

Requirements

Students must complete the following six courses or appropriate substitutes if course waivers are appropriate:

MKTG 5700, Contemporary Marketing Concepts
MKTG 5710, Consumer Motivation and Behavior
MKTG 5740, Marketing and Business Research

Marketing Management:

MKTG 5701, Marketing Planning and Strategy
MKTG 5720, Marketing Communications

All course prerequisites and all course waivers are applicable. The Marketing Area Coordinator and the Director of Graduate Studies in Business must approve substitute courses. In all cases, 18 hours (including at least 12 hours in Marketing) are needed to complete the certificate.

Course Descriptions

All undergraduate courses are listed under the following categories: Accounting (ACCTNG), Business Administration (BUS AD), Finance (FINANCE), Information Systems (INFSYS), Logistics and Operations Management (LOG OM), Management (MGMT) and Marketing (MKTG).

The College of Business Administration uses the University course numbering system.

A minimum grade of C- shall be required to meet the prerequisite requirement for any course. Prerequisites may be waived only by consent of both the instructor and the area coordinator. A minimum campus GPA of 2.0 is required for admittance to each upper division 3000 and 4000 level Business Administration course.

BUS AD 1000 Introduction to Business (3)

Overview of the functional business disciplines, including but not limited to principles of Accounting, Finance, Information Systems, Law, Logistics and Operations Management, Management, and Marketing.

FINANCE 1590 Personal Finance for Nonbusiness Majors (3)

For future professionals who want to learn more about personal finance and how to better manage their resources. The topics include purchasing/leasing cars, home acquisitions, investing in stocks and bonds, mutual funds, retirement planning and health and life insurance. Special emphasis will be on the nontechnical aspects of these issues. Cannot be used for credit in BSBA program.

INFSYS 1800 Computers and Information Systems (3) [MI]

This course covers the basic concepts of networked computers including the basics of file management on local and remote computers, electronic mail, Internet browsers,

and web page development. Students are also exposed to applications used in business for solving problems, communicating, and making informed decisions, including word processors, presentations software, and electronic spreadsheets. Students will also develop business applications using a popular programming language or database management tool. Credit cannot be granted for both CMP SC 1010 and INFSYS 1800.

BUS AD 2000 Topics in Business Administration (1-3)

Prerequisites: Vary with topic; contact the College of Business Administration. Study of selected special problems in business and administration. May be repeated for credit with different topics.

ACCTNG 2400 Fundamentals of Financial Accounting (3)

Prerequisites: MATH 1030 and completion of 27 credit hours MATH 1030 may be taken concurrently. This is a one-semester course in financial accounting theory and practice. The primary emphasis is on the corporate financial statements of income, financial position and cash flow—their content and interpretation; and the impact of financial transactions upon them.

ACCTNG 2410 Managerial Accounting (3)

Prerequisites: MATH 1030 and ACCTNG 2400. This is an advanced course that goes beyond the scope of a second-semester course in fundamentals of accounting. The development, interpretation, and use of relevant cost behavior, control, and traceability concepts for management planning, controlling, and decision making are emphasized. Topics include: an introduction to product costing, the contribution concept, direct costing, performance standards and variance analysis, responsibility accounting, segment profitability, alternative choice decisions, and capital budgeting.

INFSYS 2800 Information Systems Concepts and Applications (3)

Prerequisites: INFSYS 1800 or satisfactory performance on proficiency exam. This course covers concepts of information systems as they relate to business functions, including web page design and e-commerce, telecommunications, system analysis and design, ethics of information system design and use, information security, foundations of database systems and integrated business information systems. Students will also gain valuable strategies for career development, contact management, and networking.

BUS AD 2900 Legal Environment of Business (3)

Prerequisites: ECON 1001 and ACCTNG 2400. An introduction to the nature and meaning of law, sources of law, legal process and institutions. The legal environment of business is defined as: the attitude of the government toward business, the historical development of this attitude; current trends of public control in taxation, regulation of commerce, and competition; freedom of contract, antitrust legislation

and its relationship to marketing, mergers, and acquisitions; and labor management relations.

BUS AD 3090 Internship in Business Administration (1-3)

Prerequisites: A minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of Business Administration electives and have consent of supervising instructor and Associate Dean. A Business College GPA of at least 2.5 is also required. Students are employed in the field of Business Administration where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are the primary goals. A Business Administration faculty member will monitor the student's program with the student providing a formal writing report at the end of the project. BUS AD 3090 may not be counted toward the minimum credit hours for any emphasis area.

BUS AD 3099 Independent Study in Business Administration (1-3)

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the associate dean. Special individual study in business under the supervision of a full-time faculty member.

BUS AD 3100 Contemporary Business Communication (3)

Prerequisites: ENGL 1100 or equivalent and a minimum campus GPA of 2.0. (COMM 1040 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.

BUS AD 3198 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.

BUS AD 3288 Independent Study in International Business (1-3)

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the area coordinator of the specific discipline. Special individual study in international business under the supervision of an approved faculty member.

BUS AD 3289 Practicum in International Business (3)

Prerequisites: At least one international business course, 2.0 campus GPA and completion of an approval form. Students will apply both their language skills and knowledge of international business by working for a three-month period in an organization located outside the student's country of origin. This course requires students to prepare a research

report summarizing the global experience and how it relates to the international business program.

LOG OM 3300 Business Statistics (3)

Prerequisites: MATH 1100 and 1105, INFSYS 1800 and a 2.0 campus GPA. Construction and use of statistical models for business management. Students will learn techniques used for relational analysis and business forecasting and how to apply them in a business context. Tools include Chi-Square tests of statistical independence; analysis of variance; simple linear regression and correlation; multiple linear regression; and extrapolative techniques such as moving averages and exponential smoothing. Emphasis is placed on problem definition, construction of statistical models, analysis of data, and interpretation of results. Computers are used for extensive analyses of case data.

LOG OM 3320 Introduction to Operations Management (3)

Prerequisites: A 2.0 campus GPA and either (Econ 1001, ACCTNG 2410, and LOG OM 3300) or (Math 2000 and Stat 1320). An examination of the concepts, processes, and institutions, which are fundamental to an understanding of manufacturing and service operations within organizations. Emphasis is on the management and organization of operations and upon the application of quantitative methods to the solution of strategic, tactical and operational problems.

LOG OM 3390 Internship in Logistics and Operations Management (1-3)

Prerequisites: A minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of LOM electives and have consent of supervising instructor and Area Coordinator. A Business College GPA of at least 2.5 is also required. Students are employed in the field of Logistics and Operations Management (LOM) where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are the primary goals. An LOM faculty member will monitor the student's program with the student providing a formal written report at the end of the project. LOG&OM 3390 may not be counted towards the minimum credit hours for the LOM emphasis.

LOG OM 3399 Independent Study in Logistics & Operations Management (1-3)

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the area coordinator. Special individual study in logistics and operations management under the supervision of a full-time logistics and operations management faculty member.

ACCTNG 3401 Financial Accounting and Reporting I (3)

Prerequisites: A minimum 2.0 campus GPA, Math 1030, ACCTNG 2410, and 57 credit hours. Review of the foundations of financial accounting theory and of the financial statement preparation process. Accounting theory and practice related to current assets (except for investments

in securities). The course includes an emphasis on unstructured case problem solving skills, communication skills, and interpersonal skills.

ACCTNG 3402 Financial Accounting and Reporting II (3)

Prerequisites: MATH 1030 and ACCTNG 3401; also a minimum campus GPA of 2.0 and minimum GPA of 2.2 in all accounting courses at the 3000-level and above taken at UM-St. Louis. Accounting theory and practice related to topics such as, investments in securities, operational assets, current and long-term liabilities, and leases. The course includes an emphasis on unstructured case problem solving skills, communication skills, and interpersonal skills.

ACCTNG 3411 Cost Accounting (3)

Prerequisites: MATH 1030 and ACCTNG 3401; also a minimum campus GPA of 2.0 and minimum GPA of 2.2 in all accounting courses at the 3000-level and above taken at UM-St. Louis. The study of the basic principles of cost determination for, and control of, manufacturing and distribution activities. Topics include job-order costing, process costing, cost allocations, and the development and use of standard costs within a system of absorption costing.

ACCTNG 3421 Accounting Information Systems (3)

Prerequisites: A minimum 2.0 campus GPA. In addition, MATH 1030, IN SYS 1800, ACCTNG 2410, and ACCTNG 3401. Examines the fundamentals of accounting information systems, including hardware and software considerations, internal controls, and transaction processing cycles. Also focuses upon the development of efficient spreadsheets as applied to financial and managerial accounting concepts.

ACCTNG 3441 Income Taxes (3)

Prerequisites: MATH 1030 and either ACCTNG 3401 or FINANCE 3560; also a minimum campus GPA of 2.0 and minimum GPA of 2.2 in all accounting courses at the 3000-level and above taken at UM-St. Louis. Fundamentals of federal income taxation. Topics include taxable entities, income, deductions, tax accounting methods, tax basis, and property transactions at both the conceptual and operational levels.

ACCTNG 3445 I.R.S. Procedures and Federal Taxation of Estates, Gifts and Trusts (3)

Prerequisites: MATH 1030 and either ACCTNG 3401 or FINANCE 3560; also a minimum campus GPA of 2.0 and minimum GPA of 2.2 in all accounting courses at the 3000-level and above taken at UMSL. The first topic includes the federal taxation of estates, gifts and trusts as they relate to wealth management. The second topic concerns interaction with the federal tax authorities. Topics may include preparing an audit protest, a request for and I.R.S. ruling, and a petition to the U.S. Tax Court.

ACCTNG 3451 Accounting for Governmental and Not-for-Profit Entities (3)

Prerequisites: MATH 1030 and ACCTNG 3401; also a minimum campus GPA of 2.0 and minimum GPA 2.2 in all accounting courses at the 3000-level and above taken at UM-St. Louis. Principles of fund accounting and financial reporting for governmental and not for profit entities. This course includes an emphasis on unstructured case problem solving skills, communication skills, and interpersonal skills.

ACCTNG 3490 Internship in Accounting (1-3)

Prerequisites: A minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of Accounting electives at the 3000-level or above and have consent of supervising instructor and Area Coordinator. A Business college GPA of at least 2.5 is also required. Students are employed in the field of Accounting where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are primary goals. An accounting faculty member will monitor the student's program with the student providing a formal written report at the end of the project.

ACCTNG 3499 Independent Study in Accounting (1-3)

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the area coordinator. Special individual study in accounting under the supervision of a full-time accounting faculty member.

FINANCE 3500 Financial Management (3)

Prerequisites: ECON 1002, MATH 1105, and ACCTNG 2400, and a 2.0 campus GPA. The study of a firm's need for funds; the institutions, instruments, and markets concerned with raising funds; and the techniques of analysis used to determine how effectively these funds, once raised, are invested within the firm.

FINANCE 3501 Financial Policies (3)

Prerequisites: FINANCE 3500 and a 2.0 campus GPA. The intensification and application of the concepts developed in FINANCE 3500. Special emphasis is given to the development of top management policies and their application toward complex problems of finance. Techniques for identifying and dealing with these problems before they become acute will be investigated. Cases will be integrated with appropriate outside reading.

FINANCE 3502 Treasury Management (3)

Prerequisites: FINANCE 3500 and a 2.0 campus GPA. The focus of this course is on the role cash management plays in corporate finance. Topics include cash collection and payment systems, forecasting cash flows, electronic fund transfers, check processing, international cash management and managing bank relationships. Students passing the course with a grade of A or B are permitted to take the qualifying exam to become a Certified Cash Manager (CCM) under a special arrangement with the Treasury Management Association. Along with other finance courses,

this class prepares students for careers in the treasury departments of major companies or with service providers like banks.

FINANCE 3503 Computer Applications in Finance (3)

Prerequisites: INF SYS 1800, FINANCE 3500, one 3000 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.

FINANCE 3520 Investments (3)

Prerequisite: FINANCE 3500 and a 2.0 campus GPA. Financial analysis of debt and equity instruments available on organized exchanges and in less tangible over-the-counter markets. Techniques of such analysis are presented in context with economic and management circumstances within the company, industry, and economy.

FINANCE 3521 Financial Risk Management (3)

Prerequisites: FINANCE 3500 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.

FINANCE 3525 Practicum In Investments (1)

Prerequisite: FINANCE 3500 and a 2.0 campus GPA. Students will apply their knowledge of stocks and bonds by managing a real dollar portfolio of securities. This course requires that students perform technical and fundamental analysis, prepare research reports, present proposals and participate in group investment decisions. The University's Student Investment Trust provides the money for students to invest. Course may be repeated for credit up to a maximum of 3 credit hours.

FINANCE 3540 Financial Services Industry and Instruments (3)

Prerequisites: FINANCE 3500 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.

FINANCE 3541 Commercial Bank Management (3)

Prerequisites: ECON 1002, FINANCE 3500, and a 2.0 campus GPA. Corporate finance and microeconomics are applied to matters of importance to commercial bankers. Among the subjects treated are bank-asset portfolio construction, lending policies, liabilities management, bank capital structure, short-run cash management, financial market rates and flows, and quantitative models for bank

management. Commercial bank management is analyzed from an internal viewpoint in terms of what bank managers should look for in asset management and why; what market conditions they should be aware of; and what techniques they can use to meet changing economic and financial conditions.

FINANCE 3542 Principles of Real Estate (3)

Prerequisites: FINANCE 3500 and a 2.0 campus GPA. As an introduction to the real estate industry, the course broadly explores all phases of acquisition, development and disposal of real property. Topics include legal requirements of contracts, property rights, valuation and appraisal techniques, marketing, brokerage operations and practices, mortgage financing, leasing and property management.

FINANCE 3560 Practice of Personal Financial Planning (3)

A minimum campus GPA of 2.0; FINANCE 3500 or consent of instructor and Area Coordinator. Professional financial planning requires broad knowledge of investments, insurance, income taxation, retirement planning, and estate planning, as well as certification requirements and legal/ethical issues. This course introduces students to the field of financial planning, and provides an integrated overview of the topics listed above. Students interested in the Financial Planning track are encouraged to complete this course prior to taking other courses in the track.

FINANCE 3561 Principles of Insurance (3)

Prerequisites: FINANCE 3500 and 2.0 campus GPA. This is a survey course intended to introduce students to the basic concepts of insurance. Topics include the nature of risks, types of insurance carriers and markets, insurance contracts and policies, property and casualty coverage, life and health insurance, and government regulations. The functions of underwriting, setting premiums, risk analysis, loss prevention, and financial administration of carriers are emphasized.

FINANCE 3562 Life Insurance (3)

Prerequisites: FINANCE 3500 or equivalent and a minimum campus GPA of 2.0. This course explores the life insurance business from the perspective of both the consumer and provider. Coverage will include an analysis of the various types of life insurance products, aspects of life insurance evaluation, reinsurance, underwriting, and uses of life insurance in financial planning. Also included is an examination of the tax, legal, and ethical requirements.

FINANCE 3563 Retirement Planning and Employee Benefits (3)

Prerequisites: A minimum campus GPA of 2.0; FINANCE 3500 or consent of instructor and Area Coordinator. The course is designed to give students an understanding of the retirement planning process. Students will gain an appreciation of the usefulness (and shortcomings) of employee benefits and develop an ability to counsel others on important retirement and employee benefit decisions.

Corporate pension and profit sharing plans, self-employed Keough plans, IRA's annuities, health insurance and social security will be discussed.

