay Non-resident Educational Fees if they do not meet the University's residency requirements at the time of their enrollment. The definition of "residency" is outlined in the pamphlet Tuition and Residency Rules available from the Cashier's Office, (314) 516-5151.

School of Optometry

Four-Year Professional Degree (O.D.) Curriculum

First Year

Fall Semester

- 504, Neuroanatomy
- 505, Geometric Optics
- 506, Practice Management I
- 508, Human Anatomy and Physiology
- 512, Biochemistry

Winter Semester

- 513, Physical Optics and Photometry
- 514, Clinical Optometry I
- 515, Ocular Optics
- 516, Physiological Optics Laboratory
- 517, Ocular Motility
- 518, Anatomy and Physiology of the Eye

Second Year

Fall Semester

- 520, Ophthalmic Optics
- 521, Clinical Optometry II
- 522, Systemic Disease
- 524, Monocular Sensory Processes
- 541, Practice Management II
- 555, General Pharmacology

Winter Semester

- 530, Ophthalmic Dispensing
- 531, Clinical Optometry III
- 532, Binocular Vision and Space Perception
- 533, Ocular Disease I
- 535, Epidemiology
- 565, Ocular Pharmacology
- 568, Clinical Medicine

Third Year

Fall Semester

- 550, General Clinic I
- 553, Contact Lenses I
- 554, Binocular Vision Anomalies
- 556, Ocular Disease II
- 558, Geriatric Optometry
- 596, Public Health

Winter Semester

- 557, Environmental Vision
- 559, Ophthalmic Lasers
- 560, General Clinic II
- 561, Pediatric/Binocular Vision Specialty Clinic
- 562, Contact Lenses Specialty Clinic
- 563, Contact Lenses II
- 564, Low Vision
- 566, Ocular Assessment
- 567, Pediatric Optometry
- 582, Practice Management III

Fourth Year

Required Courses

- 573, UM-St. Louis Pediatric/Binocular Vision Patient Care
- 574, UM-St. Louis Contact Lens Patient Care
- 575, UM-St. Louis Co-Management Patient Care
- 583, Practice Management IV
- 593, Clinic Seminar
- 585, External Rotation in Ocular Disease Patient Care or
- 586, External Rotation in Institutional Patient Care

Elective Courses

- 570, External Rotation in General Patient Care
- 571, Community Service Rotation in Patient Care
- 572, East St. Louis Center patient Care and/or
- 576, Optometric Center Patient Care
- 577, Optometric Center Low Vision Patient Care
- 578, External Rotation in Contact Lens Patient Care
- 579, External Rotation in Pediatric/Binocular Vision Patient Care
- 580, Supplementary Rotation in General Patient Care
- 585, External Rotation in Ocular Disease Patient Care
- 586, External Rotation in Institutional Patient Care
- 592, External Rotation in Low Vision Patient Care

Note: 585 and 586 cannot be taken twice.

Students must complete a minimum of three credit hours of approved elective courses during the course of their professional curriculum. Additionally fourth year students must complete four elective clinic courses during their fourth year.

The School of Optometry does not recognize satisfactory/unsatisfactory grades for an optometry student enrolled in a course required for the Doctor of Optometry degree.

Grades

The School of Optometry does not recognize a D grade for an optometry student enrolled in a course required for the Doctor of Optometry degree.

Graduate Studies

Physiological Optics

Physiological Optics is a multidisciplinary area concerned with the study of normal and anomalous vision. The goal of this program in Physiological Optics is to train the next generation of researchers in clinical and basic vision science, to conduct research, and to educate faculty for schools 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 School 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.

School of Optometry

Admission Requirements

Students should 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 of the United States. In order 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 post-secondary 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 Graduate Record Examination (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 Test of English as a Foreign Language (TOEFL) scores of 550 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.

Master of Science in Physiological Optics

Degree Requirements

The M.S. degree requires 30 semester hours of course work, including the core courses. At least 25 of these hours will normally be taken from courses offered by the School of Optometry with no more than 10 of these in Physiological Optics 490, Graduate Research in Physiological Optics. Each M.S. student will be required to teach at least two semesters in areas determined by the Graduate Committee in Physiological Optics.

The **Core Courses** for this program are:

Physiological Optics 400, Sensory Processes and Perception (3 credits)

Physiological Optics 401, Visual Optics (3 credits)

Physiological Optics 402, Ocular Anatomy and Physiology (3 credits)

Physiological Optics 403, Psychophysical Methods and Experimental Design (3 credits)

Physiological Optics 404, Sensory Neuroscience (3 credits)

Special Topics, Individual Studies, and Advanced Topics courses in Physiological Optics 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 which must be from the graduate faculty in Physiological Optics.

Ph.D. in Physiological Optics

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 Physiological Optics. Students will be required to teach at least two semesters in areas determined by the Graduate Committee in Physiological Optics.

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.

The preparation of the dissertation will be supervised by a dissertation committee, which will be selected by the student and the student's adviser with input by the graduate committee. An oral examination of the written dissertation proposal will be conducted by the Committee. A public oral defense of the completed written dissertation is required.

The **Core Courses** for this program are:

Physiological Optics 400, Sensory Processes and Perception

Physiological Optics 401, Visual Optics

Physiological Optics 402, Ocular Anatomy and Physiology

Physiological Optics 403, Psychophysical Methods and Experimental Design

Physiological Optics 404, Sensory Neuroscience
Special Topics, Individual Studies, and Advanced Topics
courses in Physiological Optics are also offered.

Continuing Education

The School of Optometry offers Continuing Education programs for optometrists throughout the Midwest region as well as nationwide. Courses on management of ocular diseases, ocular anomalies and visual skills are held on a frequent basis. In addition to our faculty, optometric specialists, medical educators, and researchers have input into the development of the courses as well as participation in the course presentations.

All of the 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 School of Optometry
Office of Continuing Education
8001 Natural Bridge Road
St. Louis, MO 63121-4499
(314) 516-5604

School of Optometry

Career Outlook

Doctor of Optometry Degree

A Doctor of Optometry is an independent health care professional who is specifically educated, clinically trained, and licensed to examine, diagnose, and treat conditions or impairments of the human vision system. They examine the eyes and related structures to determine the presence of vision problems, eye disease, and other ocular abnormalities.

Doctors of Optometry are the major providers of vision care. They provide treatment by prescribing ophthalmic lenses or other optical aids, provide vision therapy to preserve or restore maximum efficiency in vision, and in most states (including Missouri) are authorized to prescribe drugs in the treatment of certain eye diseases.

Doctors of Optometry can also detect certain general diseases of the human body such as diabetes, hypertension, and arteriosclerosis that have the potential capacity to affect vision. When an eye examination reveals diseases in other parts of the body, the optometrist will refer patients to the appropriate health care practitioner for treatment. Like physicians and dentists, optometrists are primary health care professionals.

The scope of optometry practice requires an understanding of the development of vision from infancy through adulthood, and the therapeutic and rehabilitative methods required to care for the problems of vision from infancy through the declining years.

Optometry is the largest eye care profession and one of the largest independent health care professions in the United States. Currently, some 28,900 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 criteria.

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, including both older citizens and school 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.

The patients whom the practicing Doctors of Optometry treats may have varied and challenging needs. On any given day, an optometrist might be involved in restoring 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.

School of Optometry

Course Descriptions

The following 400-level courses may be taken in the Master of Science or Doctor of Philosophy programs in Physiological Optics.

400 Sensory Processes and Perception (3)

Prerequisite: Consent of instructor required for graduate students not in Physiological Optics. Current views on the encoding of various aspects of the visual stimulus (intensity, space, time, and wavelength) that give rise to the perceptions of brightness, contour, motion, and color will be considered in this course. The psychophysical tools available to examine visual encoding will be emphasized. Other topics will include binocular vision and depth perception, information processing approaches to visual pattern recognition, and the similarities and interactions of the visual system with the other sensory modalities.

401 Visual Optics (3)

Prerequisite: Opt 406, Opt 505, or consent of instructor. This course deals with the optical properties of the eye. Included are a review of general optics including physical optics, paraxial and non-paraxial geometric optics, image quality, radiometry and photometry, and optical instrumentation. Topics in visual optics will include schematic eyes, measurement of the parameters of the eye, accommodation, retinal image size, refractive errors, visual axes, spectral absorption by the ocular media, and the optical performance of the eye.

402 Ocular Anatomy and Physiology (3)

Prerequisite: Consent of instructor required for graduate students not in Physiological Optics. The structures and fluids of the eye and orbit, their interactions and functions are considered in this course. Specific topics include the eyelids, tearfilm, conjunctiva, cornea, iris, ciliary body, vasculature, aqueous humor, vitreous body, and the retina.

403 Psychophysical Methods and Experimental Design (3)

Prerequisite: Consent of instructor required for graduate students not in Physiological Optics. Advanced methodology for the design and analysis of experiments in a variety of areas of visual science are considered in this course. Both basic and applied topics will be considered. Special emphasis will be placed on psychophysical methodology, signal detection analysis, and scaling techniques.

404 Sensory Neuroscience (3)

Prerequisite: Opt 405, Opt 504, or consent of instructor. This course will deal with the neural organization of the sensory systems with an emphasis on vision. It will include a review of general neurophysiology and neuroanatomy as they relate to the processing of environmental stimuli into neural information, as well as experimental approaches utilized in neurobiology. Topics to be covered include neural transduction and sensory

coding by receptors and neurons, constraints on perception defined by the functional organization of the nervous system, sensory development and plasticity as related to neural development, and evolution of sensory systems.

405 Neuroanatomy (5)

Prerequisite: Graduate standing. Detailed gross and microscopic anatomy of the human central nervous system with a special emphasis on the cranial nerves, nuclei, and the visual system. Students may not receive credit for both Opt 405 and Opt 504.

406 Geometric Optics (5)

Prerequisite: Graduate standing. The principles of geometrical optics as applied to refracting and reflecting surfaces, thin lenses, thick lenses, and lens systems. The optics of various ophthalmic instruments and techniques will be examined. A student may not receive credit for both Opt 406 and Opt 505.

451 Corneal Physiology (2)

Prerequisite: Completion of core or consent of instructor. A detailed consideration of the biochemical and biophysical aspects of corneal transparency, including nutrition, metabolism, and methods of investigation. The effects of altered corneal environments (such as exist during sleep or contact lens wear) will be discussed.

452 Growth and Development of the Visual System (2)

Prerequisite: Completion of core or consent of instructor. This course will be an in-depth coverage of topics related to the growth and development of the visual system, including visual deprivation, neuronal specificity and plasticity, and neurotrophic influences.

453 Advanced Physiology of Other Sensory Systems (2)

Prerequisite: Completion of core or consent of instructor. This course will deal with the structure and function of the auditory, vestibular, olfactory, and somatosensory systems. Particular emphasis will be placed on similarities and interrelationships between these senses and vision.

454 Binocular Vision (2)

Prerequisite: Completion of core or consent of instructor. Binocular fusion and summation, binocular rivalry and suppression, and stereopsis and depth perception are the major topics of the course. The neurophysiology of binocular vision, and its development will also be covered in the course.

455 Visual Information Processing (2)

Prerequisite: Completion of core or consent of instructor. This course covers a variety of topics related to the computer modeling of visual problems, such as the detection of surfaces and three-dimensionality, the perception of color, and the encoding of motion. Computer models will be evaluated in terms of their efficiency, veridicality, and relation to biology.

School of Optometry

456 Oculomotor Systems (2)

Prerequisite: Completion of core or consent of instructor. The intra- and extraocular muscle systems illustrate the role of visual and other sensory information in feedback control systems. Topics include the control of eye movements, accommodation and pupil size, and their synkinetic relationship in the near triad. The anatomy, physiology, and pharmacology of the muscles, kinematics, methods of measuring eye movements, neurophysiology of eye movements, and perceptual phenomena are also discussed.

457 Comparative and Evolutionary Aspects of Vision (2)

Prerequisite: Completion of core or consent of instructor. This course explores the evolution of visual systems by examination of structural and functional aspects of vision in vertebrate and invertebrate species. Topics include photosensitivity and photoreception; structure of the eye in vertebrates and invertebrates; discrimination of form, motion, and color; visual reflexes, parallel processing; elaboration of central visual pathways; binocular vision; and stereopsis. Structural and functional adaptations to selective pressure will also be discussed.

458 Noninvasive Assessment of the Visual System (2)

Prerequisite: Completion of core or consent of instructor. This course reviews historical topics and emphasizes current topics in the noninvasive clinical and laboratory assessment of the normal and diseased human visual system. Topics will range from delineation of disease mechanisms (such as retinal and choroidal disorders, cataract, corneal disease, glaucoma, strabismus, and amblyopia) to the design and assessment of new techniques and technology for evaluating the function of the visual system (e.g., advances in imaging techniques, fluorophotometry, perimetry, laser interferometry, psychophysics, etc.).

459 Introduction to Computer Programming for Vision Research (3)

Prerequisite: Consent of instructor required for graduate students not in Physiological Optics. This course will expose the student to fundamental concepts of computer programming. The Prograph programming language will be used on the Macintosh computer to illustrate procedural and object-oriented programming philosophies. Examples and assignments will focus upon research applications in vision science.

470 Individual Studies in Physiological Optics (2)

Prerequisite: Consent of instructor. This course designation can be used to cover a variety of topics in visual science. In general, very specific topics of limited interest will be presented as individual studies. Individual studies and advanced topics enable the student's course of study to be sharply tuned to his or her major area of interest.

490 Graduate Research in Physiological Optics (1-15)

Prerequisite: Consent of instructor. Research in an area selected by the student in consultation with faculty members. May be taken to a maximum of 10 hours for the M.S. and 15 hours for the Ph.D.

497 Interdisciplinary Geriatric Care (2)

(Same as Gerontology 497.) 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.

499 Current Topics in Optometry and Vision Science (1)

Prerequisite: Consent of instructor. This seminar course examines and analyzes current publications in eye care and vision research. May be taken as an optometry elective to a maximum of 3 hours.

The following 500-level courses are taken in the Doctor of Optometry (O.D.) program.

504 Neuroanatomy (4)

Detailed gross and microscopic anatomy of the human central nervous system with a special emphasis on the cranial nerves, nuclei, and the visual system.

505 Geometric Optics (4)

The principles of geometrical optics as applied to refracting and reflecting surfaces, thin lenses, thick lenses, and lens systems. The optics of various ophthalmic instruments and techniques will be examined.

506 Practice Management I (2)

An introduction to the profession of optometry, including a consideration of the characteristics of a profession, the history of optometry, the profession's legal limitations, and major optometric organizations. The ethical basis of the practice of optometry will be explored, including a consideration of the theories and principles of normative ethics, biomedical ethics and the responsibilities of the health care practitioner, professional codes of ethics and ethical issues that arise in the practice of optometry. Ethical case studies will be extensively used. This is an interactive course, requiring active participation on the part of the student.

508 Human Anatomy and Physiology (6)

The general anatomy of the human body and the physiology of the major organ systems including the peripheral and autonomic nervous system, the cardiovascular, respiratory, endocrine, digestive, and reproductive systems will be presented. The anatomy of the head and neck will be emphasized and the histology of the basic tissue types and organs will be related to general human anatomy and physiology. (Five hours lecture, two hours laboratory/week.)

School of Optometry

512 Biochemistry (3)

Basic concepts of general and cellular biochemistry. Study of nomenclature structure, and reactions of organic molecules. Some emphasis on visual system—tears, intraocular fluids, lens, and photochemistry.

513 Physical Optics and Photometry (2)

Prerequisite: Optometry 505. Basic photometric concepts, measurements of light levels, applications in erg514 Clinical Optometry I (2) Selected tests for ocular assessment including case history, visual acuity, and ophthalmoscopy.

515 Ocular Optics (3)

Prerequisite: Opt 505. The eye as an image-forming mechanism, the schematic eyes, the optical role of the pupil, the retinal image and its evaluation. Nature, classification, and etiology of ametropia. Experimental models of refractive errors. Entoptic phenomena. Mechanism and optical aspects of accommodation.

516 Physiological Optics Laboratory (1)

Experiments designed to accompany Opt 515 and Opt 517.

517 Ocular Motility (3)

Prerequisite: Opt 504. The anatomy, physiology, neurology, measurement, characteristics, and control of the intra- and extraocular system.

518 Anatomy and Physiology of the Eye (5)

Prerequisite: Opt 504 and Opt 508. Vegetative anatomy and physiology of the eye, optic nerve, orbit, and adnexa will be discussed. This includes discussion of embryology and the dynamics of ocular fluids and includes a two-hour laboratory.

519 Physical Optics and Photometry Laboratory (1)

Prerequisite: Concurrent enrollment in Opt 513. Experiments designed to accompany Opt 513.

520 Ophthalmic Optics (4)

Prerequisite: Opt 513, 515, & 519. Ophthalmic materials, physical characteristics of lenses and frames, paraxial optics of ophthalmic lenses, ophthalmic prisms, lens specifications, special lenses, multifocal lenses, unique designs, aniseikonic lenses, aberration theory and its application to lens design, lenses for low vision, protective eyewear, selection and dispensing eyewear, management of a dispensary.

521 Clinical Optometry II (5)

Prerequisite: Opt 514. Continuation of clinical optometry. Patient care in the areas of refraction, binocular integration, perimetry, and bicroscopy.

522 Systemic Disease (3)

Prerequisite: Opt 508 & 512. Principles of health and disease. A survey of disease, disease processes, and disease manifestations. A study of tissue changes in inflammation, immunology, neoplasia, allergies, disturbances of metabolism and circulation, and injuries.

524 Monocular Sensory Processes (5)

Monocular sensory mechanisms of vision, photoreception, visual neurophysiology, spatial and temporal effects, visual acuity and resolution, adaptation, brightness discrimination, and color vision. Topics include a consideration of both the psychophysical aspects and neurophysiological bases of these mechanisms.

530 Ophthalmic Dispensing (1)

Prerequisite: Opt 520. Clinical experience in verification and dispensing of ophthalmic materials.

531 Clinical Optometry III (5)

Prerequisite: Opt 521. Correlation and analysis of optometric data. Emphasis on diagnosis, prognosis, and therapy of visual problems.

532 Binocular Vision and Space Perception (4)

Prerequisite: Opt 521 and 524 or consent of instructor. Binocular vision and space perception. Visual direction, theory of correspondence, fusion, rivalry, ocular dominance, and stereopsis. Developmental aspects and neurophysiological mechanisms.

533 Ocular Disease I (4)

Prerequisite: Opt 522. The etiology, epidemiology, symptoms, signs, and course sequelae of ocular disease and anomalies. Disease and anomalies of lids, orbit, conjunctiva, cornea, sclera, iris, ciliary body, lens, vitreous, retina, choroid, and optic nerve.

535 Epidemiology (2)

A review of descriptive statistics, probability sampling, correlation, and prediction. The essentials of epidemiological study procedures and a discussion of the epidemiology of vision disorders.

541 Practice Management II (2)

Prerequisite: Opt 506. Principles of human interpersonal relationships. The enhancement of listening and verbal skills will be provided. Emphasis will be preparing the student to understand and manage the many human interpersonal relationships necessary in the practice of optometry.

550 General Clinic I (6)

Prerequisite: Opt 531 and successful completion of all first and second year coursework required. The clinical examination and care of general clinic patients, along with the fitting and dispensing of lenses and frames.

School of Optometry

553 Contact Lenses I (3)

Prerequisite: Opt 531. Historical development of the contact lens and its use. Basic lens terminology, specifications, physiochemical characteristics, optics, fabrication, and verification. Preliminary patient evaluation, indications and contraindications for contact lenses. Basic fitting philosophies for all lens types. Lens care and patient education. Patient and practice management considerations.

554 Binocular Vision Anomalies (4)

Prerequisite: Opt 531 & 532 or consent of instructor. The etiology, epidemiology, symptoms, signs, and course sequelae of the obstacles to binocular vision—sensory, integrative, and motor. The detection, diagnosis, prognosis, and orthoptic treatment of such anomalies. Clinical care of aniseikonias.

555 General Pharmacology (3)

Prerequisite: Opt 508 and 522. General principles of drug actions on the organ systems, central and peripheral nervous systems, methods of administration, pharmacological actions, side effects, and drug interactions. Regulatory agencies, laws, and drug abuse.

556 Ocular Disease II (4)

Prerequisite: Opt 533. The etiology, epidemiology, systems, signs, course sequelae and management of posterior segment ocular disease and the anomalies and ocular manifestations of systemic diseases. Disease, abnormalities and management of neurological conditions which affect the lids, pupils, extraocular muscles, optic nerve and visual system.

557 Environmental Vision (2)

This course considers the relationship of the eye and vision to all aspects of one's environment including home, work, recreation, and transportation. Emphasis will be placed on protecting the eye from injury and maximizing vision performance.

558 Geriatric Optometry (2)

(Same as Gerontology 458.) Special examination and management considerations of the geriatric patient will be discussed. Psychological, physiological, social, and demographic aspects of aging, as well as ocular changes associated with the aging process will be taught.

559 Ophthalmic Lasers (1)

Principles and applications of lasers for ophthalmic use. Emphasis will be placed on demonstration where possible. Topics will include the principles, physics and safety concerns of ophthalmic lasers. Lasers used in retinal imaging, and in the care of glaucoma, cataract, refractive conditions, and cosmetic conditions will be discussed and demonstrated. Co-management of patients requiring ophthalmic laser treatment will also be covered.

560 General Clinic II (6)

Prerequisite: Opt 550 and successful completion of all Fall semester third year coursework required. Same as General Clinic I.

561 Pediatric/Binocular Vision Specialty Clinic (1)

Prerequisite: Opt 554 and successful completion of all Fall semester third year coursework required. The clinical examination and care of patients in the optometric specialty areas of binocular vision and pediatric vision.

562 Contact Lens Specialty Clinic (1)

Prerequisite: Opt 553 and successful completion of all Fall semester third year coursework required. The clinical examination and care of patients in the optometric specialty area of contact lenses.

563 Contact Lenses II (3)

Prerequisite: Opt 553. Advanced contact lens fitting, theories, and clinical methods for astigmatic, presbyopic, keratoconic, and aphakic designs. Special considerations include the use of corneal topography, orthokeratology, disposable lenses, lenses for extended wear and lenses for color deficiencies.

564 Low Vision (3)

The etiology, epidemiology, symptoms, signs, and course sequelae of low-vision problems. Methods of testing, prognosis, selection of therapy, design of environmental and optical aids, problems of rehabilitation. Agencies, laws, public and social assistance for the partially sighted and blind.

565 Ocular Pharmacology (3)

Prerequisite: Opt 555. Pharmacology principles, methods of administration, doses, contraindications, and adverse effects of drugs used for the diagnosis and treatment of abnormalities of the eye, adnexa and visual system. Ocular manifestations of systemic medications.

566 Ocular Assessment (1)

Prerequisite: Enrollment in General Clinic I or II. Discussion of the diagnosis and management of common clinic patient encounters via Socratic teaching techniques. Interns are encouraged to present actual cases which have been particularly challenging for them.

567 Pediatric Optometry (3)

Prerequisite: Opt 531. Special examination and management considerations of the pediatric patient. Psychological, physiological, social, and demographic aspects of early visual development. Discussion of the optometric considerations of children with learning and reading disabilities.

School of Optometry

568 Clinical Medicine (2)

Prerequisite: Opt 522 and 555. Diagnostic principles and medical management. Comprehensive health history, physical examination and neurological screening with particular association to ocular health conditions. Clinical chemistry and interpretation of clinical laboratory tests, criteria for referral to other providers and emergency office procedures. Co-management practice with other primary care physicians will be emphasized.

569 Ocular Photography (2)

Prerequisite: Consent of instructor. Optical principles and clinical techniques in photographing the internal and external eye and its adnexa. Includes laboratory exercises on use of the most common types of clinical cameras.

570 External Rotation in General Patient Care (7)

Prerequisite: Successful completion of all first, second, and third year coursework required. Comprehensive clinical care of a general population of optometric patients at external sites approved by the School of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

571 Community Service Rotation in Patient Care (7)

Prerequisite: Successful completion of all first, second, and third year coursework required. Comprehensive clinical care of patients at St. Louis area community health centers. This course fulfills one of the clinic courses required for graduation.

572 East St. Louis Center Patient Care (7)

Prerequisite: Successful completion of all first, second, and third year coursework required. Comprehensive clinical care of patients at the East St. Louis Eye Center. This course fulfills one of the clinic courses required for graduation.

573 UM-St. Louis Pediatric/Binocular Vision Patient Care (3)

Prerequisite: Successful completion of all first, second, and third year coursework required. Comprehensive clinical care of patients in pediatric/binocular vision clinic at the University of Missouri-St. Louis Center for Eyecare. This course fulfills one of the clinic courses required for graduation. This course must be taken in conjunction with Opt 574 and Opt 575.

574 UM-St. Louis Contact Lens Patient Care (3)

Prerequisite: Successful completion of all first, second, and third year coursework required. Comprehensive clinical care in the contact lens clinic at the University of Missouri-St. Louis Center for Eyecare. This course fulfills one of the clinic courses required for graduation. This course must be taken in conjunction with Opt 573 and Opt 575.

575 UM-St. Louis Co-Management Patient Care (1)

Prerequisite: Successful completion of all first, second, and third year coursework required. Comprehensive clinical care in the co-management clinic with ophthalmologists at the University of Missouri-St. Louis Center for Eyecare. This course fulfills one of the clinic courses required for graduation. This course must be taken in conjunction with Opt 573 and Opt 574.

576 Optometric Center Patient Care (6)

Prerequisite: Successful completion of all first, second, and third year coursework required. Comprehensive clinical care of patients at the University of Missouri-St. Louis Optometric Center. This course fulfills one of the clinic courses required for graduation. This course must be taken in conjunction with Opt 577.

577 Optometric Center Co-Management Patient Care (1)

Prerequisite: Successful completion of all first, second, and third year coursework required. Comprehensive clinical care of patients in the co-management clinic with ophthalmologists at the University of Missouri-St. Louis Optometric Center. This course fulfills one of the clinic courses required for graduation. This course must be taken in conjunction with Opt 576.

578 External Rotation in Contact Lens Patient Care (7)

Prerequisite: Successful completion of all first, second, and third year coursework required. Comprehensive clinical care of contact lens patients at an external site approved by the School of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

579 External Rotation in Pediatric/Binocular Vision Patient Care (7)

Prerequisite: Successful completion of all first, second and third year coursework required. Comprehensive clinical care of pediatric/binocular vision patients at an external site approved by the School of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

580 Supplementary Rotation in General Patient Care (7)

Prerequisite: Successful completion of all first, second, and third year coursework required. Comprehensive clinical care of general population of optometric patients at an external site approved by the School of Optometry's Externship Council. This elective may also be taken at the UM-St. Louis Center for Eye Care, UM-St. Louis Optometric Center, or the UM-St. Louis East St. Louis Eye Center.

School of Optometry

582 Practice Management III (3)

Prerequisites: Opt 506 and Opt 541. The development and management of an optometric practice from a patient and community service point of view—office design, office routine, patient care administration, personnel management, and recall systems. The establishment, development, and management of an optometric practice from a business point of view. Legal developments, governmental relationships, legislation and the legislative process, malpractice, professional ethics, taxes, fee structures, insurance, and accounting methods.

583 Practice Management IV (2)

Prerequisite: Successful completion of all first, second, and third year coursework required. Further in-depth discussion in practice management.

585 External Rotation in Ocular Disease Patient Care (7)

Prerequisite: Successful completion of all first, second, and third year coursework required. Comprehensive clinical care of patients with ocular disease at external sites approved by the School of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

586 External Rotation in Institutional Patient Care (7)

Prerequisite: Successful completion of all first, second, and third year coursework required. Comprehensive clinical care of primary care patients at external sites approved by the School of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

587 Sports Vision (2)

Special examination and management considerations of the competitive athlete. This elective course includes a study of the special visual requirements and demands resulting from athletic endeavors.

588 Directed Research (3)

Credit is given for independent research. Projects may be laboratory, library, or clinically based research in any area of vision science. All projects must be undertaken under the supervision of a three-member faculty committee. This elective may be repeated once.

589 Directed Readings (1)

Credit is given for independent literature review of a specific topic in any area of basic or clinical vision science. Readings are to be supervised by a two-person faculty committee and at least one member of this committee must be selected from among the full-time regular faculty. Credit is awarded upon approval of a written paper regarding the selected topic. This elective may be repeated once.

591 Geriatric Patient Care Delivery (3-6)

Prerequisite: Consent of Geriatric Residency Instructors. Direct optometric patient care to a population that is largely geriatric. Emphasis will be on integrating specialty care available for these patients to provide comprehensive vision care. Two hours of direct patient care per week are required per hour of credit. In addition, the student will attend weekly supervisory meetings. May be repeated with consent of instructor for a total of 18 credits. Patient care will become more independent of direct supervision and the type of patients seen will be more varied with each repeat.

592 External Rotation in Low Vision Patient Care (7)

Prerequisite: Successful completion of all first, second, and third year coursework required. Comprehensive clinical care of low vision patients at an external site approved by the School of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

593 Clinic Seminar (1)

Prerequisite: Successful completion of all first, second, and third year coursework required. Presentation and discussion of interesting clinical patients. Additional clinical testing techniques and concepts. Further discussion of patient data analysis—the process of determining diagnosis, prognosis, and therapy. Further discussions in the optometric specialties.

594 Topics in Geriatric Optometry (3)

Prerequisite: Opt 558. This course will address concerns and options in providing optometric care to a geriatric population. New techniques, research, and public policy changes will be discussed to assist students in assembling a global perspective on delivering health care to a specific population.

595 Computer Applications in Optometric Practice (2)

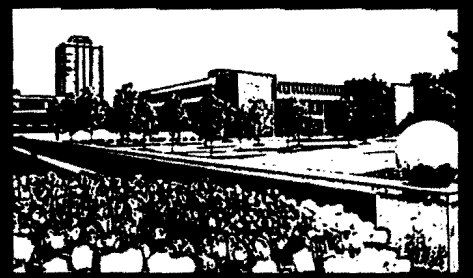
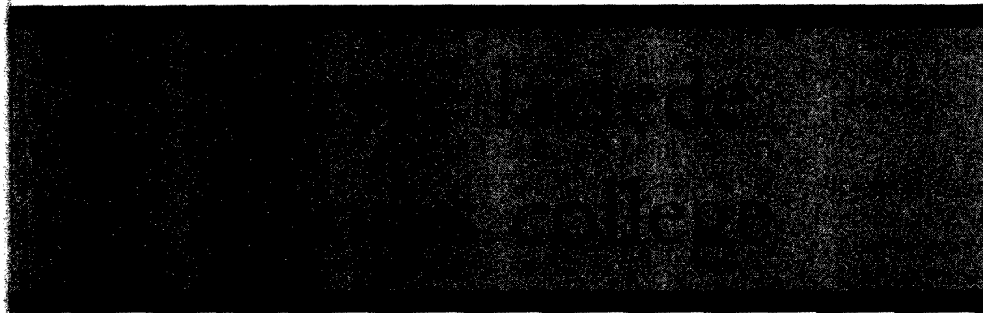
(elective) Prerequisite: Second professional year or consent of instructor. An introduction to microcomputers and computerized office management systems. This course is designed to provide students with training in the use of computers, office management software, and microprocessor technology in an optometric office.

596 Public Health (2)

A review of local, state, and federal organizations involved in health care, comprehensive health planning, new trends in health care delivery, and the assessment of the quality of health care delivery. The relationship of vision care to these topics is emphasized.

598 Clinical Applications of Current Topics in Visual Science (2)

(elective) Prerequisite: Consent of instructor. A seminar on the use of new discoveries in visual science in clinical optometry. Students will participate in selecting the topics, which will change from year to year, with the guidance of the instructor. The course will also include laboratory demonstrations of seminar topics.



Pierre Laclède Honors College

General Information

The Honors College's goal is to enrich significantly the educational experience of a select group of highly motivated and intelligent undergraduates. With this in mind, it enrolls promising students who give clear indication that they are ready to accept academic challenges and become creatively involved in the learning process together with a team of similarly committed instructors.

Given this special mission, the College has a unique structure and identity. Unlike the University's other Schools and Colleges, it has no academic departments or areas or faculty of its own, and it grants no degrees. Instead, it brings together a cross section of the University's students and teachers in a special curriculum.

The College offers two academic formats:

- 1) A Four-Year Program open to entering freshmen and extending over a student's entire undergraduate career;
- 2) A Two-Year Program open to a select group of third-year students who are either continuing at or have transferred to the University and are engaged in work on a major.

Faculty

Honors College instructors are drawn from the various academic departments and areas in those Colleges and Schools which have an undergraduate component. What these teachers have in common is a willingness to work closely with a select, diverse group of intellectually curious and academically high-achieving students. They demonstrate this by designing courses directed toward such an audience. This faculty is an organic body. Each term it adds members to its roster. The newcomers invariably include individuals whose teaching and scholarship have been singled out for special distinction. Their talents add to the Honors College's already rich instructional pool.

Honors Scholars

The Honors College's student Scholars are highly qualified graduates from a broad range of public and private secondary schools predominantly in the St. Louis metropolitan area. They enter the College with different interests and remain part of it while simultaneously enrolling in classes and pursuing Bachelor of Arts and Bachelor of Science degrees in other academic divisions.

Many students major in liberal arts areas spanning the humanities, social sciences, and natural sciences, while others focus on preparing for careers in business or education. Among the Scholars are prospective engineers, lawyers, and doctors. Most Scholars plan to go on to graduate study or professional schools.

Curriculum

Four-Year Program

Approximately 40 percent of the 120 hours Honors Scholars earn toward graduation carries Honors credit. Most of this is associated with a sequence of Honors courses designed specifically for them, 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 Scholars also earn Honors credit for work done within their major fields.

First Year

- 10, Freshman Composition
- 20, Contemporary Issues and Events Symposium
- 30, Critical Analysis
- 101, Western Traditions
- 103, Non-Western Traditions

Second Year

Scholars take **two** of the following Honors classes:

- 201, Inquiries in the Humanities
- 202, Inquiries in the Fine and Performing Arts
- 203, Inquiries in the Social and Behavioral Sciences
- 204, Inquiries in Business and Economics
- 205, Inquiries in Mathematics and the Natural Sciences

During the first two years, a typical Honors Scholar will also 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. Scholars must satisfy special mathematics and natural science requirements.

Third and Fourth Years

- 300, Honors Seminar (at least four)
- Six hours** of independent study in the major field taken for Honors credit.

Two-Year Program

Scholars in this program will take a combination of Honors College courses and also earn Honors independent study credit for work done in their major fields. They must also satisfy the University's special mathematics and natural science requirements if this has not been done prior to their admission into the College.

Third Year

- 200 (one course in this sequence)
 - 300, Honors Seminar (one in this sequence)
- Three hours** of work in the major field taken for Honors independent study credit

Fourth Year

Same as for Third Year

The satisfactory/unsatisfactory option does not apply to any course work undertaken for Honors credit.

Pierre Laclède Honors College

Admission and Retention

To be considered for admission to either the Four-Year or Two-Year Honors Program, a candidate must file a special Honors College application. Prospective freshmen and transfer students must also submit a regular application for admission to the University. These forms and additional information concerning scholarship and stipend awards, general eligibility guidelines, the admission process, and other features associated with participation in the Honors College can be obtained by contacting the College's administrative office: 516-6870.

To remain in good standing, a student must maintain both a cumulative and Honors GPA of at least 3.20 while remaining actively engaged in Honors studies.

Additional Honors College Features

Community Mentorship Program

Since students at UM-St. Louis are part of a thriving metropolis and most are likely to remain so, the Honors College seeks to instill a high degree of urban awareness in them. Based on their intellectual and career interests, Honors Scholars are matched with appropriate role models working in various sectors of the community. Some of these relationships may eventually lead to internships.

Scholarships and Stipends

Every new freshman or transfer student admitted to the Honors College is awarded some form of academic scholarship. Scholars continue to receive these awards as long as they meet the criteria associated with them.

Pierre Laclede Honors College**Course Descriptions**

The following courses fulfill the Humanities (H) breadth of study requirements: 30, 101, 102, 103, 201, 202. The following courses fulfill the Social Sciences (SS) breadth of study requirements: 101, 102, 103, 203, 204. The following course fulfills the Natural Sciences and Mathematics (SM) requirements: 205.

Depending on the nature of the topic, Honors 300, Advanced Honors Seminar, also fulfills specific breadth of study requirements.

10 Freshman Composition (3)

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 Honors 101.

20 Contemporary Issues and Events Symposium (2)

Prerequisite: Consent of the dean of the Honors College. Open discussion of current and usually controversial issues relating to various disciplines. An assigned reading on the topic serves as the catalyst for an exchange of views between the class and a panel made up of students and a guest expert. Students are also required to attend and report on cultural events in the St. Louis area as part of this class.

30 Critical Analysis (3)

Prerequisite: Consent of the dean of the Honors College. An introduction to the forms and techniques of rational discussion. The emphasis is on improving skills in identifying, analyzing, evaluating, and formulating arguments. Topics include deductive and non-deductive reasoning, causal analysis, analogical arguments, logical fallacies, vagueness and ambiguity, methods of definition, and argumentative writing.

101 Western Traditions (3)

Prerequisite: Consent of the dean of the Honors College. A seminar based on the reading and discussion of a few major works of exceptional importance. The works discussed will cover all eras of Western civilization from ancient times to the present and will range over several fields of study. These works will convey diversity within Western traditions and will not represent any single perspective.

102 American Traditions (3)

Prerequisite: Consent of the dean of the Honors College. A seminar based on the reading and discussion of a few major works of exceptional importance. The works discussed will cover all eras of American history from the colonial era to the present and will range over several fields of study. These works will convey diversity within American traditions and will not represent any single perspective. This course satisfies the American history and government requirement.

103 Non-Western Traditions (3)

Prerequisite: Consent of the dean of the Honors College. A seminar based on the reading and discussion of a few major works of exceptional importance. The works discussed may represent a single region of the non-Western world, but they will cover all eras from the ancient times to the present and will range over several fields of study. These works will not represent any single perspective. This course satisfies the non-Euro-American studies requirement.

201 Inquiries in the Humanities (3)

Prerequisite: Consent of the dean of the Honors College. A seminar intended to introduce students to some of the particular methodologies by which various disciplines in the humanities approach their subjects and achieve their goals. This is demonstrated through the close examination of specific topics and issues as illustrated in key texts.

202 Inquiries in the Fine and Performing Arts (3)

Prerequisite: Consent of the dean of the Honors College. A seminar intended to introduce students to some of the particular methodologies by which various disciplines in the arts approach their subjects and achieve their goals. This is demonstrated through the close examination of specific topics and issues as illustrated in key works of creative art. Students will also take part in various cultural activities (e.g., museum and gallery visits, concerts, theatrical performances).

203 Inquiries in the Social and Behavioral Sciences (3)

Prerequisite: Consent of the dean of the Honors College. A seminar intended to introduce students to some of the particular methodologies by which various disciplines in the social and behavioral sciences approach their subjects and achieve their goals. This is demonstrated by the close examination of specific topics and issues as illustrated in central texts, case studies, etc.

Pierre Laclède Honors College

204 Inquiries in Business and Economics (3)

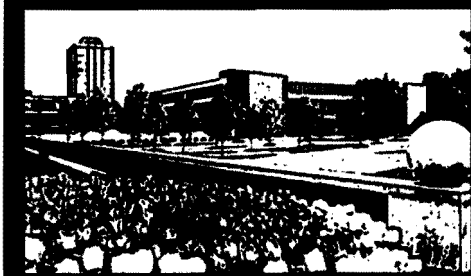
Prerequisite: Consent of the dean of the Honors College. A seminar intended to engage students in the discussion and analysis of some topics of special importance and interest in the fields of business and economics, with attention to the methodologies used to deal with these issues.

205 Inquiries in Mathematics and the Natural Sciences (3)

Prerequisite: Consent of the dean of the Honors College. A seminar intended to introduce students to some of the particular methodologies used by mathematicians and natural scientists to deal with their subjects and achieve their goals. This is demonstrated by an examination of theories and experiments.

300 Advanced Honors Seminar (3)

Prerequisite: Consent of the dean of the Honors College. This interdisciplinary seminar examines a specific topic from various perspectives and underscores the value of making connections between diverse areas of study. The course may be repeated for credit whenever the topic is substantially different.



UM-St. Louis/Washington University Joint Undergraduate Engineering Program

Administration

William P. Darby, Dean
Ph.D., Carnegie Mellon University
Nancy Shields, Associate Dean
Ph.D., Southern Illinois University - Carbondale
Marie I. Cuccia-Brand, Director of Academic and
Student Services
M.A., Washington University
Gloria Gardner, Academic Advisor
B.S., Kent State University

Faculty

Harold J. Brandon, Adjunct Professor
D.Sc., Washington University
Christopher I. Byrnes, Professor
Ph.D., University of Massachusetts
Richard A. Gardner, Professor
Ph.D., Purdue University
Phillip L. Gould, Professor & Advisor
Ph.D., Northwestern University
Raimo J. Hakkinen, Professor
Ph.D., California Institute of Technology
I. Norman Katz, Professor
Ph.D., Massachusetts Institute of Technology
William J. Murphy, Adjunct Professor
D.Sc., Washington University
David A. Peters, Professor
Ph.D., Stanford University
William F. Pickard, Professor
Ph.D., Harvard University
Daniel L. Rode, Professor
Ph.D., Case Western Reserve University
Shankar M. L. Sastry, Professor
Ph.D., University of Toronto
Jerry W. Schweiker, Adjunct Professor
Ph.D., University of Illinois
Barbara A. Shrauner, Professor
Ph.D., Harvard University (Radcliffe)
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Ph.D., Syracuse University
Srinivasan Sridharan, Professor
Ph.D., University of Southampton
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Ph.D., California Institute of Technology
Kevin Z. Truman, Professor & Advisor
Ph.D., University of Missouri - Rolla
Alan C. Wheeler, Affiliate Professor
Ph.D., Stanford University
James C. Ballard, Associate Professor
M.A., Washington University
Roger D. Chamberlain, Associate Professor
D.Sc., Washington University
Matthew G. Dreifke, Adjunct Associate Professor &
Advisor
M.S., Washington University
H. Richard Grodsky, Associate Professor & Advisor
D.Sc., Washington University
Theodosios Korakianitis, Associate Professor
Sc.D., Massachusetts Institute of Technology

John D. Corrigan, Adjunct Assistant Professor

Ph.D., University of Missouri
Michael T. Pauken, Assistant Professor & Advisor
Ph.D., Georgia Institute of Technology

General Information

The Joint Undergraduate Engineering Program of UM-St. Louis and Washington University was approved in 1993 by the University of Missouri and the Coordinating Board for Higher Education to support non-traditional, place-bound students who wish to pursue a bachelor's degree in engineering.

The program is designed to offer course work beyond the pre-engineering courses at UM-St. Louis and the area community colleges. Pre-engineering and general education courses are offered at UM-St. Louis and upper-level engineering courses are offered on the Washington University campus. 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 (BSCE), a Bachelor of Science in Electrical Engineering (BSEE), or a Bachelor of Science in Mechanical Engineering (BSME).

Professional engineering degree programs are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET). The BSEE, and the BSME have been designed to meet ABET accreditation requirements. However, ABET does not consider degree programs for accreditation before there are graduates. Thus, the first graduates of any new engineering degree program do not technically receive ABET-accredited degrees, but they are typically permitted to take the examinations required for engineering licensure after demonstrating that the course work they completed is at least equivalent to that which one would find in an ABET-accredited degree program.

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).

UM-St. Louis/Washington University Joint Undergraduate Engineering 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 131 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. Except with special permission of the program faculty, to be eligible to take the other upper-level engineering courses (those with course numbers starting with the letter "J"):

All students must first complete JEMT 217, Engineering Mathematics, with a minimum grade of C-.

Mechanical and Electrical Engineering majors must also complete JEE 180, Introduction to Electrical Networks with a minimum grade of C-.

Civil engineering majors must complete either JEE 180, Introduction to Electrical Networks or JCHE 343, Environmental Engineering Chemistry, with a minimum grade of C-.

A minimum grade of C is necessary to meet the prerequisite requirement for any course.

Pre-Engineering Requirements

Mathematics 80, Analytic Geometry/Calculus I
Mathematics 175, Analytic Geometry/Calculus II
Mathematics 180, Analytic Geometry/Calculus III
Mathematics 202, Differential Equations
Chemistry 11, Introductory Chemistry I
Chemistry 12, Introductory Chemistry II
Physics 111, Physics: Mechanics & Heat
Physics 112, Physics: Electricity, Magnetism & Optics
Engineering 144, Statics
Engineering 145, Dynamics
English 10, Composition

Humanities Electives*

Social Sciences Electives*

Engineering Core Requirements

JCS 36, Introduction to Computing
JEMT 217, Engineering Mathematics
JEC 210, Engineering Communications
JME 220, Thermodynamics
JME 225, Materials Science
JME 331, Control Systems I**
JEE 180, Introduction to Electrical Networks** OR
JCHE 343, Environmental Engineering Chemistry

JEE 150, Electrical Laboratory I**

**Required for electrical and mechanical engineering majors only.

Civil Engineering Major Requirements

JCE 045, Engineering Graphics
JCE 116, Surveying
JCE 241, Structural Analysis
JCE 242, Structural Design
JCE 252, Environmental Engineering Science
JCE 276, Open Channel Hydraulics
JCE 319, Soil Mechanics
JCE 320, Soil Exploration and Testing
JCE 374, Economic Decisions in Engineering
JCE 375, Introduction to Urban Planning
JCE 376, Site Planning and Engineering OR
JCE 382, Design of Water Quality Control Facilities
JCE 384, Probabilistic Methods in Civil Engineering Design
JCE 399, Senior Civil Engineering Seminar
JCE 372, Legal Aspects of Construction OR
JEP 361, Introduction to Environmental Law and Policy
JME 141, Mechanics of Deformable Bodies
JME 270, Fluid Mechanics
JME 280, Fluid Mechanics Laboratory
 Civil Engineering Electives (200-399)

Electrical Engineering Major Requirements

JEMT 226, Probability and Statistics for Engineering
JEE 160, Digital Logic
JEE 190, Introduction to Digital and Linear Electronics
JEE 214, Electromagnetic Fields
JEE 227, Power, Energy, and Polyphase Circuits
JEE 279, Signal Analysis for Electronic Systems and Circuits
JEE 316, Electrical Energy Laboratory
JEE 355, Digital Systems Laboratory
JEE 380, Senior Design
 Electrical Engineering Electives (200-399)

Mechanical Engineering Major Requirements

JEMT 226, Probability and Statistics for Engineering
JME 041, Introduction to Engineering Design
JME 141, Mechanics of Deformable Bodies
JME 204, Analytical Approaches to Design
JME 221, Energetics for Mechanical Engineers
JME 222, Machine Design
JME 270, Fluid Mechanics
JME 280, Fluid Mechanics Laboratory
JME 271, Principles of Heat Transfer
JME 281, Heat Transfer Laboratory
JME 317, Dynamic Response of Physical Systems and
JME 318, Dynamic Response Laboratory
JME 390, Senior Design
JME 394, Mechanical Engineering Design Lab
 Mechanical Engineering Electives (200-399)

*Humanities and Social Sciences Electives

The student's choice of humanities and social sciences electives must meet both the UM-St. Louis General Education Requirements and the Humanities and Social Sciences Requirements of the Joint Undergraduate Engineering Program. Check with your advisor for details. In particular:

UM-St. Louis/Washington University Joint Undergraduate Engineering Program

A course in American history or government, or in Missouri history or government must be included. The cultural diversity requirement must be fulfilled. At least 8 credit hours must be in one department or area within humanities or social sciences; of these 8 credit hours, at least 1 credit hour must be in a course at the junior level or higher, taken at a four-year institution. Some courses that fulfill the humanities [H] or social sciences [SS] breadth of study requirement do not count as Humanities and 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.