FINANCE 3564 Estate Planning and Trusts (3)

Prerequisite: A minimum campus GPA of 2.0; FINANCE 3500 or consent of instructor and Area Coordinator. This course will focus on the responsibility of a financial planner in the formulation and implementation of an estate plan. Topics include wills, lifetime transfers, trusts, gifts, estate reduction techniques, tax implications in estate planning, business and inter-family transfers, dealing with incompetence, postmortem techniques, and the role of fiduciaries. Lectures, cases, and guest speakers will be used to stimulate analysis and discussion.

FINANCE 3580 International Finance (3)

Prerequisites: FINANCE 3500 and a 2.0 campus GPA. A study of international financial markets, instruments, portfolio strategies and international financial management. Topics will include international risks, foreign diversification, foreign investment, foreign exchange determination and international working capital management issues. Derivatives are explored as instruments to hedge foreign exchange risk exposure, and special markets are evaluated in the international corporate/investments setting. Cases and/or outside readings may be used to emphasize inter-related issues.

FINANCE 3581 Business in China (3)

Prerequisites: A minimum campus GPA of 2.0 and junior standing. Introduces students to the practices of doing business in China. Students will be introduced to the Chinese economic and business environment. Issues related to trade and foreign direct investment in China will be discussed. The course adopts an innovative approach; utilizing lectures, case analysis, projects, and student presentations.

FINANCE 3582 International Investment (3)

Prerequisites: FINANCE 3500. This course explores the concepts of investing and hedging in international markets. Topics include equity and bond markets, global risk management, portfolio diversification, currency risk, asset pricing, and alternative portfolio strategies. Techniques for using derivatives are discussed in the context of hedging exchange rate risk. Reading foreign exchange quotes and understanding the functioning of global markets is central to the course. A prior course in investments is recommended but not required.

FINANCE 3590 Practicum in Finance (1-3)

Prerequisites: A minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of finance electives and have consent of supervising instructor and Area Coordinator. A Business College GPA of at least 2.5 is also required. Students are employed in the field of finance where they apply the knowledge and skills learned in the classroom. Professional

development and obtaining specialized work experience in a Track area are the primary goals. The student's program will be monitored by a finance faculty member with the student providing a formal written report at the end of the project. FINANCE 3590 may not be counted toward the minimum 15 credit hours of finance electives for a finance emphasis.

FINANCE 3599 Independent Study in Finance (1-3)

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the area coordinator. Special individual study in finance under the supervision of a full-time finance faculty member.

MGMT 3600 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 at classic and current perspectives are provided.

MGMT 3611 Advanced Management and Organizational Behavior (3)

Prerequisite: MGMT 3600 and a 2.0 campus GPA. Building upon MGMT 3600, this course provides a more detailed examination of motivation, leadership, group process, decision-making, job design, and organizational development. In addition to providing more detail in terms of content, this course provides the student with considerable practical experience through the use of class exercises, case studies, and small group discussions.

MGMT 3612 Professional Skills Development (3)

Prerequisites: A minimum campus GPA of 2.0 and Junior Standing. This course focuses on career management. Topics include job search, interviews, resumes and cover letters, presentation skills, business etiquette, entry strategies, and career alternative.

MGMT 3621 Human Resource Management (3)

Prerequisites: MATH 1105, MGMT 3600 and a 2.0 campus GPA. In-depth examination of selected human resources management issues from a contemporary manager's viewpoint. Topics examined include: employee selection, performance appraisal, training and development, compensation, legal issues and labor relations.

MGMT 3622 Industrial and Labor Relations (3)

Prerequisite: MGMT 3600 and a 2.0 campus GPA. Emphasis is on the dynamic relationship between management, employees, unions, and government as determinants in the efficient and effective use of human resources. Current issues and case materials are used to supplement text and lecture.

MGMT 3623 Industrial and Organizational Psychology (3)

Same as PSYCH 3318. Prerequisites: PSYCH 2201 or MATH 1105, MGMT 3600. This course introduces the student to psychological research and theories pertaining to human behavior in the work setting. Topics covered include: selection, performance, appraisal, training, leadership, motivation, job satisfaction and organizational design.

MGMT 3624 Employee Training and Development (3)

Prerequisite: A minimum 2.0 campus GPA. In addition, MGMT 3600 or permission of instructor. An intensive study of training in organizations, including needs analysis, learning theory, management development, and development of training objectives and programs. Projects and exercises are used to supplement the readings.

MGMT 3680 International Management (3)

Prerequisites: A minimum 2.0 campus GPA. In addition, ECON 1002 and MGMT 3600; or consent of the instructor. A study of international business and management practices. Topics covered include an introduction to international management and the multinational enterprise, the cultural environment of international management, planning in an international setting, organizing for international operations, directing international operations, international staffing, preparing employees for international assignments, and the control process in an international context.

MGMT 3682 Managing the Global Workforce (3)

Prerequisites: A minimum 2.0 campus GPA. In addition, MGMT 3600 and at least one of the following: MGMT 3611 or MGMT 3621 or enrollment in Honors College or consent of instructor. A study of the international dimensions of organizational behavior and human resource management. The course provides an overview of the tools and skills that are necessary to understand and manage people in global organizations. Topics include motivation, leadership, communication, hiring, training, and compensation.

MGMT 3684 The Japanese Management System (3)

Prerequisites: MGMT 3600 and a 2.0 minimum campus GPA. This course provides an introduction to various aspects of the contemporary Japanese business system. The emphasis is on interpretation of issues from a managerial perspective. Topics include an overview of Japan's economic growth, government policies, industrial and financial structure of Japanese business, labor-management relations, internal management practices, international competitive strategies, managing U.S. subsidiaries in Japan, penetrating the Japanese market, Japanese investment in the U.S.A., and current issues in U.S. -Japan economic relations.

MGMT 3685 Role of the Global Corporation (3)

Prerequisites: A minimum campus GPA of 2.0 and MGMT 3600 or permission of the instructor. The purpose of this course is to create awareness of controversial issues about

international business. Students will gain a better understanding of resistance to and criticism of international business and will become better prepared for dealing with these issues and problems.

MGMT 3689 International Business and Society (3)

Encompasses the readings, lectures, company and government agency visits, and cultural visits that comprise annual Country Study Tours, (e.g., Austria, Japan, Thailand, etc.). The program includes 45 contact hours or more of classroom lectures covering aspects of the chosen country's business and society, in-depth pre-departure cross-cultural orientation and training supplemented by briefings on the country's economy and on U.S. market penetration by the Commercial Service, U.S. Embassy; a briefing by the in-country State of Missouri representative; briefings by host country agencies; company visits and factory tours; and tours of cultural sites. Student evaluation will be based on active participation and on a research paper based on readings, lectures, interviews and field observations.

MGMT 3690 Internship in Management (1-3)

Prerequisites: A minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of Management electives and have consent of supervising instructor and Area Coordinator. A Business College GPA of at least 2.5 is also required. Students are employed in the field of Management where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are primary goals. A Management faculty member will monitor the student's program with the student providing a formal written report at the end of the project.

MGMT 3699 Independent Study in Management (1-3)

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the area coordinator. Special individual study in management under the supervision of a full-time management faculty member.

MKTG 3700 Basic Marketing (3)

Prerequisites: ECON 1001, junior standing, and a 2.0 campus GPA. An examination of the character and importance of the marketing process, its essential functions, and the institutions performing them. Attention is focused on the major policies (such as distribution, product, price, and promotion), which underlie the multifarious activities of marketing institutions and the managerial, economic, and societal implications of such policies.

MKTG 3710 Consumer Behavior (3)

Prerequisites: MKTG 3700 and a minimum campus GPA of 2.0. A study of such consumer functions as decision making, attitude formation and change, cognition, perception, and learning. The marketing concepts of product positioning, segmentation, brand loyalty, shopping preference and diffusion of innovations are considered in context with the environmental, ethical, multicultural and social influences on an increasingly diverse American consumer.

MKTG 3720 Management of Promotion (3)

Prerequisite: MKTG 3700 and a 2.0 campus GPA. A study of the design, organization, and implementation of the marketing communications mix. Various methods, such as advertising, personal selling, and publicity are analyzed as alternatives for use alone, or in combination, to stimulate demand, reseller support, and buyer preference. Particular topics considered include: media selection, sales promotional, packaging, and selling strategy, and their relationships in the promotion process.

MKTG 3740 Marketing Research (3)

Prerequisites: INF SYS 1800, MKTG 3700, LOG OM 3300 and a 2.0 campus GPA. An investigation of the acquisition, presentation, and application of marketing information for management. Particular problems considered are defining information requirements, evaluating research findings, and utilizing information. Statistical methods, models, and/or cases are employed to illustrate approaches to marketing intelligence problems, such as sales forecasts, market delineation, buyer motives, store location, and performance of marketing functions.

MKTG 3750 Sales Management (3)

Prerequisites: MKTG 3700 and MGMT 3600; MGMT 3600 may be taken concurrently. Also a minimum campus GPA of 2.0. The aim of this course is to provide an understanding of how selling is critical to the success of marketing. The course will promote critical thinking skills as well as practical selling skills needed in a competitive marketplace. Course topics include, among others, selling principles and techniques, understanding of the tasks and roles of the sales manager, the management of sales professionals within an organization, developing and applying effective persuasive communications, creating a vision, developing and implementing a sales-team strategy, structuring sales-force, designing and assigning territories, recruiting, training, motivation and evaluating salespeople, methods of compensation, and forecasting sales. The emphasis will be on ways the sales-force can be molded to build long-lasting relationships with customers through the systematic analysis and solution of customers' problems.

MKTG 3760 Business-to-Business Marketing (3)

Prerequisites: Senior Standing, MATH 1105, MKTG 3700 and a 2.0 campus GPA. A study of the nature of the business-to-business (organizational) marketplace concentrating on those aspects that differentiate it from consumer markets. The major focus of the course is marketing strategy, starting with analysis of the market wants and segments, concepts of pricing, the distribution arrangements, and buyer/seller relations. In this last area, consideration will be given to service, personal selling, sales promotion, and advertising, as found in the organizational marketplace. At all times emphasis is given to relating business-to-business marketing strategy to basic concepts in underlying business disciplines. Lectures and case discussions are used heavily in the course.

MKTG 3770 Introduction to Transportation (3)

Prerequisites: A minimum campus GPA of 2.0; also Junior standing or instructor consent. This course provides an overview of the transportation sector, including history, providers, users, and government regulation. The importance and significance of transportation, the operational aspects of transportation modes of rail, water, motor, air and pipeline; the demand and supply of transportation, and the managerial aspects of these modes of transport will be covered in the course.

MKTG 3771 Traffic and Transportation Management (3)

Prerequisites: A minimum campus GPA of 2.0 and Junior standing or instructor's consent. This course focuses on the purchase of transportation and warehouse services and/or the operation of transportation services as a firm activity. This course is also designed to provide the student with an exposure to the managerial aspects of transportation management as a function of the firm's logistical strategy. In addition, it includes an introduction to the management of firms within the various transportation modes of rail, motor, air, water, and pipelines. This course is designed to provide the student with a basic understanding of the issues and work performed by traffic managers and the management of modern transportation firms.

MKTG 3780 International Marketing (3)

Prerequisite: MKTG 3700 and a 2.0 campus GPA. Marketing management problems, techniques and strategies needed to apply the marketing concept to the world marketplace. Understanding a country's cultural and environmental impact on the marketing plan is emphasized, as well as competing in markets of various cultures. Worldwide consumerism, economic and social development, the spread of multinational corporations, business ethics, and current economic and marketing issues are examined.

MKTG 3790 Internship in Marketing (1-3)

Prerequisite: A minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of Marketing electives and have consent of supervising marketing instructor and Area Coordinator. A Business college of GPA of at least 2.5 is also required. Students are employed in the field of Marketing where they apply for the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are primary goals. A Marketing faculty member will monitor the student's program with the student providing a formal written report at the end of the project. BA 3790 may be counted toward the minimum credit hours of marketing electives required for a marketing emphasis.

MKTG 3799 Independent Study in Marketing (1-3)

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the area coordinator. Special individual study in marketing under the supervision of a full-time marketing faculty member.

INFSYS 3806 Managerial Applications Of Object-Oriented Programming I (3)

Prerequisites: IN SYS 1800 or CMP SC 1220 or 1250 and a 2.0 campus GPA. The course provides a study of the UNIX operating system and the C++ programming language as they pertain to managerial applications. In addition, the course will introduce the use of object-oriented programming methodologies.

INFSYS 3807 Legacy Systems (3)

Prerequisite: A minimum campus GPA of 2.0 and INF SYS 3806. Structured COBOL programming techniques for business applications are presented. Included are report generation, control breaks, output editing, debugging tables, sort concepts, job control language, utilities, partitioned data sets, and updating files.

INFSYS 3810 Information Systems Analysis (3)

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 3806 or permission of instructor. Aspects and methods for managing the computer and information resources of organizations. Topics include: project management aligning IS plans with corporate plans, MIS organizational structures, demonstrating the values of systems, facility management, purchase decisions, software acquisition, software metrics, security issues, and economic evaluation, as they relate to information resources. Special cases of systems, such as Enterprise Resource Planning (ERP) systems, Supply Chain systems, and BPO will be discussed.

INFSYS 3815 Object Oriented Applications in Business (3)

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 3806. Object oriented programming techniques for business applications are presented. The topics are implemented in a C++ environment.

INFSYS 3816 Managerial Applications of Object-Oriented Programming II (3)

Prerequisites: INF SYS 3806 and a minimum campus GPA of 2.0. This course expands object-oriented skills taught in INF SYS 3806. The emphasis in this course is on object-oriented development tools and development in a client-server environment. The data management tools will include the use of SQL to access server-based databases.

INFSYS 3841 Enterprise Information Systems (3)

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 2800. Aspects and methods for managing the computer and information resources of organizations. Topics include aligning IS plans with corporate plans, MIS organizational structures, demonstrating the value of MIS to senior management, facility management, purchase decisions, software acquisition, software metrics, project management, security issues, and economic evaluation, as they relate to information resources.

INFSYS 3842 Management of Telecommunications (3)

Prerequisite: IN SYS 1800 and a 2.0 campus GPA. The technical and managerial aspects of telecommunications as they apply to the business environment are discussed. Issues include: communications components and services, local area network architecture, managerial implementations, organizational issues, and cost/benefit analyses.

INFSYS 3843 Decision Support Systems (3)

Prerequisites: LOG OM 3300 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.

INFSYS 3844 Developing Business Applications in .NET (3)

Prerequisites: A minimum campus GPA of 2.0 and INF SYS 3805 or INF SYS 3806. This course will enable students to design, implement, and debug object-oriented and data driven business applications in Visual Basic .NET. Students will learn application design choices, object-oriented design principles, event-driven programming, user interface programming using Windows Forms and user interface controls, data binding and database access using ADO.NET, exception handling, debugging and effective ways of working with Visual Studio.NET.

INFSYS 3845 Database Management Systems (3)

Prerequisites: INSYS 3815 or INFSYS 3816 and a minimum campus GPA of 2.0. This course provides an introduction to the design and use of databases in meeting business information needs. Topics include database planning, conceptual design, and data administration. The concepts are studied with projects involving the use of a current database management system.

INFSYS 3846 e-Commerce (3)

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 2800. This course provides an understanding of strategies, managerial issues, and technologies pertaining to electronic commerce in organizations. Topics covered include: history, business models, the virtual value chain, electronic markets, impact on organizational strategy and industry structure, analysis of successful strategies, and other emerging issues (legal, ethical, regulatory) related to managing electronic commerce, and the technical infrastructure enabling electronic commerce.