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.

Minor in Environmental Engineering Science

A program of 18 semester hours is required to earn the Minor in Environmental Engineering Science. The minor is designed to provide formal recognition to recipients of bachelor's degrees in civil, electrical, or mechanical engineering that they have acquired the education necessary for entry-level careers as environmental professionals. They will also have a solid foundation to undertake graduate-level education in environmental engineering and science.

Enrollment in all courses in the Minor in Environmental Engineering Science is limited to students who have been admitted to candidacy for the Bachelor of Science in Civil Engineering, the Bachelor of Science in Electrical Engineering, or the Bachelor of Science in Mechanical Engineering in the UM-St. Louis/Washington University Joint Undergraduate Engineering Program. The minor may only be awarded to students who earn the Bachelor of Science in Civil Engineering, the Bachelor of Science in Electrical Engineering, or the Bachelor of Science in Mechanical Engineering in the UM-St. Louis/Washington University Joint Undergraduate Engineering Program.

JCHE 343, Environmental Engineering Chemistry
JCE 252, Environmental Engineering Science (EE, ME Majors) OR
JCE 375, Introduction to Urban Planning (CE Majors)
JCE 308, Environmental Engineering Laboratory - Water/Soil OR
JCE 309, Environmental Engineering Laboratory - Air
JCE 382, Design of Water Quality Control Facilities
JEP 337, Environmental Risk Assessment
JEP 361, Introduction to Environmental Law and Policy

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 engineering design, and engineering science, as shown below.

Each engineering student must complete a curriculum that contains at least 18 semester hours of engineering design and 36 semester hours of engineering science content, including all courses: pre-engineering requirements, engineering core requirements, major requirements, and electives. Civil, electrical, and mechanical engineering majors should consult with their advisors to select electives at the 200 and 300 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 UM-St. Louis/Washington University Joint Undergraduate Engineering Program. Students who include transfer courses in their curricula should consult with their advisors to be sure that these requirements are met.

UM-St. Louis/Washington University Joint Undergraduate Engineering Program

Course Number	Semester Hours	Engineering Design	Engineering Science	Course Number	Semester Hours	Engineering Design	Engineering Science
Engr 10	1.0	0.0	0.0	JEE 316	3.0	1.5	1.5
Engr 144	3.0	0.0	3.0	JEE 321	3.0	1.2	0.0
Engr 145	3.0	0.0	3.0	JEE 332	3.0	1.0	2.0
JCE 45	3.0	1.0	2.0	JEE 345	3.0	1.0	2.0
JCE 116	3.0	0.0	3.0	JEE 355	3.0	2.2	0.8
JCE 241	3.0	0.5	2.5	JEE 358	3.0	1.5	1.5
JCE 242	3.0	2.5	0.5	JEE 360	3.0	1.3	1.7
JCE 252	3.0	1.0	2.0	JEE 368	3.0	1.0	2.0
JCE 274	3.0	0.0	3.0	JEE 380	3.0	3.0	0.0
JCE 276	3.0	0.5	2.5	JEMT 217	4.0	0.0	0.0
JCE 300	1.0-6.0	Varies	Varies	JEMT 226	3.0	0.0	0.0
JCE 308	3.0	0.0	2.0	JEP 281	3.0	1.5	1.5
JCE 309	3.0	0.0	0.0	JEP 337	3.0	0.8	2.2
JCE 310	3.0	3.0	0.0	JEP 361	3.0	0.0	0.0
JCE 319	3.0	1.0	2.0	JME 41	3.0	1.5	1.5
JCE 320	1.0	0.0	1.0	JME 141	3.0	0.5	2.5
JCE 360	3.0	3.0	0.0	JME 204	3.0	3.0	0.0
JCE 364	3.0	1.5	1.5	JME 220	3.0	0.0	3.0
JCE 369	3.0	3.0	0.0	JME 221	3.0	0.0	3.0
JCE 372	3.0	0.0	0.0	JME 222	3.0	3.0	0.0
JCE 373	3.0	1.0	2.0	JME 225	4.0	0.0	4.0
JCE 374	3.0	0.8	2.2	JME 262	3.0	0.0	3.0
JCE 375	3.0	1.5	1.5	JME 270	3.0	0.0	3.0
JCE 376	3.0	3.0	0.0	JME 271	3.0	0.0	3.0
JCE 377	3.0	0.0	0.0	JME 280	1.0	0.0	1.0
JCE 378	3.0	1.0	2.0	JME 281	1.0	0.0	1.0
JCE 382	3.0	3.0	0.0	JME 300	1.0-6.0	Varies	Varies
JCE 384	3.0	1.5	1.5	JME 316	3.0	0.5	2.5
JCE 386	3.0	3.0	0.0	JME 317, 318	4.0	1.0	3.0
JCE 399	1.0	0.0	0.0	JME 319	3.0	0.0	0.0
JCHE 343	3.0	0.0	2.0	JME 324	3.0	0.5	2.5
JCS 36	4.0	2.0	2.0	JME 325	3.0	2.0	1.0
JEC 210	3.0	0.0	0.0	JME 329	3.0	1.0	2.0
JEE 150	3.0	1.0	2.0	JME 331	3.0	1.0	2.0
JEE 160	3.0	1.5	1.5	JME 350	3.0	1.0	2.0
JEE 180	3.0	0.8	2.2	JME 353	3.0	3.0	0.0
JEE 190	3.0	0.8	2.2	JME 372	3.0	0.0	3.0
JEE 214	3.0	1.0	2.0	JME 374	3.0	1.5	1.5
JEE 227	3.0	1.3	1.7	JME 376	3.0	0.5	2.5
JEE 262	3.0	1.0	2.0	JME 378	3.0	1.5	1.5
JEE 279	3.0	1.0	2.0	JME 381	3.0	0.5	2.5
JEE 280	3.0	1.0	2.0	JME 382	3.0	0.5	2.5
JEE 290	3.0	1.0	2.0	JME 390	4.0	4.0	0.0
JEE 292	3.0	1.0	2.0	JME 394	1.0	1.0	0.0
JEE 310	3.0	1.0	2.0				

**UM-St. Louis/Washington University
Joint Undergraduate Engineering Program**

Fees

Students register on the UM-St. Louis campus and pay UM-St. Louis fees plus an engineering fee for both Pre-engineering and Engineering courses. Limits on enrollments are determined by the availability of resources.

For Further Information

For information about enrolling in this program, please contact the UM-St. Louis/Washington University Joint Undergraduate Engineering Program at (314) 516-6800, or the Washington University School of Engineering and Applied Science at (314) 935-6100.

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 twenty-first 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.

**UM-St. Louis/Washington University
Joint Undergraduate Engineering Program**

Course Descriptions

Prerequisites may be waived by consent of the Joint Program faculty.

Engineering

10 Introduction to Engineering (1)

Course consists of a series of lectures on engineering, fields of study within engineering, the engineering profession, types of work activities, and professional registration. Introduction to team building and the teamwork approach to projects and problem-solving common in an engineering curriculum and in the engineering profession. Guest lecturers will participate.

144 Statics (3)

Prerequisites: Math 175 and Physics 111. Statics of particles and rigid bodies. Equivalent systems of forces. Distributed forces: centroids. Applications to trusses, frames, machines, beams, and cables. Friction. Moments of inertia. Principle of virtual work and applications.

145 Dynamics (3)

Prerequisite: Engineering 144. Review of vector algebra and calculus. Kinematics of a particle. Newton's laws and the kinetics of a particle. Work and energy. Impulse and momentum. Kinematics of rigid bodies. General theorems for systems of particles. Kinetics of rigid bodies. The inertia tensor.

Chemical Engineering

JCHE 343 Environmental Engineering Chemistry (3)

Prerequisite: Chemistry 12. Introduction to the engineering aspects of air, water, soil, and geosphere chemistry. Toxicology and hazardous wastes. Pollution sources, dynamics, and ultimate fates. Sampling, control strategies, and regulations.

Civil Engineering

JCE 045 Engineering Graphics (3)

Prerequisite: Junior standing. Techniques in graphic communication and problem solving and design utilizing freehand sketches and computer graphics. Principles of orthographic projection, pictorial drawing, sectional views, dimensioning and tolerancing. Computer drawing and modeling: layout techniques, editing commands, drawing management, and plotting. Design project: individual or small group assignments, the design process, preliminary sketches, analysis, project modeling, detail and assembly drawings. This course is required for civil engineering majors.

JCE 116 Surveying (3)

Horizontal and vertical control surveys, including traverses, triangulation, trilateration, and leveling; basic adjustments of observations; geodetic data; coordinate systems. Basic route surveying, including horizontal and vertical curves.

JCE 241 Structural Analysis (3)

Prerequisite: JME 141. A review of the calculation of reactions, shear, and bending moment. Definition, construction and use of influence lines. Deflections for statically determinate structures using the virtual work method. Analysis of statically indeterminate trusses using the method of consistent deformations. Analysis of continuous beams and planar frames using the consistent deformation, slope-deflection and moment distribution methods. The influence of span on strength, stability, and economy of structures. An introduction to structural analysis software.

JCE 242 Structural Design (3)

Prerequisites: JME 225 and JCE 241. Fundamentals of structural design in steel, reinforced concrete, and timber. Familiarization with the sources of various design codes and practice in interpreting them. Computer graphics applications.

JCE 252 Environmental Engineering Science (3)

Prerequisite: JME 270 (may be taken concurrently) or permission of instructor. Application of the basic principles of chemistry, microbiology, and fluid mechanics to the analysis of environmental problems, especially those involving control of water and land contamination. Properties of municipal and industrial waste water, solid waste, and hazardous waste. Estimation of assimilative capacity and other characteristics of receiving waters. Introduction to unit processes and unit operations used in the treatment of municipal and industrial waste water. Design of processes and facilities used for treating drinking water, waste water, and sludge disposal. Waste minimization and recycling in both industrial and municipal settings.

JCE 274 Hydraulics and Hydrology (3)

Prerequisite: JME 270 (may be taken concurrently). The concepts and theory of hydraulics and hydrology are discussed through lectures and practical engineering applications. Open channel flow, hydrograph analysis, watershed hydrology, frequency concepts, hydraulic design, and sedimentation are addressed.

JCE 276 Open Channel Hydraulics (3)

Prerequisite: JME 270. The principles of open channel flow will be discussed and illustrated with practical examples. Methods for channel design, storm sewer, culvert and bridge analysis will be presented using the concepts of gradually-varied, steady flow. A design project using computerized analysis and design is used to implement concepts in a large practical application.

**UM-St. Louis/Washington University
Joint Undergraduate Engineering Program**

JCE 300 Independent Study (1-6)

Prerequisites: Junior standing and consent of faculty advisor. Independent investigation of a civil engineering topic of special interest to a student performed under the direction of a faculty member.

**JCE 308 Environmental Engineering Laboratory -
Water/Soil (3)**

Prerequisite: JCHE 343. Laboratory experiments to illustrate the application of engineering fundamentals to environmental systems. Characterization and control of water/soil pollutants. Introduction to relevant analytical instrumentation and laboratory techniques. Laboratory work supported with theoretical analysis and modeling as appropriate.

**JCE 309 Environmental Engineering Laboratory - Air
(3)**

Prerequisite: JCHE 343. Laboratory Experiments to illustrate the application of engineering fundamentals to environmental systems. Characterization and control of air pollutants. Introduction to relevant analytical instrumentation and laboratory techniques. Laboratory work supported with theoretical analysis and modeling as appropriate.

JCE 310 Design of Timber Structures (3)

Prerequisites: JCE 241 and JCE 242. Study of basic physical and mechanical properties of wood and design considerations. Design and behavior of wood beams, columns, beam-columns, connectors, and fasteners. Introduction to plywood and glued laminates members. Analysis and design of structural diaphragms and shear walls.

JCE 319 Soil Mechanics (3)

Prerequisites: JME 141 and JME 270. Basic geology as it relates to index and classification properties of soil. Exploration, sampling, and testing techniques. Soil classification systems. Clay minerals and soil structures. Compaction and stabilization. Capillary, shrinkage, swelling, and frost action in soils. Effective stress, permeability, seepage, and flow nets. Consolidation and consolidation settlements. Stresses in soil. Time rate of consolidation. Mohr's circle, stress path, and failure theories. Shearing strength of sand and clays.

JCE 320 Soil Exploration and Testing (1)

Prerequisite: JCE 319 (may be taken concurrently). Soil exploration; in-situ testing, laboratory testing of soil; processing of test data using a microcomputer; statistical analysis of test data; use of test results in the decision-making process.

JCE 360 Highway and Traffic Engineering (3)

Prerequisites: JCE 116 and senior standing. Study of basic highway design and traffic circulation principles. Study of design elements of alignment, profile, cross-section, intersection types, interchange types, and controlled-access highways. Investigation of functional highway classification. Traffic volume, delay and accident studies. Analysis of highway capacity of uninterrupted flow, interrupted flow. Freeway, ramp and weaving sections.

JCE 364 Foundations (3)

Prerequisites: JCE 242, JCE 319 and JCE 320. Principal problems in design and construction of foundations for bridges and buildings. Bearing capacity of deep and shallow foundations; pressure on retaining walls and slope stability; modern developments in piling, cofferdams, open caissons, pneumatic caissons.

JCE 369 Construction Management Project (3)

Prerequisites: JCE 373 and JEP 281. The course entails the study of principles and steps involved in the development of a project from design through bidding and construction with emphasis on preconstruction planning and construction operations. The students will be required to submit a report on project budget, bidding strategy and construction schedule. Lecture topics will be supplemented by a resource pool of consultants on estimating, scheduling and contracting who will provide advice and guidance to the students.

JCE 372 Legal Aspects of Construction (3)

Prerequisite: Junior standing. A survey of the legal problems of the construction manager. Including but not limited to, liability in the areas of contracts, agency, torts, assurance, bad judgment and oversight.

**JCE 373 Construction Operations and Management
(3)**

Prerequisite: Junior standing. The construction industry, its development, components, and organization. Contracting methods. Applications and limitations. Selection of equipment using production analysis and economics. Field engineering, including form design, shoring, embankment design. Purchasing and change orders. Safety and claims.

JCE 374 Economic Decisions in Engineering (3)

Prerequisite: Junior standing. Principles of economics involved in engineering decisions. Decisions between alternatives based on the efficient allocation of resources. Topics include the time element in economics, analytical techniques for economy studies, and taxes.

UM-St. Louis/Washington University Joint Undergraduate Engineering Program

JCE 375 Introduction to Urban Planning (3)

Prerequisite: Senior standing. A focus on the fundamental factors and techniques that the civil engineer must consider: population, economic base, land use, urban design, regional analysis, fiscal analysis, zoning, and public facilities analysis. Synthesis of these techniques into a major student project, typically involving groups of three to six students. Each project is assigned by the instructor and usually involves a real-life situation or problem that requires original data collection. In-class presentation, discussion, and critique of each group project.

JCE 376 Site Planning and Engineering (3)

Prerequisite: Senior standing. A focus on the legal, engineering, and economic aspects of planning and design of facilities at a site-specific level. Concepts of legal and economic feasibility of site design are developed in conjunction with the study of civil engineering activities involved in dealing with urban design alternatives for residential, commercial, industrial, and recreational land uses. Case studies and review of current legislation affecting site planning and engineering are undertaken, culminating in a major design project.

JCE 377 Decision Analysis and Construction Applications (3)

Introduction and application of systems engineering and statistics toward solving construction and civil engineering problems. Included are the following topics: network and linear programming models, construction and evaluation of decision trees to clarify choice of actions under uncertainty, probability distributions, sample statistics, linear regression models, sampling plans for quality assurance. Personal computer usage emphasized for problem solving.

JCE 378 Knowledge-Based Expert Systems in Civil Engineering (3)

Prerequisite: JCS 36. Topics relating to the development of expert systems discussed with emphasis on application in civil and structural engineering. Subjects include knowledge engineering, frame- and rule-based expert systems, use of expert shells and tools, prototyping, and reasoning with uncertainty. Case studies and computer exercises supplement lectures. Students are expected to develop a prototype expert system.

JCE 382 Design of Water Quality Control Facilities (3)

Prerequisite: JCE 252. Application of environmental engineering principles to design of water and wastewater treatment facilities. Critical review of process design issues associated with physical, chemical, and biological treatment processes. Definition of problems and objectives, evaluation of alternatives, and use of these concepts in process design. Design-oriented class/group project.

JCE 384 Probabilistic Methods in Civil Engineering Design (3)

Prerequisite: JCE 242 (may be taken concurrently). Probability concepts. Analytical models of random phenomena. Functions of random variables. Estimating parameters from data. Empirical determination of distribution models. Regression and correlation analyses. Monte Carlo simulation. Detailed examples of the application of probabilistic methods to structural, transportation, hydrologic, and environmental system design.

JCE 386 Design of Masonry Structures (3)

Prerequisite: JCE 242. History of masonry construction; masonry materials and components; loadings for masonry structures; fundamentals of working stress design; fundamentals of strength design; design of gravity load resisting elements; design of lateral load resisting elements; details, connections and joints; design of low-rise buildings; design of high-rise buildings; design for water penetration resistance; quality control/inspection.

JCE 399 Senior Civil Engineering Seminar (1)

Prerequisite: Senior standing. Students will research assigned topics of importance to graduates entering the Civil Engineering profession and prepare oral presentations and a written report. Student presentations will be augmented by lectures from practicing professionals. Topics include professional registration, early career development, graduate study, effective presentations, construction quality, and case histories of civil engineering projects.

Computer Science

JCS 36 Introduction to Computing (4)

Workshop course (lectures and supervised laboratory sessions) covering the fundamental organization and operating principles of digital computers and the systematic design and development of well-structured programs. After an intensive exposure to algorithmic principles and programming techniques and practices using the JAVA language, students learn about a computer's internal structure through the use of a simple Von Neumann machine simulator.

Electrical Engineering

JEE 150 Electrical Laboratory I (3)

Prerequisite: JEE 180. Lectures and laboratory exercises related to sophomore topics in introductory networks and basic electronics.

JEE 160 Digital Computers I: Organization and Logical Design (3)

Prerequisite: JCS 36. Digital computers and digital information-processing system; Boolean algebra, principles and methodology of logical design; machine language programming; register transfer logic; microprocessor hardware, software, and interfacing; fundamentals of digital circuits and systems; computer organization and control; memory systems; arithmetic unit design. Occasional laboratory exercises.

UM-St. Louis/Washington University Joint Undergraduate Engineering Program

JEE 180 Introduction to Electrical Networks (3)

Prerequisites: Physics 112 and Math 202 (may be taken concurrently). Elements, sources, and interconnects. Ohm's and Kirchhoff's laws, superposition and Thevenin's theorem; the resistive circuit, transient analysis, sinusoidal analysis, and frequency response.

JEE 190 Introduction to Digital and Linear Electronics (3)

Prerequisite: JEE 180. Introduction to contemporary electronic devices and their circuit applications. Terminal characteristics of active semiconductor devices. Incremental and D-C models of junction diodes, bipolar transistor (BJTs), and metal-oxide semiconductor field effect transistors (MOSFETs) are developed and used to design single- and multi-stage amplifiers. Models of the BJT and MOSFET in cutoff and saturation regions are used to design digital circuits.

JEE 214 Engineering Electromagnetics I: Fundamentals (3)

Prerequisite: JEMT 217. Electromagnetic theory as applied to electrical engineering: vector calculus; electrostatics and magnetostatics; Maxwell's equations, including Poynting's theorem and boundary conditions; uniform plane-wave propagation; transmission lines - TEM modes, including treatment of general, lossless line, and pulse propagation; introduction to guided waves; introduction to radiation and scattering concepts.

JEE 227 Power, Energy, and Polyphase Circuits (3)

Prerequisite: JEE 180. Fundamental concepts of power and energy; electrical measurements; physical and electrical arrangement of electrical power systems; polyphase circuit theory and calculations; principle elements of electrical systems such as transformers, rotating machines, control, and protective devices, their description and characteristics; elements of industrial power system design.

JEE 262 Digital Computers II: Architecture (3)

Prerequisite: JEE 160. Study of interaction and design philosophy of hardware and software for digital computer systems: Machine organization, data structures, I/O considerations. Comparison of minicomputer architectures.

JEE 279 Signal Analysis for Electronic Systems and Circuits (3)

Prerequisites: JEE 180 and JEMT 217. Elementary concepts of continuous-time and discrete-time signals and systems. Linear time-invariant (LTI) systems, impulse response, convolution, Fourier series, Fourier transforms, and frequency-domain analysis of LTI systems. Laplace transforms, Z-transforms, and rational function descriptions of LTI systems. Principles of sampling and modulation. Students participate weekly in recitation sections to develop oral communications skills using class materials.

JEE 280 Network Analysis (3)

Prerequisite: JEE 279. Theoretical and practical aspects of electrical networks. Loop and nodal analysis of multiport networks. Transfer functions, admittance and impedance functions, and matrices. Magnitude and phase relations. Butterworth, Chebyshev, and other useful network response functions. Network theorems. Computer-aided design. Synthesis of passive (LC, RC, RLC) networks and of active (RC) networks.

JEE 290 Principles of Electronic Devices (3)

Prerequisite: Physics 112. Introduction to the solid-state physics of electronic materials and devices, including semiconductors, metals, insulators, diodes and transistors. Crystal growth technology and fundamental properties of crystals. Electronic properties and band structure of electronic materials, and electron transport in semiconductor materials. Fabrication of pn junction diodes, metal-semiconductor junctions, and transistors and integrated-circuit chips. Fundamental electrical properties of rectifying diodes and light-emitting diodes, bipolar transistors and field-effect transistors. Device physics of diodes and transistors, large-signal electrical behavior and high-frequency properties.

JEE 292 Electronic Devices and Circuits (3)

Prerequisite: JEE 190. Introduction to semiconductor electronic devices: transistors and diodes. Device electrical DC and high-frequency characteristics. Bipolar transistors, field-effect transistors, and MOS transistors for analog electronics applications. Transistor fabrication as discrete devices and as integrated-circuit chips. Large-signal analysis of transistor amplifiers: voltage gain, distortion, input resistance and output resistance. Analysis of multitransistor amplifiers: Darlington, Cascode, and coupled-pair configurations. Half-circuit concepts, differential-mode gain, common-mode gain, and differential-to-single-ended conversion. Transistor current sources, active loads, and power-amplifier stages. Applications to operational amplifiers and feedback circuits.