INFSYS 3847 Web Design (3)

Prerequisites: A minimum campus GPA of 2.0 and INFSYS 2800. This course focuses on web page planning, design, layout and construction. Topics covered include: setting up and maintaining a web site; understanding site structure, presentation, navigation and content management. HTML/XML, CSS, Dreamweaver, Fireworks, Flash, Photoshop, data access, scripting languages, and various other technologies and tools will be discussed.

INFSYS 3890 Internship in Management Information System (1-3)

Prerequisite: A minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 6 credit hours of management information systems electives at the 3000-level or above and have consent of supervising marketing instructor and Area Coordinator. A Business college of GPA of at least 2.5 is also required. Students are employed in the field of management information systems where they apply for the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are primary goals. A management information systems faculty member will monitor the student's program with the student providing a formal written report at the end of the project. INFSYS 3890 may not be counted toward the minimum credit hours of marketing electives required for a management information systems emphasis.

INFSYS 3899 Independent Study in Information Systems (1-3)

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the area coordinator. Special individual study in information systems under the supervision of a full-time information systems faculty member.

BUS AD 3900 Business Law: Contracts, Sales, Secured Transactions, Bankruptcy (3)

Prerequisites: ACCTNG 2400, ECON 1001, 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.

BUS AD 3901 Business Law: Negotiable Instruments, Business Organizations, Property (3)

Prerequisites: ACCTNG 2400, ECON 1001, 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.

BUS AD 3980 The Law of International Business Transactions (3)

Prerequisites: A minimum campus GPA of 2.0; also ECON 1002 and BUS AD 2900 or consent of instructor. A study of the role and function of International Law and national laws in the regulation of international business transactions. The impact of various legal regimes on import-export transactions, foreign investments, and operations of multinational enterprises will be included. The role of national government supranational governmental organizations, and non-governmental organizations in forming and administering the international legal environment will be studied.

BUS AD 3990 Internship in Business Law (1-3)

Prerequisite: A minimum campus GPA of 2.0; one must have completed and/or be currently enrolled in at least 3

credit hours of Business Law electives and have consent of supervising marketing instructor and Area Coordinator. A Business college of GPA of at least 2.5 is also required. Students are employed in the field of Business Law where they apply for the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are primary goals. A Business Law faculty member will monitor the student's program with the student providing a formal written report at the end of the project. BUS AD 3990 may not be counted toward the minimum credit hours of marketing electives required for a marketing emphasis.

BUS AD 3999 Independent Study in Legal Studies (1-3)

Prerequisites: Minimum campus GPA of 2.0 and approval by the supervising professor and the area coordinator. Special individual study in legal studies under the supervision of a full-time legal studies faculty member.

MGMT 4219 Strategic Management (3)

Prerequisites: Senior standing and FINANCE 3500, MKTG 3700, MGMT 3600, a minimum campus GPA of 2.0; and concurrent enrollment in BUS AD 4220. This is a capstone course drawing on the subject matter covered in prerequisite courses. Emphasis is on the formulation and implementation of corporate, business and functional strategies designed to achieve organizational objectives. Topics include the role of top management, globalization of business and ethical perspectives. Case studies and research reports may be used extensively. It is preferred that this course be taken during the student's final semester.

BUS AD 4220 Business Assessment Testing (0)

Prerequisite: Concurrent enrollment in MGMT 4219. A one-time lab during which a major field exam in business is administered. Course graded on a Satisfactory/Unsatisfactory basis. Satisfactory grade required for graduation.

BUS AD 4288 Internship in International Business (3-6)

Prerequisites: ECON 1001 and 1002, ACCTNG 2400 and ACCTNG 2410, an additional 12 hours in BUS AD, 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 an UMSL faculty member. Prior to the field experience students will receive training that includes familiarization with the language and practices of the country's business, the background of the host firm, and international information sources. The student will complete a written report of his/her project. Course may not be repeated for more than 6 hours credit.

LOG OM 4312 Business Forecasting (3)

Prerequisites: A minimum campus GPA of 2.0 and either LOG OM 3220 or MATH 3000 and Statistics 1320. Further study of statistical tools for forecasting in a decision-making

context. Topics include explanatory models (multiple regression), classical time series decomposition, and extrapolative techniques (exponential smoothing and Box-Jenkins procedures). In addition, methods for considering problems of intervention effects, seasonality, and co-linearity will be discussed. Students will perform extensive analyses of time series data using computer packages.

LOG OM 4322 Lean Production in Manufacturing and Service Operations (3)

Prerequisites: A minimum campus GPA of 2.0 and LOG OM 3320. Study of Lean Production philosophy and techniques in manufacturing and service operations. Topics include process analysis and continuous improvement techniques, quick set-ups, total productive maintenance, kanban scheduling, cellular production, team organization of workers, supplier relations, quality management, and the environmental aspects of production.

LOG OM 4324 Service Operations Management (3)

Prerequisites: A minimum campus GPA of 2.0 and LOG OM 3320. An examination of methods for designing and operating service delivery systems, such as in the health care, financial, transportation, hospitality, and governmental service industries. Topics include process and facility design, facility layout and location, queuing, demand forecasting and management, service quality, staffing, and personnel scheduling.

LOG OM 4326 Quality Assurance in Business (3)

Prerequisites: A minimum campus GPA of 2.0 and LOG OM 3320. A study of statistical quality control concepts and procedures applicable to management systems, administrative activities, service industries, and nonprofit organizations. Some successful quality assurance programs will be examined.

LOG OM 4330 Business Logistics Systems (3)

Prerequisites: A minimum campus GPA of 2.0 and LOG OM 3320. Analysis of business logistics systems, their design and operation. Topics include network design, facility location, transportation, vehicle routing, storage and handling, capacity planning, inventory management, and customer service.

LOG OM 4350 Management Science Methods (3)

Prerequisites: A minimum campus GPA of 2.0 and either LOG OM 3320 or MATH 3000 and STAT 1320. Applications of the theories and techniques of operations research to problems of business, government, and industry, with emphasis on the construction and utilization of quantitative decision models.

LOG OM 4354 Operations Research II (3)

Prerequisites: A minimum campus GPA of 2.0 and LOG OM 4350. Topics of special interest including mathematical programming, stochastic decision-making, digital simulation, game theory, and other selected techniques. (Formerly Mathematical Programming).

LOG OM 4381 International Logistics and Operations Management (3)

Prerequisites: A minimum campus GPA of 2.0 and LOG OM 3320. A study of business logistics and supply chain strategies involving shipments across national boundaries. Topics include the effects of international agreements and regional trading blocks on supply chain strategies; the design of global logistics networks; managerial processes and systems for international production and distribution; and risk management for international logistics.

ACCTNG 4401 Financial Accounting and Reporting III (3)

Prerequisites: MATH 1030 and ACCTNG 3402; also a minimum campus GPA of 2.0 and minimum GPA of 2.2 in all accounting courses at the 3000-level and above taken at UMSL. Accounting theory and practice related to topics such as income taxes, pensions, owner's equity, earnings per share, and the statement of cash flows. The course includes an emphasis on unstructured case problem solving skills, communication skills, and interpersonal skills.

ACCTNG 4402 Financial Accounting and Reporting IV (3)

Prerequisites: MATH 1030 and ACCTNG 3402; also a minimum campus GPA of 2.0 and minimum GPA of 2.2 in all accounting courses at the 3000-level and above taken at UMSL. Accounting theory and practice related to topics such as business combinations, consolidated financial statements, multinational operations, foreign exchange transactions, and governmental and nonprofit organizations. The course includes an emphasis on unstructured case problem solving skills, communication skills, and interpersonal skills.

ACCTNG 4405 Professional Accounting Research (3)

Prerequisites: ACCTNG 4401; also a minimum campus GPA of 2.0 and minimum GPA of 2.2 in all accounting courses at the 3000-level and above taken at UMSL. Discussion of the research tools and methods available to resolve questions concerning accounting standards and practices. Critical analysis of topics of current interest and importance in accounting practice is the focal point of the course.

ACCTNG 4435 Auditing (3)

Prerequisites: MATH 1105, ACCTNG 3402 and ACCTNG 3421 or INFSYS 3810; also a minimum campus GPA of 2.0 and minimum GPA 2.2 in all accounting courses at the 3000-level and above taken at UMSL. An introduction to auditing practice. Includes the social role of auditing and the services offered by auditors in internal, governmental, and public accounting practice. Emphasis is on the financial auditing process, including professional ethics, audit risk assessment, study and evaluation of internal control, gathering and evaluating audit evidence, and audit reporting decisions.

ACCTNG 4441 Advanced Federal Income Tax: Tax Research and Business Taxation (3)

Prerequisite: ACCTNG 3441; also a minimum campus GPA of 2.0 and minimum GPA of 2.2 in all accounting courses at the 3000-level and above taken at UMSL or graduate standing. Uses internet-based tax research service to conduct research that resolves tax law questions. Also focuses on federal income taxation of corporations, S corporations, partnerships, LLCs and their owners.

MGMT 4614 Entrepreneurship/Small Business Management (3)

Prerequisites: BUS AD 2900, FINANCE 3500, MKTG 3700, MGMT 3600, and a 2.0 campus GPA. This integrative general management course is designed to communicate the academic principles of business management applicable to solving of problems of small- and medium-size businesses and assist in their development. This course will provide a background in the forms of business, the development of business plans and systems integration, venture capital, accounting, procurement, promotion, financing, distribution and negotiations for initial organization, and operation and expansion of the firm.

MGMT 4689 International Strategic Management (3)

Prerequisites: A minimum 2.0 campus GPA and MGMT 3682, MKTG 3780 and FINANCE 3580 or consent of the instructor. A study of the international dimensions of strategic management. Provides an introduction to the key concepts and tools necessary for international competitive analysis. Topics include the international dimensions of strategy formulation and implementation, diversification, strategic alliances, and divestment.

MKTG 4700 Marketing Management (3)

Prerequisites: MATH 1105, MKTG 3700, three other marketing elective courses, senior standing, and a 2.0 campus GPA. An intensive analysis of major marketing decisions facing the firm, such as level, mix, allocation, and strategy of marketing efforts. Specific decision areas investigated include market determination, pricing, physical distribution, product policy, promotion, channel management, and buyer behavior. Competitive, political, legal, and social factors that may affect such areas of decisions are discussed. Cases, models, and problems are used heavily.

INFSYS 4850 Information Systems Design (3)

Prerequisites: A minimum campus GPA of 2.0; IN SYS 3810, INFSYS 3816, and INFSYS 3845. System design, implementation, and methods of systems installation and operation are presented. A system development project is required.

Accounting Graduate

5400 Financial and Managerial Accounting (3)

This course provides an introduction to accounting, with emphasis on preparation of financial statements for external parties (financial accounting) and accumulation of cost information to aid internal planning and control (managerial accounting). Topics covered include measurement of assets and liabilities, revenues and expenses, the accounting cycle, financial statements, cost terminology, cost behavior, product costing, and relevant costs for decision making. This course provides the necessary background for ACCTNG 5401 (Financial Reporting Analysis).

5401 Financial Reporting & Analysis (3)

Prerequisites: ACCTNG 5400 or the equivalent. This course builds on the foundations covered in ACCTNG 5400 emphasizing in-depth analysis of published financial statements. The course begins with discussion of the role of financial accounting information in capital markets and contracting, and continues with examination of a number of specific accounting issues. Students are encouraged to look behind the numbers to better understand the economics of the underlying transactions, and properly interpret what the reported numbers mean about a firm's future prospects.

5402 Professional Accounting Research (3)

Prerequisite: ACCTNG 4401. 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.

5403 Seminar in Financial Accounting (3)

Prerequisite: ACCTNG 4401. A study of current financial reporting issues. Analysis of current problems and approaches pertaining to the communication of corporate financial information to the U.S. and international investment communities.

5404 Professional Accountancy I (3)

Prerequisites: ACCTNG 5400 or equivalent. This is the first professional-level course in financial reporting. The course includes a study of the conceptual framework underlying Generally Accepted Accounting Principles (GAAP) and issues pertaining to accounting for current assets and liabilities.

5405 Professional Accountancy II (3)

Prerequisites: ACCTNG 5404 or equivalent. This is the second professional-level course in financial reporting. The course includes an in-depth study of issues pertaining to accounting for operational assets, liabilities and owners equity.

5411 Concepts in Management Accounting (3)

Prerequisites: MATH 1100 or ECON 4105 with a minimum grade of "C" and ACCTNG 5400. 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.

5412 Accounting Systems for Management Planning and Control (3)

Prerequisites: ACCTNG 5411 and LOG OM 5300, 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.

5421 Information Systems in Accounting (3)

Prerequisites: ACCTNG 5400 or equivalent. This is a professional-level course in accounting information systems. The course includes examination of transaction cycles, structured analysis and design of accounting information systems, and internal controls.

5435 Seminar in Auditing (3)

Prerequisites: ACCTNG 4435 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.

5436 Systems Auditing (3)

Prerequisites: ACCTNG 5400, INFSYS 5800, or consent of instructor. Study of techniques involved in the control and audit of computer-based accounting information systems. Emphasis on the review of internal controls at operational and administrative levels and on computer-assisted audit techniques.

5441 Tax Research (3)

Prerequisite: ACCTNG 3441 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.

5446 Advanced Topics in Taxation (3)

Prerequisites: ACCTNG 3441. Addresses advanced topics in taxation selected by the instructor.

5447 Taxation of Individuals and Businesses (3)

Prerequisites: ACCTNG 5400 or equivalent. This is the first professional-level course in taxation. The course includes a general introduction to the concepts of taxation. It will enable students to understand the role of taxes in evaluating decisions typically confronted by individual taxpayers and businesses.

5455 Taxes and Managers' Decisions (3)

Provides a framework for understanding how taxes impact decisions of both business and individual taxpayers. The framework enables the student to become an effective evaluator of the tax planning strategies being implemented at both the firm and individual level. Students also learn how to quantify the effect taxes have on any transaction in order to maximize the after-tax return on assets or minimize the after-tax cost of financing. Unlike tax law knowledge, that becomes irrelevant when laws are repealed or changed, the analytical skills developed in this course will remain relevant.

5480 International Accounting (3)

Prerequisites: ACCTNG 3402. Accounting practices for multinational businesses. Discussion of comparative financial accounting practices, the development of international accounting standards, and managerial accounting practices related to multinational operations.

5490 Graduate Internship in Accounting (1-3)

Prerequisites: Three accounting courses at 3000-level or above and consent of supervising faculty member and the area coordinator. The course requires several meetings with the faculty advisor and a graduate-level written assignment. The student's program will be monitored by a member of the Graduate Faculty in Accounting. The course will be graded on a Satisfactory/Unsatisfactory basis. A student who has previously taken ACCTNG 3490 may not take ACCTNG 5490.

5491 Seminar in Advanced Theory and Contemporary Issues in Accountancy (3)

Prerequisite: ACCTNG 5403 and LOG OM 5300. 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.

5498 Graduate Seminar in Accounting (3)

Prerequisites: Consent of instructor. Study of selected special problems in accounting. May be repeated for credit with different topics.

5499 Individual Research in Accounting (1-3)

Prerequisites: Consent of instructor and graduate director. Special individual research topics in Accounting under the guidance of a specific professor.

Business Administration Graduate

5000 Economics for Managers (3)

The first portion of this course introduces microeconomic analysis of consumers, firms, and government. The concepts and tools of economic analysis are applied to the production and distribution functions of organizations. The last portion is devoted to the macroeconomic influence of capital markets, the influence of interest rates, inflation, and the business cycle.

5001 Managerial Economic Analysis (3)

Prerequisites: BUS AD 5000 or ECON 1001 and ECON 1002. Microeconomic analysis of consumers, firms, and government. The concepts and mathematical tools of economic analysis are applied to the production and distribution functions of organizations.

5002 Analysis of National Economic Environment (3)

Prerequisites: BUS AD 5000 or ECON 1001 and ECON 1002. The character and functioning of the national economic system; analyzing and forecasting fluctuations in national income and product, employment, and prices; the influence of monetary and fiscal policies. Emphasis is on the acquisition of knowledge concerning forces affecting all business firms.

5100 Managerial Communication (3)

An analysis of business writing and speaking, and the communication conventions common in organizations. Emphasis is placed on developing skills critical to career advancement and necessary for effective organizational functioning. A second goal is to prepare students for assignments in other business courses. This course must be taken within the first 12 credit hours of study, preferably in the student's first semester.

5198 Seminar in Business Administration (3)

An intensive study of a specific area of business administration of some specific business or economic phenomenon, or a specific problem or theory. Several different courses may be offered under this course number.

5289 Internship in International Business (3)

Prerequisites: Consent of IMBA Director. Students will apply both their language skills and knowledge of international business by working in an organization located outside the student's country of origin. This course requires students to submit regular evaluations and prepare a research report summarizing their global experience and how it relates to the international business program.

5299 Individual Research (1-3)

Prerequisite: Consent of instructor and graduate director. Special individual research topics under the guidance of a specific professor.

5450 Governmental Budgeting and Financial Control (3)

Prerequisite: Completion of the MPPA Computer Proficiency Exam OR demonstrated proficiency with spreadsheets. (Same as Public Policy Administration 6180) 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.

5900 Law, Ethics, and Business (3)

Analysis of the relationship between law and business with emphasis on the ability of, and extent to which, governments regulate business activities. Topics covered include the employer-employee relationship, protection of consumers, antitrust regulation, and securities law. Also discussed are ethical issues confronting management of the modern business enterprises.

6990 Strategy Formulation and Implementation (3)

Prerequisites: FINANCE 6500, MGMT 5600, MKTG 5700, LOG OM 5320 and special consent. Graduate program capstone course examining concepts and methods that integrate functional areas of business. The perspective is that of general management charged with directing the total enterprise. Interactions between the environment, organization, strategy, policies and the implementation of plans are explored. Special emphasis is given to globalization of business and ethical perspectives. This course should be taken during the semester prior to graduation. In no case may it be taken sooner than two semesters prior to graduation.

7001 Doctoral Research (1-12)

Prerequisites: Must have Ph.D. Program Director or Area Coordinator approval. Investigation of an advanced nature culminating in preparation for comprehensive examinations and/or development of dissertation proposal. The course may be repeated.

7002 Dissertation Research (1-12)

Prerequisites: Must have Ph.D. Program Director or Area Coordinator approval. Investigation of an advanced nature culminating in the preparation of a doctoral dissertation. The course may be repeated.

7021 Qualitative Methods and Philosophical Foundations of Business Administration Research (3)

Prerequisites: Admittance into the Ph.D. Program. This course investigates the ontology and epistemology of business administration research, particularly as they pertain to qualitative research methods, such as case studies, action research, and ethnomethodology.

Finance Graduate

5599 Individual Research in Finance (1-3)

Prerequisites: Consent of instructor and graduate director.

Special individual research topics in Finance under the guidance of a specific professor.

6500 Financial Management (3)

Prerequisites: ACCTNG 5400 or ACCTNG 2400, LOG OM 5300 or LOG OM 3300, and BUS AD 5000 or ECON 1001 and ECON 1002. This course provides an in-depth analysis of corporate finance including asset pricing, risk and return, short- and long-term investment decisions, capital structure choices, dividend policy, derivatives, mergers and acquisitions, and a host of other current topics. The material is taught through lectures and problem solving.

6501 Advanced Financial Management (3)

Prerequisites: FINANCE 6500 and LOG OM 5300. Exposure to recent financial management theory through selected readings. Financial management problems are considered by the use of cases and simulation models. An original research project under the supervision of the instructor is required.

6520 Security Analysis (3)

Prerequisites: FINANCE 6500 and LOG OM 5300. An in-depth study of techniques used in evaluating various financial assets as investment opportunities. Financial assets studied include common stock, preferred stock, and fixed income securities. Other related topics such as sources of investment information and current market trends are discussed.

6521 Introduction to Derivatives (3)

Prerequisite: FINANCE 6500. 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.

6540 Capital Markets and Financial Institutions (3)

Prerequisite: FINANCE 6500. 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.

6541 Commercial Bank Management (3)

Prerequisite: FINANCE 6500. This course explores the various bank management techniques required to manage a modern commercial bank in a rapidly changing environment. Topics include asset and liability management, capital adequacy, bank holding companies, profitability, and bank market structure and regulation.

6542 Real Estate (3)

Prerequisite: FINANCE 6500. This course provides a broad introduction to real estate with a focus on legal issues, market analysis, valuation, financing, leasing and investment decisions. Classes are conducted in a standard lecture format with discussion on current topics. No prior knowledge of the industry is required.

6580 International Finance, Investment, and Commercial Relations (3)

Prerequisite: FINANCE 6500. This course provides students with a working knowledge of the international environment relating to the financial and securities markets along with the impact on corporate operations. International risk and tools to control risk are studied in a practical environment that may include cases. Individual research may be required to reinforce the topics studied in the classroom. Class discussion of current issues and related readings are encouraged.

6581 Seminar in International Investments (3)

Prerequisite: FINANCE 6500. This course covers topics related to the determination of exchange rates, international parity relations and portfolio diversification. In addition, methods for using foreign exchange derivatives are explored in their use for hedging exchange rate risk. Learning to read foreign exchange quotes and understanding the functioning of global markets is an integral part of the course material. Each student is assigned a foreign country to study throughout the semester with the completion of a comprehensive project report. A prior investments course is recommended but not required.

6590 Seminar in Finance (3)

Prerequisite: FINANCE 6500. This course incorporates a wide range of advanced topics in finance including, but not limited to, an evaluation of various financial assets as investment opportunities, trends in capital markets, derivatives and management of financial and non-financial firms.

6591 Finance Internship (1-3)

Prerequisite: Students must have completed and/or be enrolled in at least 6 credit hours of finance electives and have consent of supervising faculty member and Area Coordinator. Student work in the field of Finance where they apply the knowledge and skills learned in the classroom. Professional development and obtaining specialized work experience are the primary goals. The student's program will be monitored by a Finance faculty member with the student providing a formal report at the end of the project.

Information Systems Graduate

5800 Management Information Systems (3)

Same as PPAD 6800. This course provides an overview of the established and contemporary issues related to information systems within organizations. Topics include the practices and tools associated with topics such as the

management of IS-based investment projects, the design and implementation of IS, the alignment of IS strategy with organizational strategy, information security and privacy, and gaining a competitive advantage through IS.

5899 Individual Research in Information Systems (1-3)

Prerequisites: Consent of instructor and graduate director. Special individual research topics in Information Systems under the guidance of a specific professor.

6805 Applications of Programming for Business Solutions (3)

Prerequisite: ECON 4105. This course provides a study of business-oriented programming. A programming language will be introduced and discussed in detail. Emphasis will be on program definition and the use of such programs in business-oriented applications.

6806 Managerial Applications of Object-Oriented Technologies (3)

Prerequisite: INFSYS 6805. 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.

6808 Internet Programming for Business (3)

Prerequisite: INFSYS 6805. Focus on web-based applications development for business. It will begin with the fundamentals of web-based computing, including web client and server interaction, the MIME standard, server and client data frame headers, the CGI standard, and error conditions as they pertain to business applications. In addition, JAVA will be introduced to build web-based GUI-interfaces and back-end servers. Finally, business applications issues such as firewalls, proxy servers and data encryption using secure servers will be included.

6825 Management Information Systems: Theory and Practice (3)

Prerequisite: INFSYS 6800. The course presents and analyzes critically current MIS topics in the context of business organizations. Issues may include: organizational and behavioral concerns, the fit between information systems and organizations, information systems development and implementation, software evaluation and procurement, systems performance, and information systems planning and control.

6831 Internship in Advanced MIS Applications (3-6)

Prerequisite: INFSYS 6840 or permission of instructor. The internship will be a supervised field experience in a US-based business/organization or a US-based international business/organization. Students will be employed off-campus for a 10-16 week period on projects directed by host organization supervisors in consultation with a UM-St. Louis faculty member. The project requires students to apply MIS concepts to a real-world problem. The project

does not duplicate, but builds upon material in the MIS curriculum. A professional written report will be required. The course may not be repeated for more than six hours credit.

6832 Information Systems Strategy (3)

Prerequisite: INFSYS 6825. This course presents the management of computer-based information resources in the context of business organizations. Issues may include: management strategies and policies for improving organizational productivity, measurement, evaluation and acquisition of management information services, office automation, end-user computing, computer use in international environments, social organizational perspectives and ethical implications. The course will be taught using cases.

6833 Decision Support Systems (3)

Prerequisite: LOG OM 5300. 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.

6835 IT- Enabled Business (3)

Prerequisite: INFSYS 5800. IT-Enables Business focuses on business models, processes, and activities made possible by the internet. The course includes theoretic aspects of e-commerce: consumer relationship management, supply chain management, inventory management, business strategy, auctions, and portals. Issues associated with electronic commerce such as security, privacy, content selection and rating, intellectual property rights, authentication, encryption, acceptable use policies, and legal liabilities are explored. Particular attention is paid to IT-enabled entrepreneurship and business creation, and IT use in small to medium sized enterprises. Case studies drawn from actual business applications will be used to reinforce theory.

6836 Telecommunications: Design and Management (3)

Prerequisite: INFSYS 5800 (may be taken concurrently). The topic of telecommunications is addressed from both a technical and managerial viewpoint. In particular, the course will address issues such as communications components and services, local area network architecture, managerial implementations, organizational issues, and cost/benefit analyses.

6837 Information Systems Architecture (3)

Prerequisite: INFSYS 6836. This course explores a wide range of topics necessary for understanding & managing distributed computing technology. A wide range of infrastructure and "middleware" architectural components will be explored. Finally, the course will provide a framework for understanding the capabilities and shortcomings of various distributed computing architectures,

technical standards and their implications for interoperability of components.

6838 Business Processes Design, Management & Integration (3)

Prerequisites: INFSYS 5800. Major business processes are identified and analyzed. Issues related to characteristics, goals, benefits and costs of enterprise-wide design, and the role of information technology during the design process are discussed. Workflow automation, process modeling, analysis, automation, and redesign techniques are discussed, including the following: process inputs & entrance criteria, process outputs and exit criteria, feedback mechanisms & process correction, alternate theoretical frames for business process design, and impacts on business process design from socio-cultural forces. Case studies are used to illustrate the concepts.

6840 Information Systems Analysis (3)

Prerequisite: INFSYS 6805. The theory and practice of structured analysis are presented. Topics may include: traditional vs. structured analysis methods, requirements analysis, user/analyst interaction, investigation of existing systems, human/ machine interfaces, CASE tools, and workbenches.

6845 Database Management Systems (3)

Prerequisite: INFSYS 5800. The course introduces the concepts of database management systems for business applications. Issues in database architecture, design, administration, and implementation are covered. Projects are assigned on a mainframe DBMS and a microcomputer-based DBMS to illustrate the concepts and applications.

6846 Management of Global Sourcing (3)

Prerequisite: INFSYS 5800. Largely fostered by the spread of the Internet, global software development standards, global software packages, and fewer trade restrictions, organizations now regularly source software development, software maintenance, systems upgrades, platform transitions, help desks, and other IS-related work globally. This course covers topics to help organizations manage global sourcing of IS work, including sourcing strategies, sourcing models (captive, joint venture, outsourcing), role of program management offices, supplier selection, engagement models, and special practices required to manage globally dispersed teams. Risk mitigation practices associated with cultural, legal, political, infrastructure, logistical, and human resource issues are also addressed.

6847 Financial and Project Management (3)

Prerequisite: INFSYS 5800. Effective project management ensures that a project is completed on time, within budget, and has high quality. The purpose of this class is to examine the task of project resource management with a focus on IT and services. It will cover conventional aspects of project management, such as the project evaluation, planning, roles, responsibilities, scheduling, and tracking. In addition, this class will examine risk management, change management,

critical chain management, build vs. buy analysis, package vs custom solutions, vendor qualification and selection, and the roles of certification in the process. The class will also cover the management of programs or a portfolio of IT projects.

6848 Knowledge Management and Business Intelligence (3)

Prerequisite: INFSYS 5800. Knowledge management (KM) is the process of creating, and drawing value from, an organization's intellectual assets. It deals with how to best leverage the organization's knowledge internally as well as externally. The emphasis on knowledge management within business organizations has risen dramatically in the last few years, to some extent as a result of the rapid progress in information technology capabilities. The course covers the following topics: KM tools, technologies, and systems, including knowledge repositories, knowledge portals, and expert seeker systems, creating and sustaining a knowledge-sharing culture, managing and measuring intellectual capital, managing knowledge in networked organizations, including interorganizational alliances and supply chains, aligning knowledge with business strategy, risks of knowledge loss and knowledge leakage, business intelligence, and social aspects of knowledge management

6850 Information Systems Design (3)

Prerequisites: INFSYS 6840 and INFSYS 6845. This course builds upon the analysis techniques presented in INFSYS 6840. It requires the student, usually working in a group, to design and implement a system in a real-world environment. Advanced design concepts are presented to support the students in their project work

6881 Management of Transnational Information Systems (3)

Prerequisites: INFSYS 5800 (may be taken concurrently). The course presents concepts of managing global information technology. Issues covered include: global information technology, systems development, electronic data interchange, cross-border data flows, and national and international information structures. Further topics may include information technology enabled economic development, global outsourcing of information systems services, and social, organizational and ethical implications.

6891 Seminar in Management Information Systems (3)

Prerequisite: INFSYS 5800. Topics of current interest in management information systems. Topics may include international information systems, electronic commerce, decision support systems, information systems strategy, telecommunications, and information systems management

6892 Seminar in Current Management Information System Topics (3)

Prerequisite: INFSYS 5800. Advanced topics of current interest in management information systems. Content to be determined each time the course is offered. May be repeated for credit.

7890 IS Research Seminar (3)

Prerequisites: INFSYS 5800; Admittance into the Ph.D. Program. Analysis of the research problems, approaches, and findings of Management Information Systems Research. May be repeated for credit when the subject matter is different.

7891 Quantitative Research Methods in IS (3)

Prerequisites: INFSYS 5800; Admittance into the Ph.D. Program. Analysis of research design and validity of quantitative methods applied to the study of Management Information Systems, including laboratory experiments, sample surveys, and field experiments.

7892 Doctoral Seminar in Current Information Systems Topics (3)

Prerequisites: INFSYS 5800; Admittance into the Ph. D. Program. Theoretical and empirical analysis of topics of long-term importance to the IS field such as systems analysis and design, systems development and implementation, and database management. A historical perspective of the technical and behavioral issues associated to IS artifacts is provided such that contemporary issues and trends can be appreciated.

7893 Special Topics in IS (3)

Prerequisites: Consent of instructor; Admittance into the Ph.D. Program. In-depth analysis of special topics in IS research. May be repeated for credit when the subject matter is different.