JEE 310 Engineering Electromagnetics II: Applications (3)

Prerequisite: JEE 214. Study of important applications of electromagnetic theory. Solution of electrostatic and magnetostatic problems involving Laplace and Poisson's equations subject to boundary conditions. Maxwell's equations, including boundary conditions for dielectrics and conductors, reflection and transmission characteristics with effects due to losses. Study of guided waves in rectangular and optical wave guides, including effects of dispersion. S-parameters and transmission networks, including S-matrix properties, relation to impedance, reflection coefficient, VSWR, and Smith chart. Study of antennas, including exposure to terminology and thinwire antennas.

UM-St. Louis/Washington University Joint Undergraduate Engineering Program

JEE 316 Electrical Energy Laboratory (3)

Prerequisite: JEE 150. Experimental studies of principles important in modern electrical energy systems. Topics: power measurement, transformers, batteries, static frequency converters, thermoelectric cooling, solar cells, electrical lighting, induction, commutator, and brushless motors, synchronous machines.

JEE 321 Communications Theory and Systems (3)

Prerequisites: JEE 279 and JEMT 226. Introduction to the concepts of transmission of information via communication channels. Amplitude and angle modulation for the transmission of continuous-time signals. Analog-to-digital conversion and pulse code modulation. Transmission of digital data. Introduction to random signals and noise and their effects on communication. Optimum detection systems in the presence of noise. Elementary information theory. Overview of various communication technologies such as radio, television, telephone networks, data communication, satellites, optical fiber, and cellular radio.

JEE 332 Control Systems II (3)

Prerequisite: JEE 331. The control of physical systems with a digital computer, microprocessor, or special-purpose digital hardware is becoming very common. Course continues JEE 331 to develop models and mathematical tools needed to analyze and design these digital, feedback-control systems. Linear, discrete dynamic systems. The Z-transform. Discrete equivalents to continuous transfer functions. Sampled-data control systems. Digital control systems design using transfer and state-space methods. Systems comprised of digital and continuous subsystems. Quantization effects. System identification. Multivariable and optimum control.

JEE 345 Digital Signal Processing (3)

Prerequisite: JEE 279. Introduction to analysis and synthesis of discrete-time linear time-invariant (LTI) systems. Discrete-time convolution, discrete-time Fourier transform, Z-transform, rational function descriptions of discrete-time LTI systems. Sampling, analog-to-digital conversion and digital processing of analog signals. Techniques for the design of finite impulse response (FIR) and infinite impulse response (IIR) digital filters. Hardware implementation of digital filters and finite-register effects. The discrete Fourier transform and the fast Fourier transform (FFT) algorithm.

JEE 355 Digital Systems Laboratory (3)

Prerequisites: JEE 160 and JEE 190. Procedures for reliable digital design, both combinational and sequential; understanding manufacturers' specifications; use of special test equipment; characteristics of common SSI, MSI, and LSI devices; assembling, testing, and simulating design; construction procedures; maintaining signal integrity. Several single-period laboratory exercises, several design projects, and application of a microprocessor in digital design. Microprocessor programs are written in assembly language on a host computer and down loaded to the laboratory station for debugging. One lecture and one laboratory period a week.

JEE 358 Computer-Aided Design of Electronic Systems (3)

Prerequisites: JEE 190 and 279. Introduction to computer-aided techniques in the solution of network and electronic design problems, including filters; analysis of linear and nonlinear circuits; methods for numerical integration, evaluation of the Fourier integral; numerical methods for solving differential equations, automated methods for design; sparse matrix techniques. Use of problem-oriented languages such as SPICE. Methods for the analysis and design of digital circuits and systems.

JEE 360 Digital Computers: Switching Theory (3)

Prerequisite: JEE 160. Advanced topics in switching theory as employed in the analysis and design of various information- and material-processing systems. Combinational techniques; minimization, logic elements, bilateral devices, multiple output networks, symmetrical and iterative functions, threshold logic, state identification and fault detection, hazards, and reliable design. Sequential techniques: synchronous circuits, state tables, machine minimization, state assignment, asynchronous circuits, finite state machines.

JEE 368 Applied Optics (3)

Prerequisite: JEE 214. Topics relevant to the engineering and physics of conventional as well as experimental optical systems and applications explored. Items addressed include geometrical optics, Fourier optics such as diffraction and holography, polarization and optical birefringence such as liquid crystals, and nonlinear optical phenomena and devices.

JEE 380 Senior Design Project (3)

Prerequisite: Senior standing. Working in teams, students address design tasks assigned by faculty. Each student participates in one or more design projects in a semester. Projects are chosen to emphasize the design process, with the designer choosing one of several paths to a possible result. Collaboration with industry and all divisions of the University is encouraged.

**UM-St. Louis/Washington University
Joint Undergraduate Engineering Program**

Engineering and Policy

JEP 281 Topics in Engineering Management (3)

Prerequisite: Junior standing. Techniques relating to managing engineering professionals and engineering activities are introduced and discussed. The engineer's transition into project and project team management. Role of engineering and technology in major corporations. Engineering managerial functions, including production and use of financial information in planning, scheduling, and assessing engineering projects. Motivation of individual and group behavior among technical professionals. Macroeconomic factors influencing technical decision-making and engineering project management. Additional topics will vary from year to year, but will typically include government relations, regulation, compensation, ethics, production, operations, the quality function, and technological innovation. Extensive use of case study analysis, including written reports and in-class presentations by students.

JEP 337 Environmental Risk Assessment (3)

Prerequisite: JCE 374 or JEMT 226. Definition of risk and uncertainty. Risk assessment concepts and their practical application. Principles of human health and ecological toxicology. Bioassays. Exposure characterization, modeling, and measurement. Qualitative and quantitative evaluation of human and animal studies. Dose-response models and parameter estimation. Low-dose extrapolation. Structure activity relationships. Estimating individual risk and aggregate risk. Risk assessment methods in regulatory decision making and standard setting. Application of risk assessment in hazardous waste site evaluation and remediation.

JEP 361 Introduction to Environmental Law and Policy (3)

Prerequisite: Junior standing. Survey of the most prominent federal laws governing environmental compliance and pollution control. Examines laws applicable to environmental impact statements, air pollution, water pollution, and hazardous waste. Addresses policy concerning the relative merits of using technological capabilities as compared to health risks in setting environmental standards. Discusses the need for environmental regulation to protect societal resources.

Engineering Communications

JEC 210 Engineering Communications (3)

Prerequisites: English 10 and junior standing. Persistent concerns of grammar and style. Analysis and discussion of clear sentence and paragraph structure and of organization in complete technical documents. Guidelines for effective layout and graphics. Examples and exercises stressing audience analysis, graphic aids, editing, and readability. Videotaped work in oral presentation of technical projects. Writing assignments include descriptions of mechanisms, process instructions, basic proposals, letters and memos, and a long formal report.

Engineering Mathematics

JEMT 217 Engineering Mathematics (4)

Prerequisite: Math 202. The Laplace transform and applications; series solutions of differential equations, Bessel's equation, Legendre's equation, special functions; matrices, eigenvalues, and eigenfunctions; vector analysis and applications; boundary value problems and spectral representation; Fourier series and Fourier integrals; solution of partial differential equations of mathematical physics.

JEMT 226 Probability and Statistics for Engineering (3)

Prerequisite: JEMT 217. Study of probability and statistics together with engineering applications. Probability and statistics: random variables, distribution functions, density functions, expectations, means, variances, combinatorial probability, geometric probability, normal random variables, joint distribution, independence, correlation, conditional probability, Bayes theorem, the law of large numbers, the central limit theorem. Applications: reliability, quality control, acceptance sampling, linear regression, design and analysis of experiments, estimation, hypothesis testing. Examples are taken from engineering applications. This course is required for electrical and mechanical engineering majors.

UM-St. Louis/Washington University Joint Undergraduate Engineering Program

Mechanical Engineering

JME 41 Introduction to Engineering Design (3)

An introduction to engineering design in the context of mechanical engineering. The course is presented in two parallel tracks. In the hands-on laboratory track, students first complete a series of experiments that introduce physical phenomena related to mechanical engineering. Understanding of these phenomena is achieved by designing and building simple devices and machines. The hands-on track then proceeds to a design contest in which students design and build from a kit of parts a more significant machine that competes in a contest held at the end of the course. In the engineering graphics track, students learn the fundamentals of spatial reasoning and graphical representation. Freehand sketching skills include pictorial and orthographic views are applied to the design process. Computer modeling techniques provide accuracy, analysis and visualization tools necessary for the design of the contest machine. Detailing the design for production (including fasteners, dimensioning and tolerancing on part and assembly drawings) is applied to the student's contest machine.

JME 141 Mechanics of Deformable Bodies (3)

Prerequisites: Math 175 and Engineering 144. Normal and shear stresses and strains. Stress-strain diagrams. Hooke's law and elastic energy. Thermal stresses. Stresses in beams, columns, torsional members, and pressure vessels. Elastic deflection of beams and shafts. Statically indeterminate structures. Mohr's circle of stress. Stability concepts.

JME 204 Analytical Approaches to Design (3)

Prerequisites: JME 041; JME 141 and JEMT 217 (may be taken concurrently). Provides a thorough overview of the steps in the engineering design process and introduces analytical/quantitative techniques applicable to each step. Topics include recognition of need, specification, formulation, concept generation, concept selection, embodiment and detail design, optimization, geometric representation for visualization and manufacture, and product life cycle concerns. Case studies introducing and applying analytical techniques such as kinematic/dynamic analysis and the finite element method will be presented. This course is required preparation for subsequent design project courses.

JME 220 Thermodynamics (3)

Prerequisites: Math 175, Chemistry 11 and Physics 111. Classical thermodynamics, thermodynamic properties, work and heat, first and second laws. Entropy, irreversibility, availability. Application to engineering systems.

JME 221 Energetics for Mechanical Engineers (3)

Prerequisite: JME 220. Thermodynamic cycle analysis: vapor power, internal combustion, gas turbine, refrigeration. Maxwell relations and generalized property relationships for non ideal gases. Mixtures of ideal gases, psychrometrics, ideal solutions. Combustion processes, first and second law applications to reacting systems. Chemical equilibrium. Compressible flow in nozzles and diffusers.

JME 222 Introduction to Machine Design (3)

Prerequisites: JCS 36, JME 141 and Math 202. Design of machines and machine components using advanced concepts and analytical tools. Overview and definition of feasibility, synthesis, and analysis as used in design. Determination of loads, material properties, factors of safety and their statistical distributions. Analysis of stress and performance. Failure criteria: yielding, fracture, fatigue, stress-corrosion cracking, creep, etc. Formulation of solutions and optimization of design. Applications to design of shafts, springs, fasteners, belts, chains, bearings, gears, and screws. Use of computer techniques to determine velocities, accelerations, and forces in mechanisms and in stress analysis of components.

JME 225 Materials Science (4)

Prerequisite: Chemistry 11. Introduces the chemistry and physics of engineering materials. Emphasis on atomic and molecular interpretation of physical and chemical properties, the relationships between physical and chemical properties, and performance of an engineering material.

JME 262 Materials Engineering (3)

Prerequisite: JME 225. This course deals with the application of fundamental materials science principles in various engineering disciplines. Topics covered include design of new materials having unique property combinations, selection of materials for use in specific service environments, prediction of materials performance under service conditions, and development of processes to produce materials with improved properties. The structural as well as functional use of metals, polymers, ceramics, and composites will be discussed.

JME 270 Fluid Mechanics (3)

Prerequisites: JEMT 217 and Engineering 145. Fundamental concepts of fluids as continua. Viscosity. Flow field: velocity, vorticity, streamlines. Fluid statics: hydrostatic forces manometers. Conservation of mass and momentum. Incompressible inviscid flow. Dimensional analysis and similitude. Flow in pipes and ducts. Flow measurement. Boundary-layer concepts. Flow in open channels.

UM-St. Louis/Washington University Joint Undergraduate Engineering Program

JME 271 Principles of Heat Transfer (3)

Prerequisites: JME 220, JME 270 and Math 202. Introductory treatment of the principles of heat transfer by conduction, convection, or radiation. Mathematical analysis of steady and unsteady conduction along with numerical methods. Analytical and semiempirical methods of forced and natural convection systems. Heat exchangers: LMTD and ϵ -NTU analysis. Boiling and condensation heat transfer. Radiation between blackbody and real surfaces. Radiation network analysis.

JME 280 Fluid Mechanics Laboratory (1)

Prerequisite: JME 270. Physical laboratory exercises focusing on fluid properties and flow phenomena covered in JME 270. Calibration and use of a variety of equipment; acquisition, processing, and analysis of data by manual as well as automated methods.

JME 281 Heat Transfer Laboratory (1)

Prerequisites: JME 280 and JME 271. Physical laboratory exercises, including some numerical simulations and computational exercises, focusing on heat-transfer phenomena covered in JME 271. Calibration and use of variety of laboratory instrumentation; acquisition, processing, and analysis of data by manual as well as automated methods; training in formal report writing.

JME 300 Independent Study (1-6)

Prerequisites: Junior standing and consent of the faculty advisor. Independent investigation of a mechanical engineering topic of special interest to a student performed under the direction of a faculty member.

JME 316 Advanced Strength and Introductory Elasticity (3)

Prerequisite: JME 141. Introduction to elasticity; indicial notation, stress and strain, material laws. Plane stress and strain problems and illustrations. Torsion of prismatic bars. Energy principles: virtual work, potential energy and complementary energy theorems, reciprocal theorems. Introduction to plates and shells.

JME 317 Dynamic Response of Physical Systems (2)

Prerequisites: Engineering 145 and JEMT 217; JME 317 and JME 318 must be taken during the same semester. Free and forced vibration of mechanical systems with lumped inertia, springs, and dampers. Methods of Laplace transform, complex harmonic balance, and Fourier series. Electrical analogs. Introduction to Lagrange's equations of motion and matrix formulations. Transient response of continuous systems by partial differential equations, by Rayleigh methods, and by lumped parameters.

JME 318 Dynamic Response Laboratory (2)

Prerequisite: JME 317 and JME 318 must be taken during the same semester. Laboratory problems focusing on materials covered in JME 317.

JME 319 Experimental Methods in Fluid Mechanics (3)

Prerequisites: JME 270, JME 280 and consent of instructor. Experimental approach to problem solving and validation of theoretical/computational methods. Uncertainties in measurement. Review of fundamental equations of fluid dynamics, properties of gases and liquids, similarity laws. Boundary layers, transition turbulence, flow separation. Viscoelastic and multi-phase flows. Wind tunnels, water channels, simulation of phenomena in processing equipment. Pressure sensors, including optically-reactive surface paint. Measurement of velocity with pitot- and venturi-tubes, hot-wire anemometry, ultrasonic probes, laser-Doppler (LDV) and particle-image (PIV) instruments. Compressibility corrections. Measurement of skin friction by direct force sensors, Preston- and Stanton-tubes, diffusion analogies, liquid crystals. Flow visualization with laser light sheet; Schlieren, shadowgraph and interferometric methods. Future trends; flow control, impact of microelectronic sensors and actuators. Laboratory demonstrations using available instrumentation.

JME 324 Manufacturing Processes (3)

Prerequisite: Senior standing. Introduction to the processes used in making basic components for machines and structures. Emphasis is on the underlying scientific principles for such manufacturing processes as casting, forging, extrusion and machining.

JME 325 Materials Selection in Engineering Design (3)

Prerequisite: Senior standing. Analysis of the scientific bases of material behavior in the light of research contributions of the last 20 years. Development of a rational approach to the selection of materials to meet a wide range of design requirements for conventional and advanced applications. Although emphasis will be placed on mechanical properties, other properties of interest in design will be discussed, e.g., acoustical, optical and thermal.

JME 329 Flexible Manufacturing Automation (3)

Prerequisite: Senior standing. Survey of the application of robots in the automation of manufacturing industries. Use of robots to increase productivity, to improve quality or to improve safety. Special studies of applications of robots in painting, welding, inspection and assembly.

JME 331 Control Systems I (3)

Prerequisite: JEMT 217. Introduction to automatic control concepts. Block diagram representation of single- and multi-loop systems. Multi-input and multi-output systems. Control system components. Transient and steady-state performance; stability analysis; Routh, Nyquist, Bode, and root locus diagrams. Compensation using lead, lag, and lead-lag networks. Synthesis by Bode plots and root-locus diagrams. Introduction to state-variable techniques, state transition matrix, state-variable feedback.

UM-St. Louis/Washington University Joint Undergraduate Engineering Program

JME 350 Computer-Integrated Manufacturing (3)

Prerequisite: Senior standing. Analysis and design of computer-integrated systems for discrete parts and assemblies manufacturing. Process planning, control, manufacturing decision support systems, microcomputers and networks. Programming of spatially oriented tasks, code generation, system integration. CIMLab assignments.

JME 353 Facilities Design (3)

Prerequisite: Senior standing. The goal of the course is to provide the student with the information and analytical tools necessary to take a product design into production and for the design of an efficient manufacturing facility that will make the production feasible. Quantitative methods in the design of manufacturing facilities. Space allocation, assembly line design, material-handling systems, utilities and environmental design for manufacturing facilities. Facility-location selection. Plant-layout development. Building, organization, communications and support system design. Material-handling equipment, flow and packaging. Automated storage and retrieval systems design. Computer aided design of manufacturing facilities. Environmental requirements and design. Utilities design. In a major project, students will be required to analyze the design of a product and plan the manufacturing facility for its production.

JME 372 Fluid Mechanics II (3)

Prerequisites: JME 220 and JME 270. Mechanics and thermodynamics of incompressible and compressible flows: varying-area adiabatic flow, standing normal and oblique shock waves, Prandtl-Meyer flow, Fanno flow, Rayleigh flow, turbulent flow in ducts and boundary layers.

JME 374 Analysis and Design of Turbomachinery (3)

Prerequisite: Senior standing. The principles of thermodynamics and fluid dynamics applied to the analysis, design and development of turbomachinery for compressible and incompressible flows. Momentum transfer in turbomachines. Design of axial and radial compressors and turbines, diffusers, heat exchangers, combustors, and pumps. Operating characteristics of components and performance of power plants.

JME 376 The Engineering Properties of Materials (3)

Prerequisite: Junior standing. A detailed look at the mechanical, chemical, and surface properties of materials. Topics include elastic properties; plastic deformation; viscoelastic behavior; chemical resistance; corrosion resistance; and the electromagnetic properties of metal, plastic, ceramic, and composite systems.

JME 378 Analysis and Design of Piston Engines (3)

Prerequisite: Senior standing. The principles of thermodynamics and fluid dynamics applied to the analysis, design and development of piston engines. Examination of design features and operating characteristics of diesel, spark-ignition, stratified-charge, and mixed-cycle engines. Study of the effects of combustion, fuel properties, turbocharging and other power-boosting schemes on the power, efficiency and emission characteristics of the engines.

JME 381 Air-Conditioning Systems and Equipment I (3)

Prerequisite: Senior standing. Survey of air conditioning systems. Moist air properties and conditioning processes. Adiabatic saturation. Psychrometric chart. Environmental indices. Indoor air quality. Heat balances in building structures. Solar radiation. Space heating and cooling loads.

JME 382 Air-Conditioning Systems and Equipment II (3)

Prerequisite: JME 381. Fluid flow, pumps, and piping design. Room air distribution. Fans and building air distribution. Mass transfer and measurement of humidity. Direct control of heat and mass transfer. Heat exchangers. Refrigeration systems. Absorption refrigeration.

JME 390 Senior Design Project (4)

Prerequisite: Senior standing. Working in small groups, students address design tasks assigned by faculty. Each group completes three design projects in a semester. Projects are chosen to emphasize the design process, with the designer choosing one of several paths to a possible result. Collaboration with industry is encouraged.

JME 394 Mechanical Engineering Design Lab (1)

Prerequisites: JME 204 and JME 222; JME 390 (may be taken concurrently.) Students are assigned individual design problems of sufficient complexity to require integration of several machines or machine elements. Projects consist of an open-ended, original design or a creative redesign of a machine or a mechanical component or system. Manufacturing and testing of a prototype and performing laboratory evaluation of mechanical systems requiring the application of those engineering science principles inherent to mechanical engineering is expected of each student. Guidance and consultation are provided by the course instructors and staff.

UM-Rolla Engineering Education Center

Faculty

James H. Hahn, P.E., Associate Professor; Director
Ph.D., University of Missouri-Rolla

C. Ben Basye, P.E., Professor Emeritus
Ph.D., Iowa State University

Victor Birman, Professor
Ph.D., Israel Institute of Technology

Anton de S. Brasunas, P.E., Professor Emeritus
Sc.D., Massachusetts Institute of Technology

Chaman L. Sabharwal, Professor
Ph.D., University of Illinois-Urbana

Daniel C. St. Clair, Professor
Ph.D., University of Missouri-Rolla

David A. Shaller, Assistant Professor
J.D., Cleveland State University

General Information

The UM-Rolla Engineering Education Center; UM-Rolla Engineering Education Center was started in 1964 at the request of St. Louis industry and with the encouragement of local universities. It offers Master of Science degrees in the following areas:

Aerospace Engineering
Civil Engineering
Computer Science
Electrical Engineering
Engineering Management
Engineering Mechanics
Environmental Engineering
Mechanical Engineering

Admission to candidacy for these degrees is granted by the University of Missouri-Rolla. Normally admission is granted to persons holding B.S. degrees in engineering from ABET-accredited schools (this does not apply to Computer Science) and whose undergraduate GPA places them in the upper third of their graduating class.

An appropriately selected program of 30 credit hours is required for the Master of Science degree with thesis and a 33 credit hour program is required for the nonthesis Master of Science degree.

Course Listings

Course listings for the various semesters may be obtained by writing or phoning the Engineering Education Center. Course descriptions are listed in the UMR graduate catalog.

The Engineering Education Center also provides information to St. Louis area residents about UMR programs in Rolla. The Center can assist area pre-engineering students with transfer to the Rolla campus and with entry into the Cooperative Training Programs that exist between UMR and numerous U.S. industries. This co-op program allows engineering students to gain valuable industrial experience during their school years and to be partially or totally self-supporting.

Fees

Fees for Engineering Center programs are different from those on the UM-Rolla or UM-St. Louis campus. For information about the Engineering evening program on the UM-St. Louis campus, write to Engineering Education Center, University of Missouri, 8001 Natural Bridge Road, St. Louis, Missouri 63121, or phone (314) 516-5431.

<http://www.umn.edu/~umn.eec>

ROTC

Students interested in Reserve Officer Training Corps (ROTC) programs may enroll in either the Army ROTC program at UM-St. Louis or the Air Force ROTC program sponsored at UM-St. Louis through St. Louis University. These programs provide undergraduate and graduate students with the opportunity to combine academic study with a military officer training program.

For further information concerning the Army ROTC program, contact the Military Science Department at Washington University, telephone 935-5537. For information on the Air Force ROTC program, contact the Aerospace Science Department at St. Louis University, telephone 977-8227

Army ROTC

The purpose of the Military Science Department is to develop young men and women into junior commissioned officers for positions of responsibility in the Army Reserve, Army National Guard, or Active Army.

Benefits

Army ROTC offers UM-St. Louis students:

1) A challenging, important, well-paid job at graduation in one of the many professional fields that the modern Army has to offer. Army officers serve in such fields as intelligence, military police, communications, engineering, transportation management, finance, combat arms, hospital administration, nursing, and research and development. Starting salary with allowances of an active duty Second Lieutenant is approximately \$27,000. Within four years he/she should be promoted to Captain with a salary and allowances of nearly \$48,000. Reserve officers attend one weekend per month and an annual two-week training camp.