7894 Theoretical Foundations of Information Systems Research (3)

Prerequisites: INFSYS 5800, Admittance to the Ph.D. Program. The theoretical foundations of information systems are largely built upon the theories from other disciplines, including the physical sciences, computer science, sociology, psychology, and mathematics. In this course, we survey a variety of theoretical foundations from other disciplines by reading the original works, critical responses to these theories, and representative applications of these theories in the IS domain.

Logistics and Operations Management Graduate

5300 Statistical Analysis for Management Decisions (3)

Prerequisites: INFSYS 5800 (may be taken concurrently) and Econ 4105 with a minimum grade of a C. The role of statistical evidence in the formation of inference and in the selection of strategies in solving business problems is developed. Probability and probability distributions are studied as a basis of statistical inference. An introduction to multivariate analysis is provided, which includes analysis of variance and regression methods.

5312 Advanced Statistical Methods for Management Decisions (3)

Prerequisite: LOG OM 5300. The application of statistical methods to managerial problems, forecasting and business research. Topics include the blending of multiple regression and analysis of variance into a general linear model, logistic models, techniques for projecting seasonal time series, and forecasting techniques (ARIMA models) which deal with serially correlated data. Through class presentations, assigned exercises and a major project, students gain experience in constructing explanatory and predictive models for problems in marketing, finance, etc. Students use commercial software (e.g., the Statistical Analysis System) for analyzing data, constructing, models and producing reports.

5320 Production and Operations Management (3)

Prerequisite: LOG OM 5300. This course discusses issues related to the creation and delivery of goods and services. Topics include the design of production processes, the layout and location of facilities, forecasting, scheduling, inventory control, queuing, materials planning, and quality control. Analytical techniques such as linear programming are used in studying these problems.

5322 Lean Production (3)

Prerequisite: LOG OM 5320. Study of lean production philosophy and techniques in manufacturing and service operations. Topics include process analysis and continuous improvement, set-up reduction, total productive maintenance, kanban scheduling, cellular production, work teams, supplier relations, quality management, and the environmental aspects of production. Cases and a course project will be used to integrate and apply the course material.

5324 Service Operations Management (3)

Prerequisite: LOG OM 5320. An examination of methods for designing and operating service delivery systems, such as in the health care, financial transportation, hospitality, and governmental services industries. Topics include process and facility design, facility layout and location, queuing, demand forecasting and management, service quality, staffing, and personal scheduling.

5326 Quality Management (3)

Prerequisite: LOG OM 5300 or STAT 4200 or consent of instructor. Same as MATH 5370. 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.

5334 Internship in Logistics and Supply Chain Management (1)

Prerequisite: Consent of instructor. Students receive practical experience in the area of logistics or supply chain management. The internship is supervised by a professional in the host organization in consultation with a faculty member.

5354 Simulation for Managerial Decision Making (3)

Prerequisite: LOG OM 5320. Introduction to simulation as a managerial decision-making aid. Application of simulation to a number of management science-oriented problems. The course introduces and requires use of a simulation language.

5381 International Logistics and Operations Management (3)

Prerequisite: LOG OM 5320. A study of international logistics and operations management strategy, planning and operations. Topics may include multinational logistics and supply chain strategies, global network design and sourcing, international transportation, distribution and operations, import-export, risk management, etc.

5399 Individual Research in Logistics and Operations Management (1-3)

Prerequisites: Consent of instructor and graduate director. Special individual research topics in Logistics and Operations Management under the guidance of a specific professor.

6330 Business Logistics Systems (3)

Prerequisite: LOG OM 5320 may be taken concurrently. Analysis of business logistics systems and their role in supply chain management. Covers both design and operation of logistics systems and their components. Topics may include network design, facility location, transportation, vehicle routing, inventory management, customer service, reverse logistics and logistics information systems.

6331 Logistics and Supply Chain Operational Modeling (3)

Prerequisites: LOG OM 5320 and LOG OM 6330. A study of the application of leading software packages to modeling problems and issues arising in the operational management of logistics and supply chains. This course covers the economic tradeoffs involved in such decisions, data requirements, operating parameters, and application of software packages to problems such as vehicle routing and scheduling, freight shipments consolidations, cross-docking, and other operational and tactical strategies. This "hands on" course is designed to prepare students for higher-level supply chain analyses and consulting work.

6332 Logistics and Supply Chain Strategic Modeling (3)

Prerequisites: LOG OM 5320 and LOG OM 6330. A study of the application of leading software packages to modeling problems and issues arising in the planning and strategic management of logistics networks and supply

chains. The course identifies and explores the economic and customer service tradeoffs involved in such networks. Issues such as location of facilities, assignment of production and distribution missions to facilities, identification of sourcing relationships amongst facilities, and identification of cost and customer service consequences of alternative supply chain designs are addressed by the application of commercial software packages to support decision making. This "hands on" course is designed to prepare students for high-level supply chain and analyses and consulting work.

6340 Experimental and Survey Design and Analysis (3)

Prerequisite: LOG OM 7310. This course covers the linear model and analysis of variance, including survey design, validity and reliability, design of experiments and applied regression methods. Topics may include analysis of covariance, multiple comparison procedures, cluster analysis and factorial experiment designs.

6350 Management Science Methods (3)

Prerequisite: LOG OM 5320. This course provides a working knowledge of management science techniques. It emphasizes analytical approaches to solving business problems, construction of mathematical models, and manipulation of model variables for managerial decision-making. Topics include mathematical programming, including integer and network models, heuristics, and simulation models.

6395 Seminar in Logistics and Operations Management (3)

Prerequisite: LOG OM 5320. Topics of current interest in logistics and operations management. Topics may include just-in-time and lean production, quality management, manufacturing and service systems, transportation and logistics, quantitative management tools, etc.

Management Graduate

5600 Organizational Behavior and Administrative Processes (3)

Same as PPAD 6600. The theoretical and research contribution of the behavioral sciences to management and administration are examined and applied to selected organizational situations. Areas to be considered from the standpoint of both individual and organizational performance are communication, motivation, conflict, decision-making, goal setting, leadership, organizational design, climate, development, and control. Utilizing a systems perspective, the course attempts to develop in each student an ability to analyze and solve organizational problems.

5611 Advanced Organizational Behavior and Administrative Processes (3)

Prerequisite: MGMT 5600. An in-depth examination of selected organizational and individual theories affecting behavior and operating performance. Organizational structure and design, formal and informal organization,

decision making, communications, and motivation are analyzed for their organizational impact. The course seeks to develop further the ability to analyze and evaluate organizational processes and individual behavior.

5612 Negotiating Workplace Conflict (3)

Prerequisites: PPAD/MGMT 6600, and Graduate Standing Same as Public Policy Administration & Sociology 5451. Examines conflict and cooperation between individuals, groups, and organizations over the control of work. A central theme is how this conflict is expressed, controlled and resolved. Students will participate in exercises to learn the basics of two-party negotiations.

5614 Managing Organizational Change and Design (3)

Prerequisite: BUS AD 5600 may be taken concurrently. This course examines the ways to manage organizational change to meet the rapid pace of change in the business environment. Cases and current research inform class discussions of different types of restructuring. Topics may include creating learning organizations, designing for innovation, managing growth and downsizing, and building sustainable organizations.

5621 Managing Human Resources (3)

Prerequisite: MGMT 5600. In-depth examination of selected human resource management issues from a contemporary manager's viewpoint. Topics examined include: personnel planning; employee selection; performance appraisal, training, and development; compensation; legal issues; discipline; and labor relations. The course examines these topics as they relate primarily to operational activities in organizations.

5622 Union-Management Relations and Collective Bargaining (3)

Prerequisites: MGMT 5600 and BUS AD 5900. Primary concern is with the setting and the dynamics of contract negotiation and administration. Emphasis is on the development of insight and understanding of the forces affecting the decisions of the parties to a labor contract within the context of the social, political, and economic environment of the organization. A dynamic approach is taken to examine difficulties that arise in attempting to administer a collectively established relationship between employer and employee.

5624 Organizational Training (3)

Prerequisite: MGMT 5600 or MGMT 5621 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.

5625 Selected Topics in Human Resource Management (3)

Prerequisites: MGMT 5621 and LOG OM 5300. This course provides an advanced treatment of selected human resource management topics. Primary focus is on topics such as job analysis, pre-employment screening devices, test validation, and civil rights laws. Other topics, such as performance appraisal, recruitment, promotions, and terminations may be covered. Various class projects may be assigned to supplement readings, lectures, and discussion.

5626 Leadership Through People Skills (3)

Prerequisite: MGMT 5600 (or permission). This seminar will help students learn leadership strategies and develop skill sets that will allow them to: (1) Adapt to different people in appropriate and productive ways; (2) Gain commitment from others through the use of effective people skills; and (3) Develop an awareness of their own current style of management and clearly see its impact on their staff and peers. Students will spend approximately 75 percent of their time "learning by doing" as they engage in and receive feedback on skills practices and role-plays. The seminar culminates with students planning and practicing a "real-life" interaction they will face on the job, thus creating a strong transfer of skills and learning from the seminar back to the workplace.

5689 International Business Strategies (3)

Prerequisites: BUS AD 5000 and ACCTNG 5400. This course focuses on those managerial issues, which follow from the definition and implementation of corporate strategy for worldwide operations, as distinguished from purely domestic firms or those only marginally involved in international activities. It aims to develop an appreciation for the unique competitive, sociocultural and political environments in which international business takes place and the skills required to deal with these changes.

5695 Seminar in Management (3)

Prerequisite: MGMT 5600. Topics of current interest in management. Possible topics include, human resource management, international management, and entrepreneurship.

5699 Individual Research in Management (1-3)

Prerequisites: Consent of instructor and graduate director. Special individual research topics in Management under the guidance of a specific professor.

Marketing Graduate

5700 Contemporary Marketing Concepts (3)

Prerequisite: BUS AD 5000. Designed for students with no prior course work in the field of marketing. A wide spectrum of marketing institutions and activities is covered. The impact of marketing on the total firm, the economy, and society in general is assessed. The course is intended to develop and organize the fundamental marketing concepts necessary to an analytical study of consumer behavior, the

economic environment, and four managerial aspects of marketing. The acquisition and utilization of marketing research data for problem solving is stressed. Relation and integration of basic marketing knowledge to the successful development of sound marketing policy, planning, and strategy is developed.

5701 Marketing Planning and Strategy (3)

Prerequisite: MKTG 5700. Emphasizes the development of a total marketing program through an analytical study of the marketing-mix, the diagnosis of the business situation, along with the influence of exogenous variables and the development of an effective campus marketing strategy. Stresses importance of an integrated marketing plan and utilizes modern decision-making tools. Supplementary readings, journal articles, and current periodicals are used to place the theoretical framework of the course into the contemporary environment of the market place.

5710 Consumer Motivation and Behavior (3)

Prerequisite: MKTG 5700. An analysis of the socio-psychological foundations of consumer behavior including personality differences, needs and wants, status symbols, social change and mobility, and fads and fashions. Consumer spending and saving habits, product preferences, leisure-time patterns, shopping behavior, and motivation research also are examined for their impact on advertising, selling, and marketing management.

5720 Marketing Communications (3)

Prerequisite: MKTG 5700. Deals with managerial decision making by placing particular emphasis on assimilating and integrating all forms of marketing communication in the development of promotional policies, plans, and procedures. Course approach is analytical rather than descriptive in investigating the areas of advertising, public relations, sales management, packaging, and other forms of demand stimulation.

5740 Marketing and Business Research (3)

Prerequisites: MKTG 5700 and LOG OM 5300. A broad approach to marketing research as a model for acquiring, retrieving, and analyzing decision-making information. Includes market measurement, evaluation of sales, and cost effectiveness, sales forecasting, and primary marketing research studies aimed at solving specific problems. Emphasis is placed also on building a theoretical and analytical framework to provide flexibility in the design of marketing experiments and in judging recent research innovations.

5761 Business to Business Marketing (3)

Prerequisite: Graduate standing or consent of instructor. This course provides graduate students with an understanding of the role of business to business marketing as it pertains to business, government, and institutional customers. The course places a heavy emphasis on buyer-seller interaction embodying business to business marketing. In addition to discussing the standard theories and covering the subject

domain of business marketing, the course focuses on the finer aspects of business to business marketing negotiations using exercises and readings. Student groups enact complex industrial buyer-seller negotiations striving to achieve their respective organizational goals.

5770 Supply Chain Management (3)

Prerequisite: Consent of instructor. This course addresses supply chain management and its implications, with a focus on what firms can do to maintain competitiveness in the quickly changing business landscape. Topics may include, but are not limited to, value chain analyses, marketing business-to-business, supply chain analytics, procurement, production, logistics, and inventory management within supply chains.

5775 Domestic Transportation (3)

Prerequisite: Graduate standing or consent of instructor. Domestic Transportation is the study of North American transportation modes, their management and operating characteristics. This graduate course is part of the Mid-West Transportation Consortium where UMSL, along with 5 other Universities, provides guest lecturers that comment on aspects of transportation. UMSL students concentrate on the business aspects of transportation.

5780 Seminar in International Marketing (3)

Prerequisite: MKTG 5700. An advanced seminar on topics in international or global marketing. Possible topics include the globalization of trade, export marketing, international market opportunity analysis, and negotiation for international marketers. Students who take one version of this course (e.g. globalization of trade) can take a second version of the course (e.g. negotiation for international marketers) with prior permission.

5795 Seminar in Marketing (3)

Prerequisite: MKTG 5700. This course addresses advanced problems in contemporary marketing. Topics may include, but are not limited to, marketing strategy, marketing communications and advertising, product management, consumer behavior, channels of distribution, international marketing, and marketing research.

5799 Individual Research in Marketing (1-3)

Prerequisites: Consent of instructor and graduate director. Special individual research topics in Marketing under the guidance of a specific professor.

College of Education

Accreditation

The University of Missouri-St. Louis, through the College of Education, is accredited by the National Council for Accreditation of Teacher Education (NCATE) and the Missouri Department of Elementary and Secondary Education (DESE) for the preparation of early childhood, elementary, special education, physical education, secondary school teachers and school service personnel.

Course Designations in the College of Education

The following abbreviations are used to indicate instructional areas in the course listings and descriptions in the College of Education.

Adult Education Courses (**ADULT ED**)
Counselor Education Courses (**CNS ED**)
Early Childhood Education Courses (**ECH ED**)
Educational Administration Courses (**ED ADM**)
Educational Foundations Courses (**ED FND**)
Educational Psychology Courses (**ED PSY**)
Educational Research and Evaluation Methods Courses (**ED REM**)
Educational Technology Courses (**ED TECH**)
Elementary Education Courses (**ELE ED**)
Middle Education Courses (**MID ED**)
Higher Education Courses (**HIGHER ED**)
Physical Education Courses (**PHY ED**)
College Wide Education Courses (**EDUC**)
Secondary Education Courses (**SEC ED**)
Special Education Courses (**SPEC ED**)
Teacher Education Courses (**TCH ED**)

Teacher Education

Degrees and Areas of Concentration

The College of Education offers certification programs 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 language arts, mathematics, science and social studies. K-12 certification is available for music, art, foreign language and health. In cooperation with other schools and colleges of the university, the College of Education provides a program for students pursuing other degrees and also planning for a teaching career in secondary education.

The certification programs are designed for graduates to attain the following program outcomes:

- Understand the central concepts, tools of inquiry and structures of the discipline(s) within the context of a global society and creates learning experiences

that make these aspects of subject matter meaningful for students.