2) College financing. All Advance Course and Army ROTC scholarship students receive \$150.00/month stipend. Only scholarship students receive \$450 for books and supplies. Also, Advance Course students may join the Reserves as an office trainee and receive pay while in college.

3) Full time enrolled students may compete for the Army ROTC scholarship. The scholarship pays for tuition, fees, and books.

4) Option of two careers. Upon graduation and commissioning as officers in the U.S. Army, students may fulfill their obligation by serving on active duty or reserve duty. Reserve officers spend one weekend a month being a soldier. Officers who serve on active duty receive 30 days paid vacation every year, free medical and dental care, travel, and the opportunity to pursue advanced degrees with educational assistance from the Army on a fully funded or partially funded basis.

The Program

College students who complete the ROTC program earn commissions as Second Lieutenants in the U.S. Army. The ROTC program may be completed in several different ways as outlined below.

1) Four-Year Program. The Military Science program is traditionally offered as a four-year program. It is best to start as a freshman, but special arrangements can be made for those who start as sophomores. The first two years of Military Science are voluntary without service obligation, and are designed to give the student a perspective of their leadership ability and what the Army can offer them. The student who decides to continue in ROTC and pursue a commission signs an agreement with the Department of the Army to accept a commission upon completion of the last two years of Military Science. In return the Army agrees to provide a subsistence allowance (up to \$3,000) and to provide all necessary uniforms and Military Science books.

2) Two-Year Program. The two-year program is designed to provide greater flexibility in meeting the needs of students desiring commissions in the U.S. Army. UM-St. Louis students who did not participate in the four-year program and junior college transfer students are eligible for enrollment. Basic prerequisites for entering the two-year program are:

A) Students must be in good academic standing (minimum 2.0 GPA) and pass an Army medical examination; and

B) The student must have two academic years of study remaining (undergraduate, graduate, or combination). The student will attend a six-week summer camp to catch up with the students in the four-year program. Attendance at the basic camp does not obligate the student in any way and is only intended to give the student a look at Army life and opportunities. The student will be paid approximately \$750 for attendance at basic camp.

ROTC

Veterans

Veterans of any of the Armed Forces may qualify for advanced placement and should contact the Military Science Department for details.

Scholarships

The Army ROTC currently has scholarships in effect, which pay toward tuition, fees, and books, and provide \$150/month for the academic year. These scholarships cover either four, three, or two years. UM-St. Louis freshmen and sophomores should apply in January for the two and three-year scholarships. Scholarship students may incur a four-year active duty obligation; however, they may request reserve duty to serve with the Army National Guard or Reserve.

Qualifications

All students who desire to enter the Army Reserve Officer Training Corps must be United States citizens, in good physical condition, and have high moral character. Students must be at least 17 years old to enroll and not over 30 when they receive their commission. Additional qualifications to be admitted into the advanced course include an academic average of C or better, and passing an Army medical examination.

Academics

UM-St. Louis Army Reserve Officers' Training Corps academics consists of two parts:

- 1) earning a degree in the student's chosen academic subject, and
- 2) completing 18 credit hours (four-year program) or 12 credit hours (two-year program) of the Military Science curriculum. The courses in Military Science are college-level academic courses which receive full academic credit toward the student's elective degree requirements in the Business School and the School of Education. The curriculum consists of classroom instruction and a leadership laboratory in which students receive leadership experience.

Leadership Laboratory

Leadership Laboratory is required of all students enrolled in Military Science courses. Classes are two hours every Thursday afternoon from 4 p.m. to 6 p.m., unless otherwise designated. In addition, students attend one Field Training Exercise (FTX) each semester. Leadership Laboratory develops individual military skills and leadership ability through participation in drill and ceremonies, survival training, mountaineering, field-training exercises, and exposure to progressively greater responsibilities within the Cadet Corps organization.

Graduate Study

The Army realizes the importance of a graduate degree for its personnel. There are several programs available to assist ROTC graduates in obtaining an advanced degree. The Army sends selected Second Lieutenants immediately to graduate school (with full pay and allowances) to pursue advanced degrees in engineering and the physical sciences. Other officers may postpone active duty for two years to continue graduate study. Students who are accepted into medical school may take up to four years to complete their studies. There are numerous opportunities for an officer to complete a master's degree in service and receive financial assistance from the Army.

Special Training

Selected volunteers may attend one of several special schools during the summer: the Airborne Course at Fort Benning, GA; Air Assault School at Fort Campbell, KY; or the Northern Warfare School in Alaska. Successful course completion earns the coveted badge (such as the jump wings or air assault wings) associated with each school. Special Cadet Troop Leadership Training is available on a limited basis. Students participating in the program live and work with an active Army unit during part of one summer.

Cadet Activities

Army ROTC students may participate in many extra-curricular activities during the year. Social activities include the Army Military Ball, a fall canoe trip down the Meramec River, picnics, and informal parties. Army ROTC students also support various campus and community service activities. Interested students also participate in the Raider Club, Drill Team, Color Guard, and Ranger Challenge Team.

ROTC**Course Descriptions****Military Science****101 Introduction to Military Science (1)**

Provides an overview of the organization and role of the U.S. Army and the Army ROTC. Initiates an appreciation of the military profession and its customs, traditions, and courtesies. Introduces the student to the responsibilities and obligations of an Army officer. Develops leadership and managerial abilities. Provides fundamentals of military history, customs and traditions, and training of the U.S. Army.

102 Introduction to Military Operations (1)

Prerequisite: Military Science 101, equivalent, or consent of Professor of Military Science (PMS). Provides an introduction to theoretical and practical aspects of supervision. Emphasizes the need for proper motivation and cooperative attitudes as they pertain to both individual and group interaction. Continues development of leadership and managerial abilities and provides fundamentals of common military training and tasks that are essential at the tactical level of military operations. Tasks performed as an individual are emphasized.

201 Small Unit Leadership (2)

Prerequisite: Military Science 101, Military Science 102, equivalent, or consent of Professor of Military Science (PMS). Provides basic background in the skills necessary for military map reading and land navigation to include: (1) military grid reference system; and (2) map scale, distance, elevation, and relief. Continues development of leadership and managerial skills. Provides fundamentals of orienteering. Introduces the student to basic communication skills and develops basic awareness on how these skills affect other people.

202 Small Unit Leadership II (2)

Prerequisite: Military Science 201, equivalent, or consent of Professor of Military Science (PMS). Develops principles and techniques of applied leadership through discussion of some of the processes and procedures used by the leader to accomplish organizational objectives to include: (1) decision making; (2) communication; and (3) counseling. Provides practical experience in leadership of small units in the military environment. Examines principles and techniques of small-unit military tactical patrolling operations with emphasis on development of pre-planning and execution concepts. Applies concepts practiced through in-class map exercises and field training practicum. Provides an overview of the Army ROTC advanced course. Continues development of leadership and managerial abilities. Provides fundamentals of marksmanship.

301 Military Leadership and Management I (3)

Prerequisite: Military Science 101 through Military Science 202 or equivalent and selection by Professor of Military Science (PMS). Covers the functional roles of the military leader and basic principles of management with emphasis on problem analysis and decision making, span of control, delegation of authority and responsibility, planning and coordinating. Provides fundamentals of effective methods of instruction and includes practical exercises where each student plans, prepares, and presents part of instruction. Continues to develop the student's ability to communicate orally and in writing. Provides additional insight into areas of Army officer specialization. Stresses practical application in the development of leadership abilities in that students are placed in positions of leadership within the ROTC student structure.

302 Advanced Leadership and Management II (3)

Prerequisite: Military Science 301. Provides a review of basic military land navigation and map-reading techniques. Examines more advanced principles and techniques of small unit military offensive and defensive tactical operations with concentrated study of such factors as command and control, communications, weapons systems, and military geography. Continues emphasis on practical application exercises to develop students' leadership abilities. Solidifies student's preparation for attendance at the ROTC advanced camp during the upcoming summer.

401 Military Administration (3)

Prerequisites: Military Science 301 and Military Science 302. Explores the practical aspects of military law. Examines the organization, responsibilities, and management of the military unit staff. Provides a working knowledge of proper staffing procedures. Continues development of leadership and managerial abilities through placement of students into key leadership positions within the ROTC student organizational structure. Students plan and conduct the majority of leadership practicum for all ROTC students.

402 Seminar in Leadership and Ethics (3)

Prerequisite: Military Science 401. Examines military professional ethics and the ideal American values as a basis for military values. Examines techniques of resource management with particular emphasis on the military environment. Teaches proper application of tactical military doctrine at the company/team level and the planning necessary between elements of the team. Reviews the various roles of the newly commissioned Army officer. Students continue to be assigned positions of leadership within the ROTC student organizational structure.

These courses are taught at St. Louis University, Washington University, or University of Missouri-St. Louis. Students should check the Schedule of Courses each semester for locations.

Air Force ROTC

The objective of the Air Force Reserve Officer Training Corps (AFROTC) is to qualify students for appointment as active duty second lieutenants in the United States Air Force. However, any student may enroll in the freshman/ sophomore-level aerospace studies courses, and students may also enroll in the junior/senior-level courses with permission of the professor of Aerospace Studies.

UM-St. Louis offers the two- and four-year AFROTC programs through an agreement with St. Louis University.

The four-year program is tailored for students with three or more years of undergraduate studies remaining. Student with junior standing or above may apply for entry into the two-year program. Entry into the two-year program is competitive and is based on standardized test scores, academic major, grade-point average, physical examination, personal interview with the professor of Aerospace Studies, and successful completion of a summer field training session at an Air Force base. Applicants must be full-time students and must remain in good academic standing.

Reserve Officer Training Corps

The AFROTC Program is divided into the General Military Course (GMC), the freshman/sophomore level curriculum; and the Professional Officer Course (POC), the junior/ senior level curriculum. The GMC covers two main themes; The Air Force Today and The Air Force Way. The courses of the POC emphasize the professional development of the future Air Force officer. The curriculum covers Air Force Leadership and Management and Preparation for Active Duty. Field trips to Air Force bases supplement classroom instruction and familiarize the cadet with Air Force operations and organization.

To be commissioned, AFROTC students/cadets must:

- 1) Pass a medical exam at a military medical facility.
- 2) Obtain a favorable evaluation on an Armed Forces personal history security investigation.
- 3) Flying applicants must complete commissioning requirements before age 26-1/2, and nonflying applicants must complete commissioning requirements by age 30. However, the age limit for nonflying applicants may be extended to age 35 for outstanding individuals.

4) Be of good character (as determined by a favorable record with law enforcement authorities).

5) Successfully complete all AFROTC course requirements.

6) Complete at least a baccalaureate degree.

Air Force ROTC textbooks are loaned to all AFROTC students without charge. Students in the POC will receive a monthly subsistence allowance of \$150 per month for a maximum of 20 months, an Air Force uniform, in excess of \$700 for the summer field training course, and a travel allowance to and from the training location.

In addition to the AFROTC courses offered for academic credit, the Aerospace Studies Department sponsors the Arnold Air Society and Angel Flight. Arnold Air Society is a national honorary service organization, and membership is open to anyone interested in bringing to the local community a better understanding of the Air Force mission and its leaders.

Field Training AFROTC Field training is offered during the summer months at selected bases throughout the United States, usually between a student's sophomore and junior years. Students in the four-year program participate in four weeks of field training. Major areas of study include junior officer training, aircrew/aircraft orientation, career orientation, survival training, base functions and Air Force environment, and physical training.

Students applying for entry into the two-year program must successfully complete six weeks of Field Training prior to enrollment in the Professional Officer Course. The major areas of study included in the six-week Field Training Program are essentially the same as those conducted at four-week field training, plus the academic curriculum of the General Military Course including Leadership Laboratory. POC cadets are eligible for a \$1000 per semester Federal AFROTC Scholarship.

Leadership Laboratory Leadership Laboratory is taken once per week throughout the student's enrollment in AFROTC. Instruction is conducted within the framework of an organized cadet corps with a progression of experiences designed to develop each student's leadership potential. Leadership Laboratory involves a study of Air Force customs and courtesies, drill and ceremonies, career opportunities in the Air Force, and the life and work of an Air Force junior officer. It also includes field trips to Air Force installations throughout the United States.

Air Force ROTC

Other Training Volunteers may attend various special cadet training programs such as light aircraft training, parachute jump training, and advance cadet training. Students participating in the latter, work with an Air Force unit during part of the summer.

Air Force Scholarships The Air Force offers four-, three-, and two-year scholarships to qualified students. These scholarships pay tuition, certain fees, and textbook cost. Scholarship recipients receive \$150 per month subsistence allowance.

For further information on the Air Force ROTC program at UM-St. Louis, call (314) 977-8227 or at Southern Illinois University at Edwardsville (SIUE), call (618) 692-3180.

Aerospace Studies

The Aerospace Studies program (AFROTC) is divided into two parts; The General Military Course (GMC), the freshman/ sophomore level curriculum, and the Professional Officer Course (POC), the junior/senior level curriculum. The GMC covers two main themes: The Air Force Today and The Air Force Way. The courses of the POC emphasize the professional development of the future Air Force Officer. The curriculum covers Air Force Leadership and Management and Preparation for Active Duty. Field trips to Air Force bases supplement classroom instructions and familiarizes the cadet with Air Force operations and organizations.

Leadership laboratory is taken two hours per week throughout the student's enrollment in the AFROTC. Instruction is conducted within the framework of an organized cadet corps with a progression of experiences designed to develop each student's leadership potential. The first two years of the Leadership Laboratory includes a study of Air Force customs and courtesies, drill and ceremonies, issuing military commands, instructing, directing and evaluating the preceding skills, studying the environment of an Air Force officer and learning about areas of opportunity available to commissioned officers. The last two years of Lab consist of activities classified as advanced leadership experiences. They involve the planning and controlling of military activities of the cadet corps, the preparation and presentation of briefings and other oral and written communications; and the providing of interviews, guidance, and information which will increase the understanding, motivation, and performance of other cadets.

AFROTC cadets must also successfully complete supplemental courses to enhance their utility and performance as commissioned officers. These include university courses in English composition and mathematical reasoning. Specific courses are designated by the Professor of Aerospace Studies.

Field Training (FT): Cadets in the four-year program participate in four weeks of field training. Cadets in the two or three year programs (exception for prior AF service) must attend the six week FT session, which is identical to the four week program plus 90 hours of GMC curriculum. Field training is offered during the summer months at selected bases throughout the United States, usually between a student's sophomore and junior years. Major areas of study include: Air Force Orientation, Officer Training, aircrew/aircraft orientation, survival training, base functions and physical training.

Students applying for entry into the two or three year program must successfully complete six weeks of field training prior to enrollment in the Professional Officer Course. The major areas of study included in the six week Field Training program are essentially the same as those conducted at four-week Field Training, plus the academic curriculum of the General Military Course including Leadership Laboratory. No direct academic credit is awarded for Field Training.

Federal scholarships are available for AFROTC cadets—any academic major may apply. Applications are to be submitted by detachment personnel to Head Quarters Reserve Officers Training Corps (AFROTC), Maxwell Air Force Base, AL.

Participation in AFROTC is not required to take Aerospace courses.

Lower Division (General Military)

Aerospace Studies courses (AS-101 through AS-202) are basic courses designed to acquaint students with the United States Air Force and the opportunities available as an officer. Grades earned in these courses will be computed in the student's overall grade point average, but credit hours for these courses will not be included in the total hours for graduation.

Air Force ROTC

AS-101/102 The Air Force Today (2)

A survey course designed to introduce students to the United States Air Force and Air Force Reserve Officer Training Corps. Featured topics include: mission and organization of the Air Force, officership and professionalism, military customs and courtesies, Air Force officer opportunities, group leadership problems, and an introduction to communication skills. Leadership Laboratory is mandatory for AFROTC cadets, and it complements this course by providing students with followership experiences. Classroom activity, two hours per week; Leadership Laboratory two hours per week, each semester.

AS-201/202 The Air Force Way (2)

Survey course designed to facilitate the transition from Air Force ROTC cadet to Air Force ROTC candidate. Featured topics include: Air Force heritage, Air Force leaders, Quality Air Force, an introduction to ethics and values, introduction to leadership, group leadership problems, and continuing application of communication skills. Leadership Laboratory is mandatory for Air Force ROTC cadets, and it complements this course by providing cadets with their first opportunity for applied leadership experiences discussed in class. Classroom activity, two hours per week; Leadership Laboratory two hours per week, each semester.

Upper Division(Professional Officer) Courses

Aerospace Studies courses AS-301 through AS-402 are advanced courses designed to improve communication and management skills required of Air Force officers. Credit hours of these courses may be included in the hours needed for graduation at the discretion of individual departmental chairpersons.

AS-301/302 Air Force Leadership and Management (3)

The study of leadership and quality management fundamentals, professional knowledge, Air Force doctrine, leadership ethics, and communication skills required of an Air Force junior officer. Case studies are used to examine Air Force leadership and management situations as a means of demonstrating and exercising practical application of the concepts being studied. A mandatory leadership laboratory complements this course by providing advanced leadership experiences in officer type activities, giving students the opportunity to apply leadership and management principles of this course. Classroom activity, three hours per week; Leadership Laboratory two hours per week, each semester.

AS-401/402 Preparation For Active Duty (3)

Examines the national security process, regional studies, advanced leadership ethics, Air Force doctrine. Special topics of interest focus on the military as a profession, officership, military justice, civilian control of the military, preparation for active duty, and current issues affecting military professionalism. Within this structure, continued emphasis is given to refining communication skills. An additional Leadership Laboratory complements this course by providing advanced leadership experiences, giving students the opportunity to apply leadership and management principles of this course. Classroom activity, three hours per week; Leadership Laboratory two hours per week, each semester.

Field Training

Field Training provides leadership and officership training in a military environment, which demands conformity to high physical and moral standards. Within this structured environment, cadets are screened for officer potential as measured against field training standards. Motivation and professional development is achieved through various programs such as flight orientation, marksmanship, and survival training. Students in the four-year program participate in four weeks of field training. Field training is offered during the summer months at selected bases throughout the United States, usually between a student's sophomore and junior years. Major areas of study include: Air Force Orientation, Officer Training, aircrew/aircraft orientation, survival training, base functions and physical training.

Programs at Other Universities

Reciprocal Programs

Unless otherwise stated, students interested in one of the following programs should contact the admissions office at the school where the program is offered.

Nebraska

The University of Nebraska in Lincoln offers programs for a limited number of Missouri residents in architecture, community and regional planning, construction management, and actuarial science where students may pursue bachelor's degrees.

Illinois

A cooperative agreement exists between Southern Illinois University-Edwardsville and UM-St. Louis which permits students of one institution to take courses at the other institution as a regular part of their academic program. For further information consult the registrar's office or the dean's office.

Kansas

The following programs are offered to Missouri residents at various Kansas universities:

Humanities University of Kansas, Lawrence, with an M.A. in Oriental languages and literature, and a B.A. and M.A. in Slavic languages and literature (not Russian). A Ph.D. in Slavic languages and literature is also offered.

Grain milling and technology Kansas State University, Manhattan, with a B.S., M.S., or Ph.D. in bakery science and management, feed science and management, or milling science and management.

Horticulture Kansas State University, Manhattan, with a B.S. in horticulture therapy.

Joint Programs in Law and Dentistry

The University of Missouri-St. Louis and the University of Missouri-Kansas City provide joint programs in law and dentistry for academically able students who are committed to public service. These special programs are designed to serve students seeking a career in public-service law or students who wish to practice dentistry in medically underserved communities.

UM-Kansas City will hold a reserved seat in its School of Law or in the School of Dentistry for qualified UM-St. Louis entering freshmen and make it available to them after they complete the required undergraduate studies at UM-St. Louis.

Study Abroad Programs

The University of Missouri-St. Louis is committed to broadening students' understanding of different cultures and preparing them for the global community in which we live. One of the most successful ways of achieving this "global mindset" is to study at an overseas location for a year, semester or summer. Spending time abroad as a student is an enriching experience both academically and personally, providing students with the opportunity to study within a different culture, and to grow individually through the challenges and adventures of life in another country.

The Center for International Studies provides UM-St. Louis students with opportunities to study at over 60 different universities in more than 25 countries around the globe. Through individual advising at the Center's Study Abroad Office, students can find the program best suited to their personal, academic and career goals. Internship possibilities are also available for qualified students. The Study Abroad Office is a resource library where students can research the thousands of different programs available to them through UM-St. Louis and other institutions.

Fees and Financial Aid

The cost of the program depends on the services provided and the country and city of study. For most programs, participants continue to pay UM-St. Louis fees plus airfare, room & board and spending money. Few programs require an additional fee. Students are usually housed in dormitories or are assisted in finding apartments. In most cases, students are able to apply financial aid to a Study Abroad program. Study Abroad Scholarships are available for qualified applicants through the Center for International Studies.

Application

Generally, applications are due early in the semester prior to participation. Some programs require application two semesters prior to participation. Students should plan to spend at least 1-2 months researching a program before applying.

Participants are chosen based on academic achievement, faculty recommendations, approval of the proposed course of study via the department/divisional advisory process, and familiarity with or willingness to learn the foreign language of instruction. Most programs are designed for undergraduate students in their junior or senior years of study; however, a limited number of programs for freshmen, sophomores and graduate students are available.

For further information contact the Study Abroad Office, Center for International Studies, 304 SSB, 516-6497.

Programs at Other Universities

Study Abroad Programs and Exchange Partners

Australia

University of Southern Queensland

Austria

Karl-Franzens-University Graz

Belgium

University of Antwerp

Canada

Carleton University

McMaster University

Technical University of Nova Scotia

Universite Laval

Universite de Montreal

University of Waterloo

York University

Saint Mary's University

Simon Fraser University

Universite du Quebec a Montreal

University of Manitoba

University of Ottawa

Czech Republic

Masaryk University

Denmark

Aarhus University

Finland

University of Helsinki

France

University Jean Moulin, Lyon (3)

Ecole Superieure de Commerce de Saint Etienne

University of Sciences and Technologies de Lille

University Louis Pasteur, Strasbourg (1)

University of Human Sciences, Strasbourg (2)

University Robert Schuman, Strasbourg (3)

University Catholique de l'Ouest, Angers

Ecole Superieure des Sciences Commerciales d'Angers

Germany

University of Stuttgart

Ruhr University Bochum

University of Leipzig

Fachhochschule Jena

Hochschule Bremen

University of Bonn

Ghana

University of Ghana

Greece

Aristotle University of Thessaloniki

Hungary

Kossuth Lajos University

Iceland

University of Iceland

Ireland

National University of Ireland, Cork

National University of Ireland, Galway

Italy

University of Bologna

University of Parma

Japan

Obirin University

Semester in Nakajo Program

Toyo University

Malta

University of Malta

Mexico

El Colegio de Jalisco

Universidad de Guadalajara

ITESM-Guaymas Campus

Universidad Autonoma de Baja California

Universidad Nacional Autonoma de Mexico

Unviersidad of San Luis Potosi

Instituto del Estudios Superiores de Tamaulipas

Instituto Tecnologico Autonomo de Mexico (ITAM)

Instituto Tec. y de Est. Sup. de Monterrey (ITESM)

Universidad Autonoma de Guadalajara

Universidad Autonoma de Queretaro

Universidad de las Americas Puebla

Universidad Iberoamericana

Universidad La Salle

University of Guanajuato

Universidad Autonoma de Nuevo Leon

The Netherlands

Hogeschool Holland Business School

Hogeschool voor de Kunsten

University of Utrecht

Northern Ireland

University of Ulster, Magee College

Norway

University of Bergen

Portugal

University of Coimbra

Slovenia

University of Ljubljana

South Africa

University of the Western Cape

Spain

Universidad Autonoma de Madrid

Unviersidad Complutense de Madrid

Sweden

Lund University

Programs at Other Universities

Switzerland

University of Basel

Taiwan

Yuan-Ze University

United Kingdom

University of East Anglia

University of Lancaster

Missouri London Program

Business Internship in London Program

Video Instructional Program

The Video Instructional Program offers flexible, self-paced learning for students who are far from campus or whose schedules make it difficult to attend regular classes. Video lessons for various courses are available for viewing over cable television stations. Tapes are available in UM-St. Louis libraries.