- Understand how students learn and develop, and provides learning opportunities that support the intellectual, social, and personal development of all students.
- Understand how students differ in their approaches to learning and creates instructional opportunities that are adapted to diverse learners.
- Recognize the importance of long-range planning curriculum development and develops, implements and evaluates curriculum based upon student, district, and state performance standards.
- Use a variety of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation.
- Model effective verbal, nonverbal, and media communications techniques to foster active inquiry, collaboration, and supportive interaction in the classroom.
- Understand and use formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social, and physical development of the learner.
- Develop skills to become a reflective practitioner who continually assesses the effects of choices and actions on others. This reflective practitioner actively seeks out opportunities to grow professionally and utilizes the assessment and professional growth to generate more learning for students.
- Foster relationships with school colleagues, parents, and educational partners in the larger community to support student learning and well-being.
- Understand theories and applications of technology in educational settings and has adequate technological skills to create meaningful learning opportunities for all students.

General Education Requirements

Students in the College of Education must meet university and departmental general education requirements specified for their degrees.

Academic Residence

Students must be in residence for 30 of the last 30 semester hours of credit. Courses graded on a satisfactory/unsatisfactory basis are not accepted within these last 30 semester credit hours. This residency requirement applies to students seeking a degree or teacher certification.

Education Majors

Professional education courses must be completed with a grade point average of 2.5 and no grade lower than a C (2.0). A C- grade is not acceptable.

Admission to the College of Education

Any students who designate education degree programs as their intended degree paths will have Education as their assigned academic unit. Students admitted to the College of Education and also desiring teacher certification must also be admitted to the Teacher Education Program.

Application and Admission to the Teacher Education Program

All students (pre- and post-degree) who wish to become teachers must be admitted separately to the Teacher Education Program regardless of the program in which they are enrolled. Applications to the Teacher Education Program are processed through the Teacher Certification and Advising Office (TC & A). Eligibility is based upon fulfillment of the following requirements:

- Submission of qualifying scores on C-BASE in areas of English, writing, mathematics, science and social studies, as mandated by the Missouri Excellence in Education Act of 1985. Students should consult the Teacher Certification & Advising Office – College of Education, for test descriptions, cost, required scores, dates of administration, retest policies, etc. Acceptable C-BASE scores are required in addition to documented ACT or SAT scores. (Students who have an earned bachelor's degree are not required to pass the C-BASE test. Graduates of the general studies program at University of Missouri-St. Louis, however, must take the C-BASE).
- Documented scores of either the ACT Composite or the SAT (verbal plus math)*.
- Completion of 60 hours of college or university courses (at University of Missouri-St. Louis or another accredited school).
- A grade point average of 2.5 or higher.
- Completion of level one courses, or the equivalent, with a grade of C or better.
- Approved results of a criminal record check and child abuse/neglect screening.

General Information

It is important that students meet with an academic advisor in the Teacher Certification and Advising Office once each semester. Students should contact the office at 314-516-5937 or at Pamela@umsl.edu to make an advising appointment.

Professional Internship Semester

Students in the early childhood, elementary, special education, middle school and secondary certification programs participate in a three-credit-hour Professional Internship, taken the semester prior to student teaching. Education students attend a school one day per week throughout the semester. Students apply to the internship and student teaching with the same application, and submit it two semesters before the Internship. The student continues at

the same school for student teaching but will attend fulltime every day.

Application to Student Teaching

The application for student teaching is a two-part process that begins two semesters prior to student teaching.

Deadlines for the Formal Application

Fall Student Teaching: First week of December of the previous year

Winter Student Teaching: First week of May of the previous year

*Check 'My Gateway' and the student teaching bulletin board in Marillac Hall for exact date and the [College of Education Teacher Certification and Advising Home Page](#).

Upon receipt, formal applications for both pre- and post degree students are checked to ensure they have met the following requirements:

- Full admission to the teacher education program for both pre- and post degree students.
- A cumulative grade point average of 2.5 or above by the semester before 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.
- Grade point average of 2.5 in the teaching field (secondary education students only).
- A grade of C or better in all professional education courses so designated. Lists of these courses available in the TC & A office and from advisers. A grade of C- is not acceptable.
- Completion of TB screening, police, and child abuse checks.

The student teaching experience in the early childhood, music, physical education, and special education certification programs provides opportunities in a variety of settings. Students will be expected to do student teaching on a full-day basis for 14-weeks during an entire semester. The student teaching experience must be completed in residence. Secondary student teaching in science education, mathematics education, and foreign language education is offered during the winter semester only.

Policies regarding withdrawal or removal from student teaching are found in the appropriate student teaching handbook. These are found in the online student teaching application on the College webpage.

For further information regarding certification, contact the Teaching Certification and Advising Office (TC & A) at 155 Marillac Hall or the [College of Education Teacher Certification and Advising Home Page](#).

Application for Degree and/or Certificate

Bachelor of Science in Education (B.S. Ed.)

Candidates for the B.S.Ed. degree must complete degree and certificate application forms in the TC & A Office when they apply for admission to internship/student teaching or during the semester before the one in which they expect to finish degree requirements. See information below on the on PRAXIS examination.

The College of Education requires a background check, current within one year, for every UMSL student in the teacher education program. Please note that students wishing to be certified will still be responsible for a more thorough, fingerprint background check as required by Missouri State Law before a certification will be issued. All background check information will be available to students upon their request.

Bachelor of Educational Studies (B.E.S)

Candidates should consult the TC & A Office, 155 Marillac Hall or (314) 516-5937 for more information. This degree offers three areas of study: Early Childhood, Exercise Science and Professional Studies.

Bachelor of Arts (B.A.)

Students seeking the B.A. degree with teacher certification must complete a state certification form with the TC & A. See note below on the on PRAXIS examination.

Certification

In cooperation with the Missouri State Department of Elementary and Secondary Education, the College of Education is responsible for recommending all qualified students for state teacher certification.

All individuals must pass the appropriate Praxis/National Teacher's Examination to meet graduation and/or certification requirements. This exam should be taken during the semester immediately prior to student teaching.

Students may earn teacher certification in the fields of elementary education, early childhood education, middle school, music education, physical education special education (cross categorical), art education, as well as the secondary education areas of biology, chemistry, English, foreign languages (French, German, Spanish), mathematics, physics, social studies, and speech/theater. Graduate programs leading to certification are also offered in counseling, reading, school administration (elementary and secondary principal, school superintendent), and special education.

Graduate Level Certification Program

Applicants who hold a Bachelor's degree in a teaching field can work toward secondary education certification by taking but not limited to 18 credit hours of coursework and student teaching within a minimum of one calendar year. Coursework includes:

TCH ED 5310: Designing Instruction, 3 credits (includes 14 clock hours of field experience)
TCH ED 5311: Educational Foundations, 4 credits (includes 10 clock hours of field experience)
ED PSY 6109: Learning and Development in Secondary School Settings, 4 credits (includes 8 clock hours of field experience)
*TCH ED 5312: Differentiated Instruction, 4 credit hours (includes 12 clock hours of field experience)
SEC ED 4989: Secondary Education Professional Internship, 3 credits (includes 84 clock hours of field experience)
SEC ED 4990: Student Teaching, 12 credits (full days in a school for one semester)

Students seeking certification via this program must meet with advisors in the College of Education Graduate Education Office, Teacher Certification and Advising Office and secondary education faculty members in the content (teaching) area to plan specific programs and review requirements. Any hours in addition to the above necessary to meet state teacher certification requirements will be determined.

*This course, pending formal approval, could be substituted with an equivalent course. See the Graduate Office, secondary faculty or Teacher Certification and Advising Office for more information.

Graduate Studies in Education

Degrees and Areas of Emphasis

The College of Education offers Master of Education (M.Ed.), Educational Specialist (Ed. S.), and doctoral degrees at the graduate level. The M.Ed. degrees and the emphasis areas are:

- Adult and Higher Education
 - * Adult Education emphasis
 - * Higher Education emphasis
- Counseling
 - * Elementary School Counseling emphasis
 - * Secondary School Counseling emphasis
 - * Community Counseling emphasis
- Educational Administration
 - * Community Education emphasis
 - * Elementary Administration emphasis
 - * Secondary Administration emphasis
- Elementary Education
 - * Early Childhood Education emphasis
 - * General emphasis
 - * Reading emphasis
- Secondary Education
 - *Curriculum and Instruction emphasis
 - * General emphasis
 - * Reading emphasis
 - * Teaching English to Speakers of Other Languages
- Special Education
 - * General emphasis

* Early Childhood/Special Education emphasis

Courses are available for areas of specialization within the M.Ed. programs, including educational technology, physical education, educational psychology, and the various secondary school subject areas.

Ed. S. degree programs are available in school psychology and educational administration.

Programs leading to the Ed. D. degree are offered in four broad interdisciplinary emphasis areas: Educational Administration; Adult & Higher Education; Teaching-Learning Processes; and Counselor Education. Programs leading to the Ph.D. degree are offered in the areas of Counseling, Educational Psychology, Teaching-Learning Processes, and Educational Leadership and Policy Studies.

Master of Education Degree

The Masters of Education Degree programs are designed for graduates to attain the following outcomes:

- Understand the major theories in the discipline of study
- Attain a solid foundation in the overall field of education in general, including areas of social justice, educational leadership and advocacy, educational psychology and research
- Attain a depth of knowledge in the primary discipline
- Think critically
- Develop skills as a reflective practitioner to be able to create and sustain change
- Conduct teacher research

Admission and General Requirements

The College of Education follows Graduate School policies relating to admissions, academic standards, residency, transfer credit, time limitations, and thesis options (see Graduate Study in this *Bulletin*). In addition to meeting the general requirements of the Graduate School, applicants for school or community counseling must complete a separate application (see graduate studies in the Counseling division in this *Bulletin*). The minimum number of hours required for the M.Ed. degree is 32 or 33 except that the elementary, secondary, and community counseling emphases require 48 hours. The school has adopted a flexible policy on exit requirements, which are determined divisionally.

Advisement and Program Planning

Upon acceptance, each student can contact the Office of Graduate Education for an appointment with the graduate advisor for a first semester course of study (314) 516-5483 or NAshford@umsl.edu, except that those also seeking teacher certification should instead call (314) 516-5791 or e-mail OsmanOztgurt@umsl.edu. After acceptance, each student completes an adviser form, sent by the College of Education's Office of Graduate Education, 123 SCCB. A

faculty adviser is then appointed who counsels the student in registration and program planning. A program for master's degree form must be submitted for approval during the first half of the student's program. This form includes all course work in the program and the exit requirement. Once approved, the degree program may be changed only by petition.

Students working toward teacher and/or school service personnel certification as graduate students should complete state certification forms in the Teacher Certification and Advising Office, 155 Marillac Hall, one year before those requirements will be completed.

Educational Specialist Degree

The Ed.S. degree is intended for school personnel preparing for a specific role, either that of a school psychologist or that of a school building or district administrator. The programs require 60 hours of post-baccalaureate course work designed to meet the respective Missouri certification requirements. The Ed. S. in School Psychology degree program requires three years of intensive, full-time training, but students may be able to complete up to half of the curriculum as a part-time student. The Ed. S. in Educational Administration can be pursued on a part time or a full time basis.

The Educational Specialist Degree program is designed for graduates to attain the following program outcomes:

- Expand their knowledge of the major theories in their area of specialty
- Attain a solid foundation in the field of education in general and a depth of knowledge in the specialty
- Think critically
- Develop skills to become a reflective practitioner
- Mentor teachers and other practitioners as a specialist in a specific area
- Understand research methods in education
- Conduct research
- Demonstrate leadership skills and attributes

Admission and General Requirements

The College of Education follows Graduate School policies relating to admissions, academic standards, residency, transfer credit, time limitations, and exit requirements. Specific materials required for application vary by program, but generally applicants should submit an application to The Graduate School, transcripts of previous college work, GRE scores, and letters of recommendation.

Advisement and Program Planning

For advising and program planning, school psychology students should contact the Division of Educational Psychology, Research and Evaluation, 402 Marillac Hall, 314-516-5783. Educational administration students should contact the Division of Educational Leadership and Policy Studies, 269 Marillac Hall, 314-516-5944.

Doctor of Education Degree

The Ed. D. degree is designed primarily for the field practitioner and prepares professional leaders who are competent in identifying and solving complex problems in education. Four emphasis areas embrace general categories of professional activities: Educational Administration; Adult and Higher Education; Teaching-Learning Processes; and Counselor Education. The Educational Administration emphasis permits students to address requirements for Career Continuous Administrator Certification with the state department of education.

The Ed. D. program is designed for graduates to attain the following program outcomes:

- Understand the major theories in their primary and secondary disciplines
- Attain a solid foundation in the field of education in general and a depth of knowledge in the primary discipline
- Think critically
- Locate literature in the primary and secondary disciplines
- Understand research methods in education
- Conduct research
- Demonstrate leadership skills and attributes

Students seeking the Ed. D. degree are expected to meet the Graduate School's doctoral degree requirements and procedures.

Admission and General Requirements

In addition to meeting the application and admissions requirements of the Graduate School, students must submit three letters of recommendation (two letters must be from individuals with an earned doctorate, preferably prior instructors), along with a professional resume. Because enrollment is competitive, admission standards are comparatively high. Successful candidates must exhibit significantly above-average academic records and GRE scores. In exceptional cases, other criteria may outweigh these customary indicators of probable academic success.

At least two years of teaching or other school service experiences are required for admission. Exceptions may be made by substituting a supervised internship during the first year of the program.

Admission Application

To ensure time for review and decision, applicants must complete the Graduate School's and program applications and submit accompanying materials in a timely manner. In addition, applicants are urged to request transcripts and letters or recommendation two weeks before completing the online application. Consideration of applications cannot be undertaken until all materials are available.

Degree Requirements

1. Foundations, 12 hours from: philosophical, historical, psychological, sociological, anthropological, and comparative foundations of education, as well as curriculum, instruction and supervision.

2. Research Methods, 12-15 hours:

Students in the Educational Administration, Adult and Higher Education, and Teaching-Learning Processes options should complete the following or equivalent in order:

ED REM 6735: Statistical Analysis for Educational Research (pre-requisite)

ED REM 6750: Advanced Research Design in Education

Plus any two methods courses from the following:

ED REM 7771: Quantitative Research Methods I

ED REM 7772: Quantitative Research methods II

ED REM 7781: Qualitative Methods in Educational Research I

ED REM 7782: Qualitative Methods in Educational Research II

This sequence totals 12 hours of methods courses. Any remaining required hours could be completed with other ED REM courses numbered 6000 or higher or research courses in another curriculum.

Students in the Counselor Education option should complete the following sequence:

ED REM 6710: Educational Research Methods and Design

ED REM 7771: Quantitative Research Methods I

ED REM 7781: Qualitative Research Methods I

Plus any one method course from the following:

ED REM 7772: Quantitative Research Methods II

ED REM 7782: Qualitative Methods in Educational Research II

3. Common doctoral seminars, 6 hours

EDUC 7050, The Research Process I: Framing Research Questions within the Education Literature

EDUC 7950, The Research Process II: Developing and Refining Education Research Proposals

4. Major Specialization, 21-39 hours:

Educational Administration Option

Educational Administration (ED ADM) or other courses selected in consultation with the advisory committee, including internship (3-9 hours)

Adult and Higher Education Option

Adult Education (ADU ED) or Higher Education (HIGHER ED) or other courses selected in consultation with the advisory committee, including internship (3-9 hours)

Teaching-Learning Processes Option

Teacher Education (TCH ED) courses or courses in education in a teaching field, including courses on curriculum construction and the design and improvement of instruction, all selected in consultation with the advisory committee, including internship (3-9 hours)

Counselor Education Option

Counseling Education (CNS ED) or other courses selected in consultation with the advisory committee, including internship (3-9 hours)

5. Minor Specialization, 12-18 hours

A secondary area of expertise identified in consultation with the advisory committee

6. Dissertation, 12 hours

Total: minimum 90 hours, 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. Four emphases are available:

- Teaching-learning processes
- Educational leadership and policy studies
- Educational psychology
- Counseling

The Ph.D. program is designed for graduates to attain the following program outcomes:

- Understand the major theories in their primary and secondary disciplines
- Attain a breadth of knowledge in education in general and a depth of knowledge in the primary discipline
- Think critically
- Locate literature in the primary and secondary disciplines
- Understand research methods in education
- Conduct research
- Demonstrate leadership skills and attributes

Admission and General Requirements

In addition to meeting the application and admissions requirements of the Graduate School, students must submit:

- Three letters of recommendation (at least two from individuals with earned doctorates, preferably prior instructors).
- An original essay.
- A professional resume.
- Evidence of above-average academic records.
- GRE scores

Admission is competitive, and a favorable vote of an admission interview committee, composed of faculty in the emphasis area, is required.

Admission Application

To ensure time for review and decision, applicants must complete the Graduate School's and program applications and submit accompanying materials in a timely manner. In addition, applicants are urged to request transcripts and letters of recommendation at least two weeks before completing the online application. Consideration of applications cannot be undertaken until all materials are available. The deadline for applying to the Counseling emphasis is January 15th.

Degree Requirements

1. Foundations, 9-12 hours:

Philosophical, historical, psychological, sociological, anthropological, and comparative foundations of education, as well as curriculum, instruction, and supervision.

2. Research Methods 15-18 hours:

Students in the Teaching-Learning Processes, Educational Leadership and Policy Studies, and Educational Psychology emphasis areas should complete the following or equivalent in order:

ED REM 6735: Statistical Analysis for Educational Research (Pre-requisite)

ED REM 6750: Advanced Research Design in Education
Plus any three methods courses from the following:

ED REM 7771: Quantitative Research Methods I

ED REM 7772: Quantitative Research Methods II

ED REM 7781: Qualitative Methods in Educational Research I

ED REM 7782: Qualitative Methods in Educational Research II

This sequence totals 15 hours of methods courses. Remaining hours can be completed with other ED REM courses numbered 6000 or higher or research courses in another curriculum.

For Ph.D. students in the Counseling emphasis area, the recommended sequence is:

ED REM 6710: Educational Research Methods and Design

ED REM 7771: Quantitative Research Methods I

ED REM 7772: Quantitative Research Methods II

ED REM 7781: Qualitative Methods in Educational Research I

ED REM 7782: Qualitative Methods in Educational Research II

3. Foreign Language Proficiency or Other Research Tools, equivalent to 6 hours

4. Emphasis Area (Primary Discipline) courses, 21-27 hours, with at least 16 in residence, in one of the following areas:

A. Teaching-Learning Processes

Minimum 15 hours in cognate area

Minimum 3 hours in curriculum or instruction

Minimum 3 hours in educational psychology

B. Educational Leadership and Policy Studies

Minimum 21 hours in educational leadership, either in K-12, higher education, work, adult, or community education settings, selected in consultation with the faculty advisor and advisory committee.

C. Educational Psychology

Minimum of 21 hour in educational psychology. Program may include courses in research and evaluation methods, school psychology, developmental psychology, cognition and learning, character education, and socio-cultural theory. Courses in the primary discipline will be selected in consultation with the faculty adviser and advisory committee.

D. Counseling

CNS ED 6030, Foundations for Multicultural Counseling

CNS ED 6040, Group Procedures in Counseling

CNS ED 6050, Individual Inventory

CNS ED 6370, Community Counseling Practicum (or CNS ED 6270, School Counseling Practicum)

CNS ED 6380, Community Counseling Field Experience (6 hours) (or CNS ED 6280, School Counseling Field Experience I and CNS ED 6285 School Counseling Field Experience II)

CNS ED 6400, Career Information and Development

CNS ED 6410, Advanced Career Development

CNS ED 7000, Advanced Theories of Counseling and Family Therapy

CNS ED 7010, Advanced Multicultural Counseling

CNS ED 7020, Seminar in Counseling Research

CNS ED 7030, Counselor Education and Supervision

CNS ED 7770, Doctoral Practicum (3 hours)

Additionally, all students should complete CNS ED 7780, Doctoral Internship (6 hrs) as a research internship; and a secondary discipline in ED PSY consisting of at least ED PSY 6310, Psychology of Learning Processes, ED PSY 6113, Personality Development and Adjustment, and ED REM 6718, Psycho-Educational Assessment II

5. Related (Secondary Discipline) Courses, 12-15 hours, in education or another department.

6. Required Exit course, 3 hours

EDUC 7950, The Research Process II: Developing and Refining Education Research Proposals

7. Research Internship, 6-9 hours

8. Dissertation, 12 hours

Total: Minimum 90 hours, post-baccalaureate

Support Services

The College of Education maintains a number of offices and centers to directly assist students, faculty, and people in the metropolitan area and to support its instructional, research, and service activities.

Teacher Certification & Advising Office-155 Marillac

This office provides advising services for teacher education undergraduate and certification students. The office coordinates the teacher education clinical experiences, directs the student teacher program and submits documents for state teacher certification.

Office of Graduate Education - 123 SCCB

Information about admission to, and requirements of, graduate programs in education may be obtained in this office. The office also assists students with advisement, registration, graduation and related topics, and maintains student records.

School and Family Counseling Center, Suite 9, Regional Center for Education and Work

The School and Family Counseling Center is a training facility for graduate students supervised by faculty in the Division of Counseling and Family Therapy. Counseling assistance with individual couples and family problems as well as adults, adolescents, or children's developmental concerns are available to individuals in the community. Phone (314) 516-5782 for more information.

Reading Clinic-B9 ED 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.

E. Desmond Lee Technology and Learning Center-100 Marillac

The center provides education students and faculty a model environment for managing new methods of teaching through the newest technologies; a place to research and develop technology-enhanced teaching methods to engage K-12 students; and programs that connect school classrooms to the workplace.

College-wide Courses in Education (EDUC)

2204 Special Topics in Education (1-3)

Prerequisites: Completion of 75 hours and consent of instructor. Examination of a special area or topic within the field of education. Topics to be considered will be announced prior to registration and may vary. For elective credit only. This course may be repeated for different topics. Not to exceed a total of six hours credit.

2290 Internship I (6)

Prerequisites: Senior standing and consent of instructor. Field experience in educational setting under university supervision. Includes planning, research, evaluation, and other professional activities in the student's area of concentration.

2291 Internship II (6)

Prerequisite: Completion of or concurrent enrollment in EDUC 2290. Continuation of EDUC 2290.

2297 Independent Study (1-3)

Prerequisites: Completion of 75 hours and consent of instructor. Independent study through readings, research, reports, and conferences designed to provide depth in areas of study previously introduced in education courses. For elective credit only. May be repeated. Not to exceed a total of three hours credit.

4301 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.

5006 Graduate Workshop (1-10)

Prerequisite: Consent of instructor.

5993 Practicum in Individualized Instruction (3-6)

Prerequisites: Completion of the course(s) to which assigned for instruction and consent of instructor. Supervised instruction in individualized programs. Seminar accompanies instructional experience. May be repeated

6308 Graduate Institute (1-10)

Prerequisite: Consent of instructor.

6408 Graduate Seminar (1-10)

Prerequisite: Consent of instructor. Intensive study of selected issues in education.

6491 Staff Development and Professional Growth (1-10)

Designed in conjunction with an individual school district or educational agency and related to problems of education confronting that specific district or agency.

6998 Thesis Research (1-10)

Prerequisite: Consent of instructor

7050 The Research Process I: Framing Research Questions within the Education Literature (3)

Same as ED ADM 7050. Prerequisite: Admission to the Ed.D. or Ph.D. in Education Programs. An overview of the essential elements of research proposals and familiarization with the techniques and tools used to identify important research questions within the education literature. Emphasis is placed on exploring the research literature and both framing and justifying research questions within that literature.

7415 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.

7495 Doctoral Research Tools (1-6)

Prerequisites: ED REM 6710. Structured individual or small group instructional or supervised investigative experience in and with a specific research skill and/or procedure that will be needed in the production of a doctoral dissertation. May not substitute for any existing graduate courses that cover same research tool skills.

7880 Research Internship I (3)

Prerequisite: Nine hours of research methods or statistics and consent of instructor. Supervised experience in the conduct of research studies or scholarly inquiry.

7881 Research Internship II (3)

Prerequisite: EDUC 7880 and consent of instructor. Supervised experience in the conduct of research studies or scholarly inquiry.

7882 Research Internship III (3)

Prerequisite: EDUC 7881 and consent of instructor. Supervised experience in the conduct of research studies or scholarly inquiry.

7950 The Research Process II: Developing and Refining Education Research Proposals (3)

Prerequisites: Completion of 6 hours of ED REM courses numbered 7771 or higher. An in depth examination of the essential elements of a research proposal. Particular emphasis is placed on examining the validity and reliability or the trustworthiness of the design of the proposed research. Tools for identifying research strengths and weaknesses are applied to proposals. Presentation of a written proposal and oral defense of that proposal are required.

7999 Dissertation Research (1-12)

Prerequisite: Admission to the doctoral program.

Credit awarded only upon successful defense of the dissertation.

Division of Counseling and Family Therapy

Faculty

Mark Pope, Professor and Chair
Ed.D., University of San Francisco
R. Rocco Cottone, Professor
Ph.D., Saint Louis University
Charles D. Schmitz, Professor and Dean
Ph.D., University of Missouri-Columbia
Therese S. Cristiani, Associate Professor
Ed.D., Indiana University
Susan Kashubeck-West, Associate Professor,
Ph.D., Ohio State University
W. Glenn White, Associate Professor Emeritus
Ph.D., University of Missouri-Columbia
Angela D. Coker, Assistant Professor
Ph.D., Union Institute and University
Donghyuck Ryan Lee, Assistant Professor
Ph.D., Florida State University
Matthew E. Lemberger, Assistant Professor
Ph.D., University of South Carolina

General Information

The Division of Counseling and Family Therapy is housed on the fourth floor of Marillac Hall. Information about offerings and related matters may be obtained in the Division office, 469 Marillac Hall. The Division of Counseling and Family Therapy offers course work leading to three degrees: the Ph.D. in Education with an Emphasis in Counseling; the Ed.D. in Counselor Education and Supervision; an M.Ed. in Counseling with an emphasis in elementary school counseling, secondary school counseling, and community counseling. General information on the doctoral degrees is presented here. Specific information on the doctoral degrees is presented in this Bulletin in the general College of Education listing.

The following Division of Counseling and Family Therapy areas have been accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP).

- Master of Education (M.Ed.) in School Counseling
- Master of Education (M.Ed.) in Community Counseling
- Master of Education (M.Ed.) in Community Counseling with a Specialization in Career Counseling
- Doctor of Education (Ed.D.) in Counselor Education and Supervision/Doctor of Philosophy (Ph.D.) in Education with an Emphasis in Counseling

CACREP, a specialized accrediting body recognized by the Commission on Recognition of Postsecondary Accreditation, grants accredited status to graduate-level programs in the professional counseling field.

Students wishing to receive Missouri certification in elementary school counseling or secondary school counseling must complete all required courses for the M.Ed. in School Counseling in addition to holding teaching certificates valid in Missouri or taking the equivalent course work. (Consult your advisor if you have questions on these matters.) The M.Ed. in Community Counseling is appropriate for students planning to practice counseling in non school settings, and graduates may pursue the Missouri state license as a professional counselor (in order to practice independently).

The M.Ed. degree programs have an exit requirement of a comprehensive examination. Students may sit for the exam after completing 36 units of the degree program. There is a service charge for taking the exam. The exam will be given at least twice a year. All degree students should consult with their advisers about this requirement.

Vision

The Division of Counseling and Family Therapy, as one of the preeminent counselor preparation programs in the United States, strives to develop the highest quality, culturally competent human service providers through superior teaching, scholarly activity, and service.

Mission

The Division of Counseling and Family Therapy prepares both master's and doctoral level professional counselors and counselor educators, marriage and family therapists, and counseling psychologists to serve the mental health needs of culturally diverse individuals, groups, couples, and families in need. The Division's outreach extends to schools, colleges and universities, community based organizations, business and industry, as well as independent practice. The Division strives to develop a culturally diverse student population and to draw students from local, regional, national, and international locations.

Values

The Division of Counseling and Family Therapy is committed to the full integration of practice, research, and advocacy in the training of counselors for our society. Major emphases in all aspects of such training offered in the Division is the faculty's commitment to social justice, multicultural training, issues of diversity, and the value of work in people's lives. Counselors play a direct role in facilitating the development of active, productive, and healthy members of society, and counselors must be trained to be fair and non-discriminatory, while building on strengths and acknowledging areas for improvement in their clients. Training must be based on empirically and theoretically sound practice, not unfounded or prejudicial opinion. Counseling professionals are guided by the well-established ethical principles in the mental health professions: beneficence, non-maleficence, justice, autonomy, and fidelity. Beneficence, as a guiding principle, means that counselors act in the best interests of their clients.

Non-maleficence means counselors avoid doing harm to clients. Justice means that counselors are fair and non-discriminatory. Autonomy means that counselors view clients as self-directing, as much as possible, and free to make decisions without undue influence. And finally, counselors are guided by the principle of fidelity, meaning they are loyal to their clients and maintain the confidentiality and privacy of the counseling relationship. These general principles guide counseling practice, and they are at the foundation of how the Division of Counseling and Family Therapy trains future counselors for work in our society.

Graduate Studies

Admission

In addition to meeting the general admission requirements of the Graduate School, applicants to the M.Ed. must complete the divisional application in addition to the application to Graduate School, have three completed references on file, must have an undergraduate GPA of 3.0, and must take CNS ED 6000, Personal and Professional Development in Counseling, in their first semester. Admissions will be conducted twice a year. The deadlines for application are June 1 for the fall semester and October 1 for the spring semester.

Since it is the objective of the counseling faculty to identify students with low potential for competent practice as early as possible and to initiate the necessary procedures for dealing with such students, faculty of the counseling program reserve the right to review students at any stage of their coursework. Any grade less than a B in any core counseling course or a U (Unsatisfactory) in any clinical course (CNS ED 6000, Personal and Professional Development in Counseling; CNS ED 6010, Theories of Counseling; CNS ED 6370, Community Counseling Practicum or CNS ED 6270, School Counseling Practicum; CNS ED 6380, Community Counseling Field Experience or CNS ED 6280, School Counseling Field Experience I or CNS ED 6285, School Counseling Field Experience II) will automatically trigger a review process. The Counseling Review Board process, however initiated may result in the termination of the student's degree program or other required or recommended remedies to address deficiencies judged by the Counseling Review Board as related to the skills that are essential to the development of competent and ethical practices as a professional counselor.

Students admitted to the M.Ed. degree programs in counseling as "restricted graduate students" (see the "graduate study" rules in this Bulletin) must attain a 3.0 GPA for the first 12 hours of graduate course work at UM-St. Louis with no grade less than a B or a U (unsatisfactory) in any clinical course. Restricted students must include the following courses in the first 12 hours of coursework: CNS ED 6000, Personal and Professional Development in Counseling; CNS ED 6010, Theories of Counseling; CNS ED 6370, Community Counseling Practicum or CNS ED 6270, School Counseling Practicum; A student earning any

grade less than a B in any of these courses or a U (Unsatisfactory) in any clinical course, but still maintaining a 3.0 GPA, will be allowed to repeat the course one time and must earn a grade of B or better or an S (Satisfactory in any clinical course) to be admitted.