St. Louis Area Cable Stations

Crown Media I, II, and III (formerly Cencom I, II, and III), Continental Cable, American, and United Video in St. Louis County; STL Cable and City Cable in the city will air courses over the Higher Education Channel (HEC).

Course Listings

The following courses from the UM-St. Louis curriculum are offered:

Anthropology

019 Archaeology

This telecourse uses dramatic onsite filming to enable students to explore how archaeologists reconstruct ancient societies and explain how they evolved. Students will understand how archaeology and anthropology interact, with emphasis on how people have behaved in the past.

025 World Cultures

This telecourse is an ethnographic survey of the major culture areas of the world. It is an introductory cultural anthropology course that studies the structure and process of culture. This course satisfies the Cultural Diversity requirement.

124 Cultures of Africa

This telecourse offers a basic ethnographic survey of African cultures, with attention to social groupings, tribalism, religion, language, social change, the ecological relationship between humans and nature. This course satisfies the Cultural Diversity requirement.

350 Special Studies

This telecourse offers a glimpse into the science of anthropology through a variety of approaches, theories, controversies, and solutions encountered in the field. Students will gain insight into the practices of foreign cultures and the beliefs of their own culture in addition to the importance of diversity of human behavior.

Biology

001 General Biology (For Non-Science Majors)

This telecourse provides a firm foundation in the fundamental principles of biology.

120 Environmental Biology (3)

This telecourse provides a survey of the current outlook for the global environment, describing threats that different natural systems face and the ties that bind human society to the environment. It also provides an examination of the biological basis of current environmental problems, with emphasis upon resources, energy, pollution and conservation.

Communication

070 Introduction to Cinema

This telecourse examines the history, rhetoric, and aesthetics of film. The content is designed to bring Hollywood filmmaking into clear focus as an art form, as an economic force, and as a system of representation and communication. Film theory and criticism will be studied, as well as major genres, authors, and artists. Introduction to Cinema explores how Hollywood films work technically, artistically, and culturally. The course also probes the deeper meaning of American movies—the hidden messages of genres, the social and psychological effects of Hollywood film style, and the mutual influence of society and popular culture on filmmaking.

Education

308 Foundations of Adult Basic Education (3)

This telecourse discusses the various characteristics of the adult learner, including needs, interests, physiological factors, interpersonal relations, and communications. The video demonstrations present teaching practices in adult basic education. This course focuses on the need of corporate and industry trainers as well as ABE and GED teachers.

You will work with topics in teaching basic reading: word recognition, comprehension, writing for the student's needs, basic and intermediate mathematical skills, selection and use of materials, learning contracts, learning styles, and other methods to individualize instruction, as well as student recruitment and retention and corporate classroom management. This is an important class offered at a time when there are more adult students than teachers.

Video Instructional Program

341 Teaching Science in the Elementary School

Prerequisites: Completion of science requirements in general education, Educational Foundations 111, and consent of instructor.

This course demonstrates methods, materials, and strategies for teaching science in the elementary classroom. Science is presented as a dynamic process. Piaget's work on the cognitive growth of learners is discussed and related to the need to teach science as a "hands-on" subject. In addition to a review of the psychological and philosophical bases for teaching questioning techniques are explored.

History

031 Topics in European Civilization: Emergence of Western Europe to 1715

This telecourse offers lectures and discussions on the development of Western European society and tradition from approximately 800 to 1715.

032 Topics in European Civilization: 1715 to the Present

This telecourse offers lectures and discussions on the development of Western European society and tradition from 1715 to the present.

History 31 or History 32 may be taken separately.

Philosophy

210 Significant Figures in Philosophy

This course offers a survey of the development of philosophy in Western civilization through a study of seven major thinkers: Plato, Aristotle, Aquinas, Descartes, Locke, Kant and Nietzsche. Each author is considered not only a product of his own time and culture, but also the creator of ideas of enduring relevance.

Topics include Plato's theory of forms and his delineation of an ideal state, Aristotle's formation of an all-embracing scientific and metaphysical view, Aquinas' adaptation of Aristotle to a Christian framework, Descartes' inauguration of a new approach to philosophy, Locke's attempt to base all our ideas in experience, Kant's attempt to redeem philosophy from the extremes of dogmatism and skepticism, and Nietzsche's radical rejection of the values that had prevailed until his time.

290 Philosophical Issues in Other Disciplines: Humanities in the Arts

This telecourse examines selected philosophical issues in film, drama, music, literature, painting, sculpture, and architecture. The historical development of each of these art forms is presented, and then excerpts and examples are provided together with analysis and interpretation. For each art form, there is a program on critical evaluation in which the series host and established artists and critics apply their particular areas of expertise. The series also includes an introduction that explains the approach taken by the academic designers, and an epilogue that retrospectively examines the knowledge acquired.

Psychology

003 General Psychology

This telecourse is an introductory college level course that covers the fundamental principles and major concepts of psychology. The content is designed to provide a broad introductory survey of the general principles of human behavior.

245 Abnormal Psychology

Prerequisite: Psych 03, General Psychology. This telecourse introduces the major theoretical models for explaining and treating disorders—psychodynamic, behavioral, cognitive and biological. Ten of the 13 programs feature specific disorders, including anxiety disorders, personality disorders, the schizophrenias, sexual disorders, substance abuse, and the disorders of childhood. The first program concerns assessment, while the last two provide information on treatment and prevention. This approach serves the introductory abnormal psychology student, while allowing individual faculty latitude to underscore the approach to which they subscribe.

Social Work

312 Women's Social Issues

Prerequisites: Social Work 280 or consent of the instructor. This telecourse is designed to help students identify gender stereotypes and barriers and how they impact on women's lives. This course will help students become more sensitive to the social and welfare concerns of women. The course also explores how gender intersects with other social systems, such as age, class, disability, ethnicity, race, religion, and sexual orientation. Emphasis will be placed on integrating a knowledge base of women's needs with professional social work practice.

Video Instructional Program

Sociology

010 Introduction to Sociology

This telecourse is an introductory college level course designed to give students an in-depth look at sociological approaches to human behavior, including types of social organizations, patterns of social interaction, and social influences on individual conduct.

CBHE Articulation Agreement

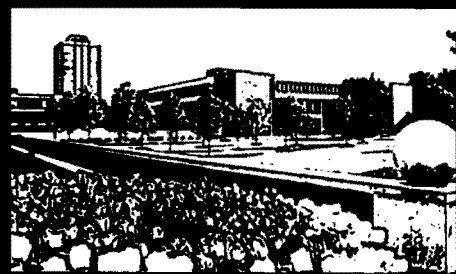
The Coordinating Board of Higher Education Articulation Agreement outlines statewide undergraduate general education requirements which satisfy the general requirements for students transferring into UM-St. Louis and students transferring out of UM-St. Louis to other public higher education universities in the state.

- 1) Communication skills in the English language, three (3) courses—at least two (2) of which must be written; one (1) oral communication course is recommended;**
- 2) Humanities, three (3) courses from at least two (2) disciplines;**
- 3) Physical and/or biological sciences, two (2) courses including at least one (1) with its associated laboratory component;**
- 4) Mathematics, one (1) course—college algebra, an alternative course that includes a significant component of college algebra, or a course which has college algebra as a prerequisite; and**
- 5) Social and behavioral sciences, three (3) courses from at least two (2) disciplines.**

All institutions shall recognize the validity of other institutions' general education requirements when the minimum requirements as specified above are met. However, some foreign language and/or upper division general education courses or upper division graduation requirements may be required by the receiving institution whenever all native students are obligated to satisfy the same requirements.

Baccalaureate professional schools or programs may specify exceptions to the credit hour and course distribution minimums established in this section by promulgating these exceptions and by establishing specialized articulation programs related to associate of science degrees as detailed in that section of these transfer guidelines. In these instances, transferring students are not exempted from satisfying the specialized lower division requirements of departments or divisions of an institution into which a student wishes to transfer.

appendix



Appendix

Contents

Code of Student Conduct
 Student Disciplinary Matters
 Appeals Procedures
 Policy on Student Organizations
 University of Missouri Plan for Equal Opportunity and
 Affirmative Action
 Other Procedures or Regulations
 Index

Code of Student Conduct

200.010 Standard of Conduct Amended March 20, 1981; August 3, 1990; May 19, 1994

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 regulation 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 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.

Code of Student Conduct

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

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 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, "Primary Administrative Officer" is charged with the responsibility for the administration of these student conduct procedures and refers to the person or persons on each campus designated.
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

Student Disciplinary Matters

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.

E. POLICY AND PROCEDURES.

1. Primary Administrative Officers. The Chief Student Affairs Administrator on each campus or designee is the primary officer except in cases of academic dishonesty, where the Chief Academic Administrator responsible for administering the Student Conduct Code or designee is the primary administrative officer.

2. Preliminary Procedures. The Primary Administrative Officer 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 may discuss with any student such alleged misconduct and the student shall attend such consultation as requested by the Primary Administrative Officer. The Primary Administrative Officer, in making an investigation and disposition, may utilize student courts and boards and/or divisional deans to make recommendations.

3. Informal Dispositions. The Primary Administrative Officer shall have the authority 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 shall be deemed to be an acceptance and, 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 may refer cases to the Committee without first offering informal disposition.

4. 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.

c. Notice. The Primary Administrative Officer 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 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.

Student Disciplinary Matters

5 Right to Petition for Review (other than University expulsion, University dismissal or University suspension).

a. In all cases where the sanction imposed by the Committee is other than University expulsion, University dismissal, or University suspension, the Primary Administrative Officer 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.

b. 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.

6. Right of Appeal (University expulsion, University dismissal or University suspension only).

a. When a student is expelled, dismissed or suspended from the University by the Committee, the Primary Administrative Officer 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 or by the Primary Administrative Officer 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.

b. 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.

7. Status During Appeal. 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.

8. 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 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. Procedures shall satisfy the requirements of the Board of Curators' Bylaws, 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 200.020 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 advisor 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.

a. Opening Statements

1) The Primary Administrative Officer 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) 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.

Student Disciplinary Matters

3) The Committee may question the student or witnesses at any time. The Primary Administrative Officer 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 and the student involved;

3) Permit the incorporation in the record by a 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 about dispositions made in similar cases and any dispositions offered to the student appearing before the Committee;

6) Call additional witnesses or 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 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 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 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.

Student Disciplinary Matters

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 and for the purpose of review or appeal be accessible at reasonable times and places to both the University and the student.

8. Sexual Assault. In cases of alleged sexual assault:

- a. The accuser and the accused are entitled to the same opportunities to have others present during a campus disciplinary proceeding;
- b. The accuser and the accused shall be informed of the outcome of any campus disciplinary proceeding brought alleging a sexual assault.

Financial Aid Appeals

The University of Missouri-St. Louis has an established financial aid appeals procedure. An aid applicant can raise questions or appeal the offer, or lack of an offer, of financial aid if not satisfied. The general provisions for appeals procedures are as follows:

- 1) An aid applicant who is not satisfied with the fact that no aid was offered, or was not pleased with the type and/or amount of aid that was offered, may make a written appeal to the Student Financial Aid Appeals Committee for reconsideration of the aid request and/or ask for a personal hearing.
- 2) If on review of all the facts of the case, including any new information which the applicant may provide, the Committee can (a) approve an exception to University policy; (b) deny the request; © approve a modified version of the request.

3) If the Appeals Committee cannot provide a satisfactory solution, he/she may refer the written appeal with all pertinent information to the Director of Financial Aid. Where academic progress is an issue, the student may ask an academic adviser or counselor to write or speak in the student's behalf. If a satisfactory solution is worked out, the case is closed.

4) If step three did not solve the problem, it is referred to the campus Faculty-Senate Committee on Student Aid. In ordinary practice it is rare for a case to be appealed beyond this step.

5) If, however, the applicant is still not satisfied after review by committee, the case is to be referred to the Chancellor.

6) The next appeal is the President.

7) The final University appeal would be for the President to refer a case to the Board of Curators.

Grievance About Grade

Recourse for a Student Who Has a Grievance About a Given Grade

The following grievance procedure is to be followed by any student who believes he/she has received an unjustified grade in a course and wants a review of the matter. It is to be understood that the establishment of criteria for grades is the responsibility of the instructor. The purpose of this grievance procedure is to determine whether the criteria for grading were fairly applied. If these procedures lead to the conclusion that the grading criteria were improperly applied, then the instructor is to be requested to reconsider the grade.

1) The student's first recourse is to review the issue fully with the instructor involved and then with the department chairperson. This must be done within, at most, one month after the beginning of the succeeding regular academic semester.

Grievance About Grade

2) If the issue has not been resolved within, at most, two weeks, the student should bring the matter to the dean of the College or School for adjudication by whatever appeals committee the dean's office has established. It is anticipated that nearly all cases would be settled at the department or College or School level.

3) A student may take his/her case to the Chancellor.

Note: If a student believe the grade is a result of discrimination, see the Discrimination Grievance Procedure for Students.

Student Organization Policy

Policy on Student Organizations

The University recognizes that the acquisition of knowledge is not confined to the formality of the classroom and that much can be gained through the activities of student organizations. To assure maximum freedom for students and to assure that organizational activities are orderly, responsible, and appropriate to the mission of the University, certain principles and procedures are established through which organizations gain University recognition.

I Procedures for Recognition

A. To obtain recognition or to register, an organization shall submit to the Vice Chancellor for Student Affairs, through the Office of Student Activities, a recognition or registration form which shall include:

- 1) The name of the organization.
- 2) A statement of the general purpose of the organization and the means for accomplishing it. The statement should demonstrate that the organization's purpose is to broaden the scope of general learning, extend knowledge of specialized areas, or to serve the professional, cultural, social or recreational interests of the University community, consistent with the educational goals of the University. The statement must not conflict with policies governing recognized organizations as listed below.
- 3) The names of at least three officers or responsible representatives, including student numbers, addresses and telephone numbers; these persons must be students registered at the University of Missouri-St. Louis.
- 4) A statement of any affiliation with any other organization not registered with the University, and a copy of the organization's constitution.
- 5) Organizations seeking recognition must include a copy of their constitution and/or by-laws, the name of a UM-St. Louis faculty or staff member who agrees to serve as an advisor, and the name of a student member of the organization who will serve as the organization's representative on the Student

Government Association.

6) Upon submission of the recognition or registration form, the organization shall be granted temporary privileges until the request for recognition is acted upon by the Senate Student Affairs Committee or the request to register is approved by the Director of Student Activities or his/her designee.

B. To maintain recognition or registration, an organization must update their recognition form or re-register with the Office of Student Activities no later than two weeks following the beginning of the fall semester.

II Privileges of Recognized Organizations

- 1) Use of campus facilities and services for organizational activities as provided in the University regulations.
- 2) Use of the University name in connection with publicity, but only for identification purposes, and in no way to imply support of the University for any position of the organization.
- 3) Participation in University-sponsored events.
- 4) Application for supplemental financial assistance.
- 5) Participation as a voting member of Student Government Association. Organizations who register may not apply for supplemental assistance and may not be voting members of Student Government Association.

III Policies Governing Recognized or Registered Organizations

- 1) Organizations shall comply with the Rules and Regulations of the University of Missouri and the St. Louis campus.
- 2) Organizations' membership policy shall not discriminate for reasons of color, creed, national origin or sex. Any organization may petition to the Vice Chancellor for Student Affairs for exemption from the requirement as it applies to sex. Academic and professional organizations which have discriminatory membership policy based on sex shall not be recognized.
- 3) Organizations' membership shall not be subject to approval by anyone other than the local campus membership.
- 4) Organizations are expected to maintain fiscal responsibility.
- 5) Registered organizations are encouraged to seek the advice of faculty and other members of the University community.
- 6) Recognized organizations are required to seek the advice of faculty and other members of the community.

Student Organization Policy

7) Recognized organizations are required to participate in the Student Governance process.

IV Procedure for Review of Grievances

A. Any member of the University community may bring charges against a recognized organization for breach of the above policies or procedures.

B. Such charges, except those pertaining to discrimination, are brought initially to the Vice Chancellor for Student Affairs, who may:

1) Dismiss the charges, in which case an appeal may be made to the Senate Student Affairs Committee.

2) Settle the charges in a way acceptable to both parties or,

3) Refer the charges to the Senate Student Affairs Committee.

C. Penalties may range from withdrawals of one or more privileges to withdrawal of recognition or registration. Assessment of penalties shall also provide for the conditions leading to reinstatement of such privileges for recognition.

D. Either party to the charges may appeal the decision of the Senate Student Affairs Committee to the Chancellor.

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 University of Missouri-St. Louis is an affirmative action/equal opportunity employer committed to excellence through diversity.

Therefore, the University enthusiastically complies with and vigorously enforces each Federal and State Executive Order, law and regulation, University of Missouri Rules and Regulations and University of Missouri-St. Louis directive that prohibits discrimination against employees, students, and others based upon age, ancestry, color disability, national origin, race, religion, sex, or veteran status.

The above compliance is established upon, but not limited to, the following employment and education related equal opportunity laws:

Civil Rights Act of 1964, Title VII, as amended
Executive Order 11246, Equal Employment Opportunity Equal Pay Act of 1963, as amended
Age Discrimination in Employment of 1967, as amended
Vietnam Era Veterans Readjustment Assistance Act of 1974, as amended
Executive Order 11141, Age Discrimination Rehabilitation Act of 1973, Section 503, as amended
Rehabilitation Act of 1973, Section 504, as amended
Civil Rights Act of 1964, Title VI, as amended
Education Amendments of 1972, Title IX
Americans with Disabilities Act of 1990

Based upon the foregoing documents, the Board of Curators of the University of Missouri has adopted the appropriate equal opportunity policies and procedures. The Chancellor is responsible for the implementation of equal opportunity at UM-St. Louis. Assisting the Chancellor and each Vice Chancellor is the Office of Equal Opportunity (OEO). All equal opportunity functions for the campus are centralized in the OEO.

Equal Opportunity Policies of the University of Missouri-St. Louis

The following University policies govern the Office of Equal Opportunity (OEO):
 Equal Employment/Educational Opportunity Policy—The Curators of the University of Missouri do hereby reaffirm and state the policy of the University of Missouri on Equal Employment/Educational Opportunity, Sexual Harassment.

Equal opportunity is and shall be provided for all employees and applicants for employment on the basis of their demonstrated ability and competence without discrimination on the basis of their race, color, religion, sex, national origin, age, disability, or status as a Vietnam era veteran.

Equal opportunity is and shall be also provided for all students and applicants for admission in compliance with existing legislation.

University of Missouri Equal Opportunity Statement

The University of Missouri-St. Louis is committed to equal employment and educational opportunities without regard to conditions of race, color, sex, religion, national origin, age, physical ability, veteran status, or individuals with HIV, AIDS, or ARC.

Each administrative unit of the University employing personnel, admitting students, or entering into contracts is charged with implementation of the University's commitments, and maintenance of records to demonstrate good faith efforts, in admission and training, recruiting and hiring, compensating and promoting, layoff and dismissal, granting of tenure, contracting and purchasing, and access to facilities and programs.

As an employer of persons and as an institution accountable to taxpayers and the general public, the University must have administrative and management practices that are designed for the best use of talent for operational effectiveness and efficiency.

(1) Recruitment and employment of personnel

a. Recruitment of professors and academic personnel in research and continuing education/extension is primarily the responsibility of deans, directors, chairpersons, and department heads.

b. Recruitment of administrative, service, and support staff, except for top-ranking administrative personnel, is primarily the responsibility of the personnel office of each campus, and the director of Human Resources for the University of Missouri-St. Louis administration. Selection is the responsibility of the administrative head of the employing unit.

c. Administrative efforts are made to recruit and employ minorities, women, the handicapped, and members of

protected age groups.

d. The University maintains relationships with governmental agencies, community groups, and other organizations which may be of assistance in furthering recruitment and employment of minority groups, handicapped persons, and women into departments and units which have imbalances. Personnel sources are advised of the University's commitment to equal opportunity and affirmative action.

e. Imbalances exist when available talent among specified minorities, women, handicapped, or protected age group members is proportionately underrepresented in a particular personnel category in the University. Underrepresentation is determined by an analysis of the appropriate employment market which is generally national or regional for major administrators, professors, and academic personnel in research and continuing education/extension. The appropriate employment market is generally the state or local community for most administrative positions and for service and support staff.

f. Advertisement and notices of employment opportunities indicate a filing date for consideration.

g. Notice of employment and training opportunities are made to existing personnel.

h. Employment applications meet federal and state requirements relating to equal opportunity.

i. The Office of Equal Opportunity maintains records to demonstrate efforts and results of efforts to achieve equity and to act affirmatively and reasonably to correct imbalances.

(2) Salaries, wages, and benefits

a. University compensation and benefit programs are administered without regard to conditions of race, color, sex, religion, national origin, age, physical ability, or veteran status.

b. The salary range for academic positions is determined in advance of recruitment on the basis of prevailing national levels and departmental scales for the educational attainment, experience, and specialty desired.

(3) Facilities, activities, and working conditions

a. University facilities are maintained on an equitable and nondiscriminatory basis.

b. Physical facilities have been adapted within the limits of the financial resources available to insure access to the University by the physically handicapped.

c. Opportunities for involvement in University activities are provided on an equitable or nondiscriminatory basis.

Equal Opportunity Policies of the University of Missouri-St. Louis

(4) Promotion and training

a. Promotions, contract renewals, the granting of tenure, and reductions in force of academic personnel are handled in accordance with established University procedures and qualification criteria for all persons and free of discrimination.

b. University policy requires that promotions, demotions, layoffs, recalls from layoffs, transfers, and temporary hires for service and support personnel are determined without regard to conditions of race, color, sex, religion, national origin, age, physical ability, or veteran status.

c. Participation in training and educational programs sponsored by the University, including apprenticeships, is open to all employees within eligible job classifications.

d. The University offers developmental programs for professional and personal growth to enhance promotion potential.

(5) Student admission and retention

a. The University gives students equal access to its academic programs without regard to conditions of race, color, sex, religion, national origin, age, or physical ability. Furthermore, the University seeks to recruit, enroll, retain, and graduate minority group members and women in those fields in which they are underrepresented.

b. The University of Missouri has a unique responsibility for graduate and professional public higher education in the state of Missouri. Therefore, academic departments offering doctoral and/or advanced professional programs in disciplines and professions in which there is a deficiency of minorities and women have adopted methods to encourage enrollment, retention, and graduation of minority group members and women.

c. Affirmative action is taken to offer graduate teaching and research assistantships to minorities and women.

d. Business, government, industry, and labor are solicited to assist and provide support to minorities and women through financial aid and by providing work experiences as they pursue academic objectives.

e. Personnel representatives of prospective employers using University services and facilities to interview and recruit students must be equal opportunity employers, and must give all qualified students equal opportunity for interviews, without regard to conditions of race, color, sex, religion, national origin, age, disability, or veteran status.

(6) Appeal and grievance procedures

a. Grievance procedures are available for the processing of complaints and grievances of alleged discrimination based on conditions of race, color, sex, religion, national origin, age, physical ability, or veteran status.

b. A student grievant has access to the student grievance procedures through the Office of Student Affairs, the school or college, the campus, and central administration.

c. The Office of Equal Opportunity currently provides advice and information to grievants on the grievance procedures.

(7) Records and reports

a. The administrative head of each University unit must be prepared to demonstrate that equal opportunity is practiced and that affirmative action is taken in recruiting and employment of full-time and part-time personnel, admission and retention of students, provision of facilities and programs, and purchasing and contracting.

b. Each responsible administrative unit of the University must be prepared to show that procedures followed and selections made are in compliance with policies on equal employment and affirmative action. Admissions applications are retained for one year and employment applications are retained for one year. University business involving contracts and bids for various services are retained in compliance with University of Missouri record management policies.

c. Those responsible for recruiting, admitting, and retaining students—undergraduate, graduate and professional—maintain files and records documenting efforts to provide equal opportunity and act affirmatively to attract and retain minority group members, women, and older and handicapped persons. A report is made annually to the appropriate administrative committee.

d. Campus administrative officers have records demonstrating efforts to provide equal opportunity and show affirmative action in the interests of minority group members, women, and handicapped and older persons in the availability and use of University facilities, including recreational facilities.

e. Those responsible for personnel recruitment and employment personnel, including graduate teaching and research assistants, have records that reflect their adherence to equal opportunity and affirmative action practices.

f. Academic or administrative units receiving complaints or grievances based on allegations of discrimination report those cases to the Office of Equal Opportunity.

Equal Opportunity Policies of the University of Missouri-St. Louis

(8) Reviewing and monitoring

- a. A University Committee on Equal Employment Opportunity and Affirmative Action (EEO/AA) is appointed annually by the Chancellor.
- b. EEO/AA committee membership includes a reasonable cross section of personnel, including a representation of women, minorities, and the handicapped.
- c. The EEO/AA committee advises the Director of Equal Opportunity on matters relating to affirmative action and University equal employment policy.
- d. Administrative officers (chancellor, vice chancellors, deans, directors, department chairpersons, and all other supervisory personnel) are responsible for implementation of equal opportunity and affirmative action policies and practices within their areas of jurisdiction, and the effectiveness of implementation will be an element in the evaluation of the performance of each officer.

(9) Dissemination

- a. Equal opportunity and affirmative action policies and programs are disseminated throughout the University and discussed at appropriate school, college, departmental, management, and supervisory meetings. The subjects covered include attraction, admission, and retention of students; recruitment, employment, training, promotion, and transfer of employees.
- b. University employees, faculty, staff, and students are kept informed of equal opportunity programs and affirmative action goals through campus publications and communications, the Personnel Policy Manual, the Faculty Handbook, divisional and departmental meetings, staff orientation programs, and posters.
- c. Copies of the Equal Employment and Affirmative Action policies are available to a cross section of community organizations, news media, area colleges, secondary schools and recruiting sources.
- d. Copies of the Affirmative Action Policy will be made available on request to employees, applicable governmental agencies, and contractors or subcontractors.
- e. University invitations to bid, purchase orders, and specifications to architects and engineers contain the University's equal opportunity policy.
- f. University correspondence, employment notices and advertising, academic information, and other public notices contain the University's equal opportunity phrase.

Sexual Harassment

This University of Missouri policy aims for an increased awareness regarding sexual harassment by making available information, education and guidance on the subject for the University community.

A. Policy Statement—It is the policy of the University of Missouri, in accord with providing a positive discrimination-free environment, that sexual harassment in the work place or the educational environment is unacceptable conduct. Sexual harassment is subject to discipline, up to and including separation from the institution.

B. Definition—Sexual harassment is defined for this policy as either:

- (i) unwelcome sexual advances or requests for sexual activity by a University employee in a position of power or authority to a University employee or a member of the student body, or
- (ii) other unwelcome verbal or physical conduct of a sexual nature by a University employee or a member of the student body to a University employee or a member of the student body, when:

- 1. Submission to or rejection of such conduct is used explicitly or implicitly as a condition for academic or employment decisions; or
- 2. The purpose or effect of such conduct is to interfere unreasonably with the work or academic performance of the person being harassed; or
- 3. The purpose or effect of such conduct to a reasonable person is, to create an intimidating, hostile, or offensive environment.

C. Non-Retaliation—This policy also prohibits retaliation against any person who brings an accusation of discrimination or sexual harassment or who assists with the investigation or resolution of sexual harassment. Notwithstanding this provision, the University may discipline an employee or student who has been determined to have brought an accusation of sexual harassment in bad faith.

D. Redress Procedures—Members of the University community who believe they have been sexually harassed may seek redress, using the following options:

- 1. Pursue appropriate informal resolution procedures as defined by the individual campuses. These procedures are available from the campus Affirmative Action/Equal Opportunity Officer.

Equal Opportunity Policies of the University of Missouri-St. Louis

2. Initiate a complaint or grievance within the period of time prescribed by the applicable grievance procedure. Faculty are referred to Section 370.010, "Academic Grievance Procedures"; staff to Section 380.010, "Grievance Procedure for Administrative, Service and Support Staff" and students to Section 390.010, "Discrimination Grievance Procedure for Students".

Pursuing a complaint or informal resolution procedure does not compromise one's rights to initiate a grievance or seek redress under state or federal laws.

E. Discipline—Upon receiving an accusation of sexual harassment against a member of the faculty, staff, or student body, the University will investigate and, if substantiated, will initiate the appropriate disciplinary procedures. There is a five-year limitation period from the date of occurrence for filing a charge that may lead to discipline.

An individual who makes an accusation of sexual harassment will be informed:

1. At the close of the investigation, whether or not disciplinary procedures will be initiated; and
2. At the end of any disciplinary procedures, of the discipline imposed, if any.

Auxiliary Aids for Students with Disabilities

The University maintains its commitment to the education of qualified handicapped students by providing them an equally effective opportunity to participate in or benefit from its educational programs as afforded non-handicapped students.

As a part of this commitment and upon the request of a qualified disabled student, the Vice Chancellor for Student Affairs or designee will arrange for an assessment of the student's abilities and his or her need for some type of auxiliary aid.

This assessment will include an evaluation of the extent of the student's disability and the requirements of the particular course or education program in which the student is enrolled or plans to be enrolled.

If after the assessment of the student and the course, the University determines that some type of auxiliary aid is required, it will assist the qualified disabled student in obtaining the necessary auxiliary aid from other sources.

If the necessary auxiliary aid is not available from other sources, the University, at its option, shall provide the necessary auxiliary aid or reimburse the student for the reasonable cost of the necessary auxiliary aid.

Requests by students for such assessments must be made no later than six weeks prior to the beginning of the next semester in order to provide sufficient time for the assessment and for obtaining any necessary auxiliary aid.

Unfavorable determinations made pursuant to this policy may be appealed by the handicapped student through the University of Missouri Discrimination Grievance Procedures for Students, a copy of which will be provided to any student whose request for auxiliary aid is denied. (Additional resource materials are available through the Office of Equal Opportunity.)

AIDS Policy Statement

Current knowledge indicates college and university students or employees with AIDS, ARC, or a positive antibody blood test do not pose a health risk to either students or employees in a usual academic or residential setting. The policy of the University of Missouri is to permit students and employees with AIDS to continue to engage in as many of their normal pursuits as their condition allows. Managers should be sensitive to the medical problem and ensure that such employees are treated consistent with the treatment of other employees. Students will be allowed to continue their enrollment and activities (including continued residency in student housing) as long as they continue to meet academic standards and medical evidence indicates their conditions are not a threat to themselves or others. Every effort will be made to maintain confidentiality at all times.

The University also has a legitimate interest in the welfare of all students, employees, and visitors to the campus. Every reasonable precaution will be taken to minimize the risk that an employee's or student's condition will present a health and/or safety hazard to others.

The University will not discriminate against individuals with HIV infection, AIDS or ARC, but this protection does not include individuals with secondary infections or diseases that would constitute a direct threat to the health or safety of others or who may because of the disease or infection be unable to perform duties of their employment. In such cases, the appropriate University personnel or student policy will determine what changes, if any, will be made in the student's or employee's academic or work program.

In the event of public inquiry concerning AIDS on campus, the Chancellor or the Chancellor's designee will provide appropriate information on behalf of the University. Existing policies regarding confidentiality of employee and student records will be followed.

Consistent with its concern for students and employees with AIDS, the University offers a range of resources through the AIDS Task Force on each campus and through other campus services.

a. Student, employee, and management education and information;

Auxiliary Aids for Students with Disabilities

- b. Referral to agencies and organizations that offer supportive services for life-threatening illnesses;
- c. Consultation to assist employees in effectively managing health, leave, and other benefits.

The AIDS Task Force on each campus will continue to meet periodically to review and update policy and to make recommendations as new medical facts become available. Each Task Force will continue to encourage programs to educate all members of the campus community about the reality of AIDS.

To address specialized needs, each campus is authorized to adopt and implement special policies related to AIDS which are consistent with this policy statement.

The Office of Equal Opportunity is located in 414 Woods Hall. The telephone number is 516-5695.

Affirmative Action on Committee Appointments Policy—As a part of the implementation of the Affirmative Action Plan of the University of Missouri, any person appointing any committee for the University or any campus, in selecting the membership, shall give due consideration to the inclusion in such membership of women and minorities unless membership thereon is ex-officio.

Executive Order No. 3, 7-18-97

20.021 Maintaining A Positive Work and Learning Environment

1. The University of Missouri is committed to providing a positive work and learning environment where all individuals are treated fairly and with respect, regardless of their status. Intimidation and harassment have no place in a university community. To honor the dignity and inherent worth of every individual — student, employee, or applicant for employment or admission — is a goal to which every member of the university community should aspire and to which officials of the university should direct attention and resources.

2. With respect to students, it is the university's special responsibility to provide a positive climate in which students can learn. Chancellors are expected to provide educational programs and otherwise direct resources to creative and serious measures designed to improve interpersonal relationships, to help develop healthy attitudes toward different kinds of people, and to foster a climate in which students are treated as individuals rather than as members of a particular category of people.

3. With respect to employees, the strength we have as a university is directly related to maintaining a positive work environment throughout the institution. The university should provide a positive recruiting and work environment focused on the duties and skills of the work to be performed. It is the expectation of the university that all employees and potential employees will be

treated on the basis of their contribution or potential contribution without regard to personal characteristics not related to competence, demonstrated ability, performance, or the advancement of the legitimate interests of the university. The General Officers are expected to provide training programs for supervisors to assist in achieving this objective.

Other Procedures or Regulations

Discrimination Grievance Procedure for Students

390.010

December 17, 1982, and January 25, 1990

A. GENERAL

1. It is the policy of the University of Missouri to provide equal opportunity for all enrolled students and applicants for admission to the University on the basis of merit without discrimination on the basis of their race, color, religion, sex, national origin, age, or disability, or Vietnam era veteran status. Sexual harassment shall be considered discrimination because of sex.

2. To insure compliance with this policy, all University of Missouri prospective or enrolled students shall have available to them this student discrimination grievance procedure for resolving complaints and/or grievances regarding alleged discrimination.

3. This grievance procedure neither supersedes nor takes precedence over established University procedures of due process for any and all matters related to Academic Dishonesty, Grade Appeals, Traffic Appeals, Disciplinary Appeals, or other specific campus procedures which are authorized by the Board of Curators and deal with faculty/staff responsibilities.

4. These proceedings may be terminated at any time by the mutual agreement of the parties involved.

NOTE: A grievance concerning specific incidents filed under this discrimination grievance procedure shall not be processed on behalf of any student who elects to utilize another University grievance procedure. In addition, the filing of a grievance under these procedures precludes the subsequent use of other University grievance or appeals procedures for the same incident.

B. DEFINITIONS

1. A complaint is an informal claim of discriminatory treatment. A complaint may, but need not, constitute a grievance. Complaints shall be processed through the informal procedure herein set forth.

Other Procedures or Regulations

2. A grievance is the written allegation of discrimination which is related to:

- a. Recruitment and admission to the institution.
- b. Admission to and treatment while enrolled in an education program.
- c. Employment as a student employee on campus.
- d. Other matters of significance relating to campus living or student life, including, but not limited to: Assignment of roommates in resident halls; Actions of fraternities and sororities; Membership in and/or admission to clubs/organizations; Student Health Services; Financial aid awards.

3. A student is any person who has applied for admission or readmission, or who is currently enrolled, or who was a student of the University of Missouri at the time of the alleged discrimination.

4. Persons with disabilities—For the purpose of this student discrimination grievance procedure, a “person with a disability” has been substituted for “handicapped individual” (Section 504, Rehabilitation Act of 1973) and shall be defined as “...any person who

- a. Has a physical or mental impairment which substantially limits one or more of such person's major life activities,
- b. Has a record of such impairment, or
- c. Is regarded as having such an impairment.”

For purpose of this definition, “major life activity” means any mental or physical function or activity which, if impaired, creates a substantial barrier to employment and/or education.

Any reference in this document to written materials or to written or oral presentations within the student discrimination grievance procedure may be adjusted to accommodate persons with disabilities for whom the stated materials or required presentations would not be appropriate. Cost of such accommodation will be borne by the University, with no charge to the individual.

5. Appropriate Administrative Officer—The primary administrative officer on the staff of the Chancellor (in the area of Student Affairs/ Services, Administrative Services, Development, and Academic Affairs) having administrative responsibility for the unit in which the discrimination is alleged to have occurred.

6. Grievance Consultant—At any step the Director of Equal Opportunity or of Affirmative Action may be asked to serve as a consultant by any of the parties involved in this grievance procedure.

C. COMPLAINTS

1. Policies and Procedures—A student with a complaint will be provided with copies of appropriate policies and procedures pertaining to student complaints and grievances, and the Chief Student Personnel Administrator or his/her designee and the Officer for Equal Opportunity or for Affirmative Action shall be available to assist the student in understanding the opportunities afforded through such policies and procedures. The student may choose to have an advisor participate in any stage of the grievance procedure, subject to the restrictions of the hearing procedures set forth in Section 390.010 F.

2. Joint Complaint—If more than one student is aggrieved by the same action, these students may, by mutual written agreement among themselves, file with the Chief Student Personnel Administrator a complaint and pursue their complaints jointly under this grievance procedure. If the number of students in such a case is so large as to make it impracticable for them to be heard individually in a joint proceeding, they may, by mutual agreement, elect one or more of their number to act on behalf of them all.

3. Students may informally discuss a complaint with the relevant supervising administrator. Every reasonable effort should be made to resolve the matter informally at this administrative level. If a satisfactory resolution is not reached, the student may pursue the matter through each level of administrative jurisdiction up to and including the Appropriate Administrative Officer, or file a grievance within the time specified in D.1.b.

4. Complaints Involving Recruitment

- a. Undergraduate applicants must first present complaints about recruitment to the Director of Admissions. If a satisfactory resolution is not reached, the applicant may appeal the matter to the immediate supervising officer of the Director of Admissions.
- b. Applicants for graduate study may request a meeting with the academic department head and the Dean of the College, or their designees, who are actually involved in the recruitment effort to discuss the matter informally. If a satisfactory resolution is not reached, the applicant may appeal to the Dean of the Graduate School and finally to the Appropriate Administrative Officer.

5. Complaints Involving Admissions (Undergraduate or Professional)

- a. Undergraduate and professional student applicants shall present complaints to the Director of Admissions or to the Dean of the School or College, depending upon where the application was originally filed.
- b. This University official shall compare the person's academic qualifications against the official University admissions criteria and review the denial. If the denial is sustained, the applicant may appeal this decision to the official's immediate supervisor or to the appropriate admissions committee.

Other Procedures or Regulations

6. Complaints Involving Admissions

(Graduate)—Applicants to the Graduate School may ask for a meeting with the academic department head of the program to which the applicant was seeking admission. This official shall explain the reasons for the denial of recommendation for admission. If a satisfactory resolution is not reached, the applicant may then appeal to the Dean of the Graduate School or to the appropriate admissions committee. If the denial is upheld, the applicant may appeal the decision to the appropriate administrative officer.

7. Complaints Involving Admissions to or Treatment in an Educational Program or in the Granting of Assistantships—An undergraduate or graduate student enrolled at the institution who has a discrimination complaint involving admission to or treatment in an educational program or in the granting of assistantships may request a conference with the appropriate department head and with the Dean of the School or College (or the Dean's designee) to discuss the matter informally. If a satisfactory resolution is not reached, the student may present a grievance pursuant to Section 390.010 F.

8. Complaints Involving Nonacademic Matters Related to Campus Living and Student Life—A currently enrolled student who has a University-related complaint concerning discrimination in nonacademic matters including but not limited to assignment of roommates, actions of fraternities and sororities, membership in and/or admissions to clubs/organizations, student health services and financial aid awards may request a conference with the appropriate administrative supervisor, department head and/or director to discuss the matter informally. If a satisfactory resolution is not reached, the student may present a grievance pursuant to Section 390.010 D.

9. Complaints Involving Student Employment on Campus—A student enrolled at the University who alleges that discrimination occurred either in applying for work or while working as a student employee at a University job may request a conference with the supervisor, department head or director of the employing unit to discuss the matter informally. If a satisfactory resolution is not reached, the student may present a grievance pursuant to Section 390.010 D.

10. Complaints Involving Financial Aid (Undergraduate, Graduate, Professional):

a. Undergraduate, graduate, and professional student aid applicants shall present complaints to the Director of Student Financial Aid where the application was originally filed or the award originally made.

b. This University official shall compare the person's financial and academic qualifications against the official University financial aid criteria and review the award, amount, or denial of the aid. If the original judgment is sustained, the applicant may appeal this decision to the

official's immediate supervisor or to the appropriate financial aid committee.

D. INITIATING A GRIEVANCE

1. Policies and Procedures—A student with a grievance will be provided copies of appropriate policies and procedures pertaining to student complaints and grievances, and the Chief of Student Personnel Administrator or designee and the Office for Equal Opportunity or for Affirmative Action shall be available to assist the student in understanding the opportunities afforded through such policies and procedures. The student may choose to have an advisor participate in any stage of the grievance procedure, subject to the restrictions of the hearing procedures set forth in Section 390.010 F.

a. Joint Grievance—If more than one student is aggrieved by the same action, these students may, by mutual written agreement among themselves, file with the Chief Student Personnel Administrator a grievance and pursue their grievances jointly under this grievance procedure. If the number of students in such a case is so large as to make it impractical for them to be heard individually in a joint proceeding, they may, by mutual agreement, elect one or more of their number to act on behalf of all of them.

b. Regardless of their nature, all discrimination grievances are to be filed with the Chief Student Personnel Administrator. A grievance must have been filed by a student within one-hundred-eighty (180) calendar days of the date of the alleged discriminatory act.

2. Filing a Grievance

a. All grievances must be presented in writing and contain the following information:

1) A clear concise statement of the grievance which includes the name of the person(s) against whom the grievance is made, the date(s) of the alleged discrimination and a statement describing the specific supporting evidence;

2) A brief summary of the prior attempts to resolve the matter which includes the names of persons with whom the matter was discussed and the results of those previous discussions;

3) A specific statement of the remedial action or relief sought.

b. Within seven (7) working days, the original grievance form with an explanation will be returned to the student if, in the judgment of the Chief Student Personnel Administrator, the statements are vague or do not meet the above requirement. The student may make the necessary corrections and resubmit the grievance within seven (7) days.

Other Procedures or Regulations

3. Any grievance not filed within the time limits specified in Section 390.010 D.1.B shall be deemed waived by the grievant. The Chief Student Personnel Administrator may extend the time limits only if adequate cause for an extension of the time limits can be shown by the student.

4. For informational purposes, copies of the grievance shall be forwarded to the Appropriate Administrative Officer and the Director of Equal Employment and/or Affirmative Action.

5. Within fifteen (15) working days of receipt of a grievance that satisfies the requirement of Section 390.010 D.1.b, the Appropriate Administrative Officer with the consent of the parties involved may establish an informal hearing with the aggrieved student, the responding faculty/staff/organization, the respondent's supervisor and the Appropriate Administrative Officer's designee. The Appropriate Administrative Officer shall not involve himself/herself in this meeting. If this informal means of resolving the grievance fails, a grievance committee will be impaneled as called for in Section 390.010 E.1.

E. FORMATION OF GRIEVANCE COMMITTEE

1. It is the Appropriate Administrative Officer's responsibility to initiate the selection of the grievance committee within fifteen (15) working days after the request for the formation of a grievance committee or after the completion of the informal hearing provided for in Section 390.010 F.5 without satisfaction to the grievant.

Other Procedures or Regulations

2. A grievance hearing panel shall be established by October 1 of each year from which a grievance committee should be constituted. The panel shall consist of ten (10) faculty, ten (10) staff and ten (10) students. Selection of the panel will be made by the Chief Student Personnel Administrator from recommendations by the appropriate faculty, staff and student associations. Selection of membership will consider sex, race, disability, academic rank, student classification and employee classification. Membership on the hearing panel shall be for two years. A member's term shall expire on September 30 of the second year unless he/she is serving at that time on a hearing committee still in the process of reviewing an unresolved grievance. In such case, the member's term shall expire as soon as the committee has submitted a written report of its findings and recommendations to the Appropriate Administrative Officer.

3. A hearing committee shall be composed of five (5) members. The grievant shall select two (2) members from the grievance hearing panel provided by the Chief Student Personnel Administrator. The responding faculty/staff/organization shall select two (2) members

from the grievance hearing panel. Both parties should have their selections made within 15 working days of the receipt of the request. The four committee members shall then select an additional member from the grievance hearing panel to serve as chair. Neither members of the immediate departmental unit nor student members of pertinent student organizations involved in the grievance shall be eligible to serve on the committee

4. Any person selected to a grievance committee will be expected to serve on such committee and to be present at all sessions. If a member is absent from a single session, he/she will be required to review all tapes or transcribed proceedings of that session prior to the next meeting of the committee. Should a member be absent from two sessions or should a member request to be excused from service for reasons of illness, necessary absence from the campus or other hardship, then that member shall be replaced in the same manner used in the original selection (see Section 390.010 E.3). If a member is unable or ineligible to serve for whatever reason, the replacement shall review all tapes or written transcripts and all submitted evidence prior to service on the committee. Five members of the hearing committee, duly selected as in Sections 390.010 E.3 and E.4 must attend the opening and closing session of the hearing.

F. HEARING PROCEDURES FOR FORMAL GRIEVANCES

1. It shall be the responsibility of the Appropriate Administrative Officer to coordinate the procedures contained herein, to make provisions for hearing rooms to coordinate secretarial and recording services and to otherwise serve the grievance committee as needed.

2. At the first organizational meeting of the grievance committee, the committee shall elect a chairperson from among the members to preside over subsequent meetings. Then the chairperson shall schedule a hearing at the earliest convenient time when all affected parties can be present.

3. A quorum consists of a minimum of four members of the committee except as provided by Section 390.010 E.4.

4. The grievance committee shall invite the grievant and the responding person to all hearings. Attendance at the hearings shall be limited to persons who have an official connection with the case as determined by the chairperson. The grievant and the responding person may choose to be accompanied by an advisor. Others whose participation in the hearing is considered essential in order to assist the committee in establishing the facts of the case shall appear before the committee only long enough to give testimony and to answer questions of committee members.

Other Procedures or Regulations

5. It is within the duties and responsibilities of all members of a grievance committee to commit themselves to observe procedures consistent with fairness to all parties concerned. For example, it is a matter of principle that members of the grievance committee will not discuss a case with anyone outside of the hearing process and that their finding will not be influenced by anything other than the evidence presented to them in meetings in which all affected parties are present.

6. The grievance committee shall set forth the rules of procedure for the hearing within the guidelines set forth herein. The chairperson may, for good cause and with the concurrence of a majority of the entire committee, authorize deviation from the suggested format, in which case the principal parties shall be notified.

a. The grievant shall be heard first in all phases of a grievance hearing and shall be primarily responsible for the presentation of his/her position.

b. The advisor of the grievant or respondent may advise that person and may briefly explain his or her position but shall not be permitted to testify or to cross-examine.

c. A reasonable time limit should be established for opening and closing statements and shall be announced prior to the hearing.

d. Length of hearing sessions may be established in advance; every effort should be made to conduct the hearing as expeditiously as possible, with equal fairness to both parties.

e. The interested parties shall provide the chairperson with the names of the advisor and potential witnesses at least forty-eight (48) hours prior to the hearing. It is the responsibility of the interested party, working with the chairperson, to ensure the presence of these individuals in a timely manner.

f. After initial witnesses for both parties have been heard, such witnesses may be recalled for additional questioning if requested by either party or the grievance committee. The committee may call new witnesses whose testimony it deems relevant or helpful.

g. In order to promote the truthful, unfettered exchange of information and ideas, all testimony pertaining to the grievance hearing shall be held in confidence.

h. Only evidence relevant to the grievance may be introduced. Questions regarding the admissibility of evidence shall be decided by the chairperson.

7. At any point in the proceedings prior to the time at which the committee reaches its final decision, the grievant may withdraw any portion or all of the grievance with the consent of a majority of the committee members and of the respondent. In all cases of withdrawal at the consent of the committee and of the respondent, the grievant shall not have the privilege of reopening the same grievance at any time in the future. In the event that the student refuses to participate further in the committee hearing, the committee may choose to continue the case or to move to closure with an appropriate closing statement as per Section 390.010 F.9.

8. A confidential tape recording of the grievance hearing shall be made and will be accessible to the parties involved, the committee, the Appropriate Administrative Officer, the Chancellor, the President, members of the Board of Curators and authorized representatives on a need-to-know basis. Either party to the grievance may request that the committee provide a written transcript of testimony. The cost of preparation of such a transcript is to be paid by the party making such request unless Section 390.010 B.4 is applicable. After the report of the grievance committee has been prepared, the tapes and relevant materials will be sealed and filed in the Appropriate Administrative Office. Unless extraordinary circumstances apply, these materials will be destroyed at the end of five years.

9. At the conclusion of the grievance hearing, the members of the grievance committee shall meet in closed session to deliberate upon their findings. A majority vote of the entire committee shall be required on all decisions. The grievance committee shall make a written report on findings and recommendations to the Appropriate Administrative Officer of the University, with copies to the grievant(s) and the responding person(s). The written report will contain:

a. A statement of the purpose of the hearing,

b. Issues considered,

c. A summary of the testimony and other evidence presented,

d. Findings of fact as developed at the hearing, and

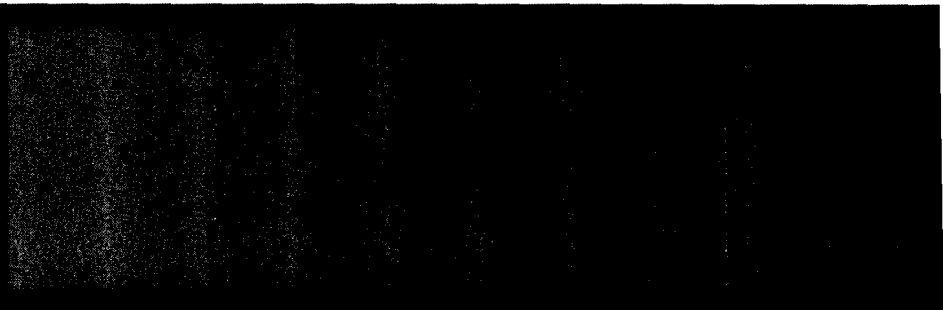
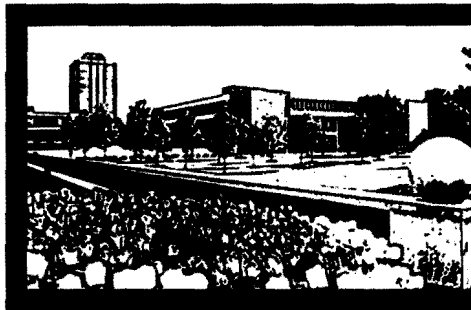
e. Recommendations for final disposition of the case.

10. The Appropriate Administrative Officer will make his/her decision. This decision and the actions that have been taken shall be presented to both parties in writing. If the administrative officer does not accept the recommendations of the grievance committee, a written statement of the reasons for so ruling must be given to both parties and to the chairperson of the committee.

Other Procedures or Regulations

11. If requested by the grievant or the responding party, normally within seven (7) calendar days of the notification of the decision, the decision of the Appropriate Administrative Officer may be subject to a review of the records by the Chancellor. Any review and decision by the Chancellor shall be made normally within thirty (30) calendar days. The decision of the Chancellor can be appealed to the President, who shall have thirty (30) calendar days in which to make a decision, which shall be final.

12. Grievances shall receive prompt attention. The hearing and the report of the grievance committee shall normally be completed within sixty (60) calendar days of the formation of the grievance committee, and a final decision shall be made by the Appropriate Administrative Officer normally within ten (10) calendar days thereafter. In any case in which these time schedules should prove to be inadequate, the committee shall present, in writing, an amended time schedule to all parties involved.



Index

- A.B. degree, See Bachelor of Arts
 Absence regulations 28
 Academic Advising, 23-25
 Academic calendar, 14
 Academic Development, Center for, 60
 Academic dishonesty, 29
 Academic Honors. See Honors
 Academic policies,
 Undergraduate, 26-28
 Graduate, 37-41
 College of Arts & Sciences, 70
 Academic probation, suspension, and dismissal, 29
 Academic standing, as a course prerequisite, 28
 Access to Success Program, 58
 Accounting, scholarships, See Business Administration and/or Financial Aid
 Accreditation, of the University, 6
 ACT, 19
 Activities fee, student, 31,
 Administration, University, 11-13
 Admission requirements and procedure, undergraduate study, 19
 Graduate School, 34
 See also individual College departments and/or Schools
 Adult Day Services, 59,64
 Adult Education (ADU ED). See Teaching & Learning, Education, School of
 Advanced Placement, test for transfer students, 20. See also College level examination program.
 Advance registration,
 Undergraduate students, 23
 Graduate students, 36
 Aerospace studies. See Air Force ROTC
 Affirmative Action Policies, 484
 AIDS Policy Statement, 485
 Air Force Reserve Officers Training (ROTC), 465
 Alcohol & Other Depressants, 52
 Alumni Association, UM-St. Louis, 54
 American Studies Minor in, 279
 Anthropology Department of, 73
 Appeals procedures, 474, 479
 Application for admission
 Graduate study, 34
 Undergraduate study, 19
 Application for candidacy for doctoral degree, 40 See also individual degree programs.
 Applied art. See studio art
 Applied mathematics. See mathematics department.
 Applied Psychology. See psychology department
 Aptitude tests required, 19
 Archaeology. See Anthropology
 Archives & manuscripts collections, 47
 Army Reserve Officers Training, 462
 Art and Art History Department of, 83
 Art Gallery. See gallery 210
 Arts & Sciences
 College of, 70-300
 Academic advising, 23
 Certificate programs, 72
 Continuing Education & Outreach, 72
 general information on degree requirements, 70-71
 preprofessional programs, 295
 See also names of individual departments
 Asian Studies, East Asian certificate program, 56, 408.
 Assessment, 26
 Assistantships
 Graduate, 43.
 Astronomy. See Physics & Astronomy
 Astrophysics, Bachelor of Science in physics option, 226
 Athletic coaching, minor in, 397
 Atmospheric science.
 See Physic & Astronomy
 Attendance regulations, 28
 Auditor, 23
 Auxiliary aids and services, 6, 45, 485
 B.A., B.G.S., B.M., B.S.M. B.S.W. degrees. See Bachelor of: individual name of degree.
 Baccalaureate (bachelor's degrees)
 College of Arts & Sciences requirements, 71
 degrees offered (list), 67
 University requirements, 20-21
 Bachelor of Arts degree, 67
 anthropology, 73
 art history, 83
 biology, 97
 chemistry, 122
 communication, 132
 economics, 149
 English, 157
 Evening College, 390
 foreign languages and literatures, 170
 history, 182
 mathematics, 193
 music, 205
 philosophy, 218
 physics, 226
 political science, 235
 psychology, 251
 sociology, 267
 Bachelor of Fine Arts, studio arts 67, 84
 Bachelor of General Studies, 67, 390
 Bachelor of Music degree, 67, 205
 Bachelor of Science degree, 67, 106
 accounting, 304
 applied mathematics, 193
 biology, 97
 chemistry, 122
 computer science, 193
 criminology and criminal justice, 140
 economics, 147
 Evening College, 390
 physics, 226
 sociology, 268
 Bachelor of Science in Education, 67,331
 Bachelor of Science in MIS, 304
 Bachelor of Science in Nursing , 67
 Bachelor of Science in Public Administration degree, 67, 235
 Bachelor of Social Work degree, 67, 263
 Basic skills requirement, 25
 Biochemistry, certification, 101, 286
 Biology Department of, 97
 Black Studies, minor in, 280
 Breadth of study requirement, 6, 25
 Bridge Program, 58
 Bush, Sr., James T., Center, 60
 Business Administration
 School of, 300-330
 admission to, 301
 faculty, 300
 graduate studies, 310
 undergraduate studies, 301
 Business and Industrial Studies, Center for, 56
 Calendar, Academic, 12
 Campus directory, map, 8
 Career Services, 50-51, 62-63
 CBHE Articulation Agreement, 21, 472
 Center for Academic Development, 60
 Center for Business and Industrial Studies, 56
 Center for Entrepreneurship and Economic Education, 56
 Center for Excellence in Metropolitan Education, 58
 Access to Success, 53
 Bridge Program, 58
 Junior Science, Engineering, and Humanities Symposium, 58
 Center for International Studies, 56
 Center for Metropolitan Studies, 60
 Center for Molecular Electronics, 56
 Center for Science and Technology, 57
 Centers, Specialized, 56-61,
 Certificate Programs, 39, 237
 africana studies, 293
 biochemistry, 101, 286
 biotechnology, 105, 291
 tropical&conservation biology, 102,29
 gerontological studies, 290
 international studies, 86-87
 photographic studies, 86-87
 studies in religion, 287
 trauma studies, 290
 women's and gender studies, 288
 non-profit organization management and leadership, 293-294
 writing, 62, 160, 282
 Change of major, 29
 Chemistry Department of, 122
 Child Development Center. See University Child Development Center
 Chinese. See foreign languages
 Classical Studies, minor in, 72, 280
 Clinical Psychology, Ph.D. in, 251
 College Level Examination Program (CLEP), 20, 391
 College Aptitude Test, 19
 College of Arts & Sciences. See Arts and Sciences, College of
 Commencement, 30
 Communication Department of, 132
 Communicative skills requirement, 25
 Community mental health, psychology degree focus area, 251
 Community Psychological Service, 251
 Comparative Politics. See Political Science
 Composition, English. See English Department
 Comprehensive Examinations, for doctoral degree, 40
 Computing, office of, 57, 263
 Computer Science, 193
 See also Mathematics and Computer Science,
 Confidentiality Policy, 44-45

Index

- Concerts. See music, department of
 Continuing Education & Outreach, 17,
 64-65
 Counseling, degree programs in, 335.
 See also Education, School of
 Counseling Service, 49
 Counselor Education (CNS ED), 335
 Course-Load Regulations
 graduate students, 36
 undergraduate students, 28
 Course numbering system, 6
 in education, 330
 Course prerequisite, explanation of, 28
 Credit hours, explanation of, 26
 Criminology and Criminal Justice
 Department of, 140
 Cultural Diversity Requirement, 70
 Cultural Opportunities
 See Art, Communication, Music
 Curators, Board of, 11
 Dean's List, 30
 Degree Programs, list of, 67
 Degree Requirements. See name of
 individual degree
 Delayed Grade, 27
 Delinquent Indebtedness;
 undergraduate, 32; graduate, 42
 Development Psychology degree, 251
 Diploma. See Commencement
 Disabled students, auxiliary aids and
 services to, 45, 485
 Discrimination Grievance Procedure for
 students, 486
 Dissertation, academic policies on, 40
 Dissertation committee, 40
 Doctoral Degrees
 degrees offered (list), 68
 biology, 97
 chemistry, 122
 nursing, 413
 optometry, 426
 physics, 226
 political science, 235
 psychology, 251
 Doctor of Education Degree, 68, 334
 Doctor of Optometry Degree, 68, 432
 Dropping/adding courses
 graduate students, 37
 undergraduate students, 28
 Drug and Alcohol Prevention
 Program, 52
 Dual high school/University enrollment,
 20
 Dual master's degree, 39
 Early Childhood Education. See
 Teaching and Learning, Education,
 School of
 East Asian Studies Certificate, 56, 408
 Economics, Department of, 147
 Ed.D. degree. See Doctor of Education
 Education, School of, 330-389
 Ed.D. degree, 334
 M.Ed. Program, Ph.D. 335
 Ph.D. degree, 336
 Educational Fees. See Fees
 Educational Foundations (ED FND)
 See teaching and Learning,
 Education, School of
 Educational Leadership & Policy
 Studies, 346
 Educational Psychology & Research and
 Evaluation, 351
 Educational Support Services, 359
 Education Courses,
 Abbreviations used, 331
 Education, School of, 14, 331-389
 admission to, 351
 advising, 23-25, 334
 graduate studies, 334
 undergraduate studies, 332
 Elementary Education. See Teaching
 and Learning
 Employee Training and Development,
 minor in, 310, 393
 Employment. See Career Placement
 Engineering, 445, 459
 astrophysics option, 227
 engineering physics option, 227
 general physics option, 227
 pre-engineering program, 295
 Engineering Program
 UM-St. Louis/Washington University
 Joint Undergraduate, 445
 Engineering Education Center
 UM-Rolla, 61, 459
 English as a second language, 60
 English composition requirement, 25
 English Department of, 157
 Enrollment information
 graduate studies, 36
 undergraduate studies, 28
 Entrepreneurship and Economic
 Education, Center for, 56
 Equal Educational Opportunity. See
 Affirmative Action Policies
 European Studies, 408
 Evening College, 390-393
 admission to, 391
 Bachelor of General Studies, 390
 Evening College Counsel, 53
 Examinations
 academic policy on, 27
 aptitude tests for admission, 19
 for graduate study, 34
 proficiency in basic skills, 25
 test of English as a foreign language,
 (TOEFL), 34
 Excused Grade, 27
 Excellence in Metropolitan Education,
 Center of, 58
 Eye Protection Law, 7
 Faculty. See individual department
 Fees
 educational, 31
 graduate study, 41
 parking, 32
 refund of, 32, 42
 School of Optometry, 426
 transcripts, 32
 undergraduate study, 31
 See also Financial Aid
 Fellowships, 43
 Finance Courses
 See Business Administration
 Financial Aid, 46
 Financial Aid appeals, 479
 Food Services, 48
 Former students, re-enrollment, 22
 Foreign language requirement
 College of Arts and Sciences, 71
 Graduate School programs, 38
 Foreign Languages and literatures,
 Department of 170
 Foreign Students, Admission
 requirements, 22
 Foreign Study
 Study Abroad Programs, 466
 French, program in, see Foreign
 Languages and Literatures dept.
 Gallery 210, 54, 83
 General Education Requirements,
 University, 23-26
 General Studies, Bachelor of, 490
 Geography, see Economics dept.
 Geology, see Physics dept.
 German, program in, see Foreign
 Languages and Literatures dept.
 Gerontology, 401
 Government courses see Political
 Science dept.
 Grade grievance, 479
 Grade Modification, 28
 Grade-point average, 27, 38
 Grading system
 graduate study, 38
 undergraduate study, 27
 Graduate Management Admission test,
 34, 310
 Graduate Record Examination, 34
 Graduate School, 34
 academic policy, 37
 admission to, 34
 degrees offered (list), 67
 enrollment in, 36
 doctoral program, 40
 fees and financial assistance, 41
 master's degree program, 39
 registration, 36
 Greek. See Foreign Languages
 Handicapped student services, 6, 45,
 485
 Hazing, Policy on, 481
 Health Fee, 31
 Health Risks, 52
 Health Sciences, see Nursing, Optometry
 and Evening College
 Health Services, 52
 High School Equivalency, basis for
 admission, 20
 High school/University dual enrollment,
 20
 History Department of, 182
 History of UM-St. Louis, 15
 Home economics. See Economics
 Honor Societies, 30
 Honors, 29
 Pierre Laclede Honors College, 440
 Horizons, 50
 Horticulture, 466
 Hotline Phones, 84
 Housing Information, 51
 Humanities, Center for, 59
 Incomplete grade. See delayed grade, Y
 grade
 Institute and workshop courses, 37
 Institute for Policy Leadership, 60
 Instructional Computing Fee, 32, 42
 Instrumental music See Music
 Insurance, Student, 32
 Interdisciplinary Studies
 gerontology certificates, 401
 interdisciplinary minors, 279
 Master of Public Policy
 Administration degree, 395

Index

- International Center for Tropical Ecology, 57
 International Studies, Center for, 56, 407
 Internships. See Career Services Office
 Inter-campus Exchange Program, 35
 Inter-School studies, 395
 Inter-University Consortium for Political and Social Research, 57, 236
 Introduction to UM-St. Louis, 15
 Italian. See Foreign Languages
 Japanese. See Foreign Languages
 Journalism courses. See Preprofessional Programs, Journalism, School of, (UMC), 296
 Junior college students. See Transfer Students.
 Junior Science, Engineering, and Humanities Symposium, The, 58
 KWMU radio, (FM91), 59
 Language and grammar. See Certificate in Writing and also English, Language courses
 Latin. See Foreign Languages
 Latin American Studies Certificate, 56, 409
 Latin honors at graduation, 30
 Law School preparation, 237, 296
 Leave of absence, graduate study, 36
 Legal Sanctions, 52
 Legal studies, minor in, 281
 Libraries, UM-St. Louis, 47
 Literature in Translation courses. See Foreign Languages
 Loans See Financial Aid
 M.A., Macc, MBA, M.Ed., MPPA, or M.S. degrees. See Master of: individual name of degree
 Major, change of, 29
 Management courses, graduate level. See Business Administration, Management (400-level)
 Map, campus, 8
 Marketing courses, graduate level. See Business Administration
 Mark Twain Building, 54
 Master of Accounting, 68, 301
 Master of Arts
 degrees offered (list), 68
 See also Master's Degree, general information
 Math, tutoring in, 60
 Mathematical skills requirement, 25
 Mathematics and Computer Science Department of, 193
 Math Workshops & Reviews, 60
 Medical school preparation, 296
 Metropolitan Studies, Center for, 60
 Minors, See department information
 Mission Statement, 15
 Molecular Electronics, Center for, 56
 Multicultural Relations/Academic Affairs, Office of, 61
 Music Department of, 205
 Neurodynamics, Center for, 57
 Nonresident students, 20, 31
 North Central Association, 6
 Nursing, Barnes College of, 413
 Optometry, School of, 426
 P.H.D. programs, see Doctoral degrees
 Pharmacy, preparation for, 297
 Philosophy Department of, 218
 Photographic studies, certificate in, 86, 286
 Physical Education, See Teaching and Learning section of Education, School of.
 Physics and Astronomy department of, 226
 Pierre Laclède Honors College, 10, 25, 29, 440
 Plagiarism. See Academic Dishonesty
 Police, Campus, 54
 Political Science department of, 235
 Post-doctoral studies, 35
 Pre-Architecture program, 295
 Pre-Engineering program, 295
 Pre-Journalism program, 296
 Pre-Law program, 296
 Premedical sciences program, 296
 Pre-Optometry, 297
 Pre-Pharmacy program, 297
 Preprofessional programs, 297
 Preregistration, 23
 Prerequisites, for a course, 28
 Probability and statistics courses, see Mathematics and Computer Science
 Probation, suspension, and dismissal, 29
 Proficiency examinations in basic skills, 25
 Programs at other universities, 466
 Provision of auxiliary aid, 6, 45, 485
 Provisional students, 35
 Psychology department of, 251
 Public Affairs Journalism, minor, 282
 Public Policy Administration Program, 396
 Public Policy Research Centers, 59
 James T. Bush, Sr., Center, 60
 Center for Excellence in Metropolitan Education, 58
 Public Policy Extension/Survey and Applied Research, 60
 Radio Station KWMU, 59
 Radio/Television studies. See Communication, department of.
 Registration, 23
 Repeating courses, 27
 Research Administration, Office, 58
 Reserve Officer Training Corps, (ROTC), 460
 Residential Life, Office of, 49
 Residency Requirements, 35, 40, 71, 303
 Russian. See Foreign Languages
 Safety glasses, 7
 SAT, 19
 Satisfactory/Unsatisfactory option, 27
 Scholarships, see Financial Aid
 Science and Technology, Center for, 57
 Secondary Education, See Teaching and Learning section of Education, School of.
 Section change, 29
 Senate, 53
 Smoke-Free Campus policy, 53
 Social Sciences requirement, see American history and government
 Social Work department of, 262
 Sociology department of, 267
 Special Education, see Teaching and Learning, Education, School of.
 Sports, 54
 Standard of Conduct, 52, 474
 Student Affairs Division, 49
 Student Association, 53
 Student Conduct Code, 52, 474
 Student Court, 53
 Student Disciplinary Matters, 475
 Student Employment program, see Career Services
 Student Financial Aid, see Financial Aid
 Student government, 53
 Student Health Services, 54
 Student organization Policy, 480
 Student records, privacy of, see Confidentiality Policy
 Student teaching, see Education, School of.
 Studio Art, BFA, 85
 Study Abroad Program, 56, 466
 Test of English as a Foreign Language (TOEFL), 20, 103, 428
 Thesis, in master's program, 39
 Time limitation in graduate degree programs, 39, 40
 Transcripts,
 UM-St. Louis 30
 high school, 19
 transfer student, 21
 foreign students, 22
 Transfer students within University of Missouri system, 21
 Trauma Studies Certificate, 290
 Trial admission, 20
 Tuition, see Fees
 Tutorial lab and services, 61
 UM-Rolla Engineering Education Center, 459
 UM-St. Louis/Washington University Joint Undergraduate Engineering Program, 445
 Undergraduate study, 19
 academic policy, 26
 admission to, 19
 degrees offered (list), 67
 enrollment and advising, 23
 fees, 31
 College of Arts and Sciences, 70
 University Academic Structure, 11
 University Center, 48
 Audio/visual services, 48
 University Child Development Center, 59, 336
 University Discipline, 52
 University Eye Center, 60
 University Senate, 53
 Urban Information Center, 58
 Urban Studies, minor, 282
 Veterans, 19, 30
 Video Instructional Program, 61, 469
 Visiting students, 22, 35
 Vocal instruction, see Music, dept. of
 Western Historical Manuscript Collector, 47
 Who's Who Among Students in American Universities and Colleges, 30
 Withdrawal from the University, 32
 Women's Center, 50
 Women's and Gender Studies, 288
 Writing Certificate Program, 290
 Writing Lab, 60
 Y grade, 27