Master of Education in School Counseling – Overview

Mission

The School Counseling Program of the Division of Counseling and Family Therapy prepares professional school counselors to serve the academic, career, and personal/social needs of culturally diverse students in the elementary, middle, and secondary schools. The Division strives to develop a culturally diverse student population and to draw students from local, regional, national, and international locations.

Purpose and Objectives

The M.Ed. in School Counseling program prepares school counselors for positions in public or private elementary, middle, or secondary schools. The program is designed to fulfill entry-level program standards of preparation. It also is intended to enable program graduates to obtain Missouri Department of Elementary and Secondary Education Certification in School Counseling.

Emphasized in the program is the use of developmental perspectives by school counseling and guidance practitioners as outlined by the Missouri Department of Education, the Council for the Accreditation of Counseling and Related Educational Programs (CACREP), and the most innovative school counselor training standards as described by the professional literature. That is, guidance and counseling services are considered appropriate and necessary for all students in schools, not just those with problems or in crisis. Remedial and crisis intervention theories and strategies are covered in the curriculum; however, facilitation of "developmental" conditions needed for students' learning, re-learning, and effective coping are viewed as most important.

The objectives of the school counseling program are to prepare graduates who can conceptualize and organize a school-based program around the eight goals which characterize developmental guidance and counseling programs. The objectives of the program are to prepare graduates who:

1. understand school environments;
2. understand self and others;
3. understand students' attitudes and behaviors;
4. understand students' decision-making and problem-solving skills;
5. have effective interpersonal and communication skills;
6. understand students' school success skills;
7. understand students' career awareness and educational planning; and
8. understand community pride and involvement.

Each of these objectives is further delineated by a set of general objectives, described through expected observable outcomes. While each of these objectives are applicable to all grade levels, particular attention is given to objectives related to developmental stages and tasks for appropriate age groups. Program graduates are expected to be competent in and be able to:

1. provide individual counseling;
2. provide small group counseling;
3. present large group/classroom guidance;
4. organize and manage peer facilitator programs;
5. develop a series of counseling and guidance activities for dysfunctioning (i.e. target) students;
6. provide leadership in organizing guidance experiences for all students within a school;
7. lead parent education groups;
8. consult individually and in groups with teachers, parents, and administrators;
9. consult with child study teams; and
10. demonstrate counselor effectiveness through accountability studies.

Master of Education: Emphasis in Elementary School Counseling

The courses listed below meet the coursework requirements for the M.Ed. degree, state certification, and licensing as a professional counselor:

Counselor Education (CNS ED)

- 6000, Personal and Professional Development in Counseling
- 6010, Theories of Counseling
- 6020, Ethical and Professional Issues in Individual and Relationship Counseling
- 6030, Foundations for Multicultural Counseling
- 6040, Group Procedures in Counseling
- 6050, Individual Inventory
- 6200, Foundations of School Guidance
- 6270, School Counseling Practicum
- 6280, School Counseling Field Experience I
- 6285, School Counseling Field Experience II
- 6400, Career Information and Development

Psychological Foundations and Human Development (ED PSY)

- 6210, Lifespan: Individual & Family Development
- 6532, Psycho-Educational Differences in Childhood

Educational Research and Evaluation Methods (ED REM)

- 6709, Educational and Psychological Measurement
- 6710, Educational Research Methods and Design

One elective course

Total 48 hours.

Individuals seeking certification as a professional school counselor in the State of Missouri who are non-teacher certificated must take the following courses in addition to

their counseling degree: ED PSY 6111, SPEC ED 6411, SPEC ED 6320, and ELE ED 6410 or SEC ED 6415. Students seeking K-12 certification must take both ELE ED 6410 and SEC ED 6415.

Master of Education in Community Counseling – Overview

M.Ed. Community Counseling Program Mission Statement

The Community Counseling Program of the Division of Counseling and Family Therapy prepares professional counselors, including community, career, addictions, couples/family, and child and adolescent counselors, to serve the mental health needs of culturally diverse individuals, groups, couples, and families in need. The Division's outreach extends to schools, colleges and universities, community based organizations, business and industry, as well as independent practice. The Division strives to develop a culturally diverse student population and to draw students from local, regional, national, and international locations.

Purpose and Objectives

The M.Ed. in Community Counseling program prepares community counselors for positions in community colleges, universities, employment agencies, vocational rehabilitation agencies, family and children services, and various federally funded public service projects. Additionally, graduates are employed in career development, and business and industry positions, especially in training and personnel areas. Others have moved into roles calling for research and evaluation skills. The program is designed to fulfill entry-level program standards of preparation. It is also intended to enable program graduates to apply for the Missouri License for Professional Counselors.

The objectives of this program are to prepare graduates:

1. to function effectively and ethically as professional counselors in the community, within a mental health setting;
2. to be self-aware and sensitive to their clients as people who exist in the context of different cultures and races and people who are potentially at risk;
3. to flexibly and skillfully construct and apply theory and techniques to fit unique and changing needs of clients both individually and in groups, within a community mental health setting;
4. to be proficient with the understanding and human relations skills necessary to consult as part of a team effort, within a mental health setting;
5. to help individuals meet developmental concerns and needs both individually and in a variety of developmental group programs, within a mental health setting;
6. to be knowledgeable about career development and the use of appraisal instruments and test interpretation and their impact on individual planning;

7. to be knowledgeable about research methods and research literature; and
8. to value developing professional expertise as a lifelong process.

Master of Education: Emphasis in 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)

- 6000, Personal and Professional Development in Counseling
- 6010, Theories of Counseling
- 6020, Ethical and Professional Issues in Individual and Relationship Counseling
- 6030, Foundations for Multicultural Counseling
- 6040, Group Procedures in Counseling
- 6050, Individual Inventor
- 6200, Foundations of School Guidance
- 6270, School Counseling Practicum
- 6280, School Counseling Field Experience I
- 6285, School Counseling Field Experience II
- 6400, Career Information and Development

Psychological Foundations and Human Development (ED PSY)

- 6210, Lifespan: Individual & Family Development
- 6532, Psychoeducational Differences in Childhood

Educational Research and Evaluation Methods (ED REM)

- 6709, Educational and Psychological Measurement
- 6710, Educational Research Methods and Design

One elective course

Total 48 hours.

Individuals seeking certification as a professional school counselor in the State of Missouri who are non-teacher certificated must take the following courses in addition to their counseling degree: ED PSY 6111, SPEC ED 6412, SPEC ED 6320, and ELE ED 6410 or SEC ED 6415. Students seeking K-12 certification must take both ELE ED 6410 and SEC ED 6415.

Master of Education: Emphasis in Community Counseling

The community counseling emphasis allows flexibility for developing programs appropriate to particular nonschool settings. Students must have their adviser's approval before taking other than required courses.

Core Curriculum (CNS ED)

The courses listed below meet the course work requirements for the M. Ed. degree and the license to practice as a professional counselor:

- 6000, Personal and Professional Development in Counseling
- 6010, Theories of Counseling
- 6020, Ethical and Professional Issues in Individual and Relationship Counseling
- 6030, Foundations for Multicultural Counseling
- 6040, Group Procedures in Counseling
- 6050, Individual Inventory
- 6300, Foundation of Community Counseling
- 6370, Community Counseling Practicum
- 6380, Community Counseling Field Experience (6)
- 6400, Career Information and Development

Psychological Foundations and Human Development (ED PSY)

The following course is required:
6113, Psychopathology and Diagnosis

Educational Research and Evaluation Methods (ED REM)

The following course is required:
6710, Educational Research Methods and Design

Area of Specialization (9 hours)

Course work in the area of specialization is to be selected in consultation with the adviser and may include career counseling, mental health counseling, rehabilitation counseling, child and adolescent counseling, couples and family counseling, and others.

Doctoral Program (Ed.D./Ph.D.) in Counselor Education and Supervision – Overview

Mission

The Doctoral Program in Counselor Education and Supervision of the Division of Counseling and Family Therapy prepares doctoral level counselor educators and supervisors to train professional counselors who will provide services to meet the mental health needs of culturally diverse individuals, groups, couples, and families in need. The Division's goal is to train practitioner-scholar-advocates who can contribute to the professional counseling field in academic, research, and practice contexts. The Division's outreach extends to individuals who practice counseling in schools, colleges and universities, community based organizations, business and industry, as well as independent practice. The Division strives to develop a culturally diverse student population and to draw students from local, regional, national, and international locations.

Ed.D. in Counselor Education and Supervision Mission

The mission of the Ed.D. in Counselor Education and Supervision (School Counseling) is to produce individuals who can serve as: (a) advanced level school counselors; (b) school counselor coordinators; (c) school district counseling program coordinators; and (d) counselor educators.

Purpose and Objectives

The objectives of the Ed.D. in Counselor Education and Supervision Program are:

1. to build upon and enhance the knowledge base in core counseling areas through successful completion of advanced doctoral seminars in research and counseling practice;
2. to refine counseling practice skills and enhance the supervised experience base through successful completion of an advanced doctoral practicum and doctoral internships;
3. to enhance the identification of complex problems in education and counseling through advanced counseling coursework;
4. to develop problem solving strategies in education and counseling;
5. to train counselor educators and supervisors of counselors-in-training;
6. to train supervisors of counseling service agencies in schools or other organizations;
7. to prepare professional counselors to provide a full-range of counseling services to individuals from differing cultural backgrounds facing extraordinary challenges throughout the life span. This requires academic training and supervised practice (both as a student and as a potential supervisor-in-training) addressing the concerns of clients from varied cultural backgrounds, including individuals in protected or minority statuses;
8. to prepare professionals adept at (a) theory development; (b) qualitative and quantitative research methods; (c) integration of research with practice in school and non-school counseling settings through advanced training in qualitative and quantitative research methodology and an advance counseling research seminar;
9. to apply counseling theory to the process and practice of individual and team consultation in various counseling and educational contexts, learned primarily through the doctoral practicum and doctoral internship, but preceded by classroom instruction on organizational climate, ethical climate, and problem solving in "Ethical and Professional Issues in Counseling;"
10. to provide a firm theoretical foundation in personal and social development and assessment through the foundational area coursework;
11. to provide a context for skill development and practice in individual and group assessment (including intelligence, aptitude, achievement, interest, and personality assessment) through a supervised advanced doctoral practicum and doctoral internship;
12. to provide practitioners with a research foundation for directed enquiry and interpretation of research findings through advanced coursework in research methods and a counseling research seminar; and

13. to encourage and facilitate linkage to the counseling professional community and academy through organizational involvement and efforts to present scholarly findings at professional conferences or in professional journals. Students in doctoral seminar and advanced courses will be encouraged to submit their work for publication or presentation through professional and academic outlets.

Ph.D. in Education in Counseling

Mission

Students completing the Ph.D. in counseling will be knowledgeable about counseling's knowledge base; will be competent in research, measurement, and statistical methods; and will possess a high level of applied research and clinical skills. The goal of the program is to prepare professionals adept at theory development, qualitative and quantitative research methods, and integration of research with practice in counseling settings. The larger program intent is to produce researcher practitioners who can provide and assess services designed to enhance the lives of individuals facing extraordinary challenges throughout the lifespan.

Purpose and Objectives

The objectives of the Ph.D. in Education in Counseling Program are:

1. to build upon and enhance the knowledge base in core counseling areas through successful completion of advanced doctoral coursework in research and counseling practice;
2. to refine counseling practice skills and enhance the supervised experience base through successful completion of an advanced doctoral practicum and a doctoral internship;
3. to teach and to require the ethical practice of counseling, counseling research, and counselor education and counseling;
4. to enhance the student's ability to identify and solve complex problems in education and counseling;
5. to train counselor educators and supervisors of counselors-in-training;
6. to prepare professional counselors to provide a full-range of counseling services to individuals from differing cultural backgrounds facing extraordinary challenges throughout the life span. This requires academic training and supervised practice (both as a student and as a potential supervisor-in-training) addressing the concerns of clients from varied cultural backgrounds, including individuals in protected or minority statuses;
7. to prepare professionals adept at (a) theory development; (b) qualitative and quantitative research methods; (c) integration of research with practice in school and non-school counseling;

- settings through advanced coursework and a research seminar;
8. to apply counseling theory to the process and practice of consultation in various counseling and educational contexts, learned primarily through the doctoral practicum and doctoral internship, but proceeded by classroom instruction on organizational climate, ethical climate, and problem solving;
 9. to provide a firm theoretical foundation in the educational psychology "related area discipline," focusing on personal and social development and assessment;
 10. to provide a context for skill development and practice in individual, career, and group assessment (including intelligence, aptitude, achievement, interest, and personality assessment) through a supervised advanced doctoral practicum and doctoral internship;
 11. to train researchers, scholars, and academicians (counselor educators) and to develop and to refine scholarship skills for anticipated entry into the academy through advanced coursework including research methodology and counseling research; and
 12. to encourage and facilitate linkage to the counseling professional community and academy through organizational involvement and efforts to present scholarly findings at professional conferences or in professional journals. Students will be encouraged to submit their work for publication or presentation through professional and academic outlets.

Ph.D. in Counseling Psychology

(Pending approval by the Coordinating Board of Higher Education)

The doctoral program in counseling psychology is designed to reflect a scientist-practitioner-advocate model. Students will be trained to be effective scientists, practitioners, and advocates for social justice. The program emphasizes the integration of theory, research, practice, and advocacy. A special emphasis is a focus on minority mental health and a goal to prepare counseling psychologists who understand, advocate for, and appreciate diversity in people, communities, and cultures.

Admission requirements for the Ph.D. in Counseling Psychology program include a Master's degree in counseling psychology, counseling, or a closely related field. The program requires 72 hours of coursework after admission to the program and is designed to be completed by full-time students in four years (three years of coursework and dissertation work followed by a one year, full-time internship in an applied setting). Students may elect to complete their coursework on a part-time basis, so long as Students may elect to complete their coursework on a part-time basis, so long as university "residency requirements" are met. Part-time students will still complete a full-time internship in an applied setting after they have finished their

coursework and dissertation work (typically they would do the internship during their 7th year in the program, assuming they attend on a half-time basis).

Required Courses

Counselor Education (CNS ED)

- CNS ED 7000, Advanced Theories and Foundations of Counseling Psychology (3 sem. cr. hrs)
CNS ED 7010, Advanced Multicultural Counseling (3 sem. cr. hrs)
CNS ED 7020, Seminar in Counseling Research (3 sem. cr. hrs)
CNS ED 7030, Counselor Education and Supervision (3 sem. cr. hrs)
CNS ED 7050, Advanced Assessment in Counseling Psychology (3 sem. cr. hrs)
CNS ED 7070, Psychopathology and Diagnosis in Counseling Psychology (3 sem. cr. hrs)
CNS ED 7200, History and Systems of Counseling and Psychology (3 sem. cr. hrs)
CNS ED 6410, Advanced Career Development (3 sem. cr. hrs)
CNS ED 7600, Advocacy, Consulting, and Community Intervention in Counseling Psychology (3 sem. cr. hrs)
CNS ED 7770, Doctoral Practicum (9 sem. cr. hrs)
CNS ED 7780, Doctoral Internship (3 sem. cr. hrs)

Educational Research and Evaluation Methods

- ED REM 6718, Psycho-Educational Assessment II (3 sem. cr. hrs)
ED REM 7771, Quantitative Research Methods I (3 sem. cr. hrs)
ED REM 7772, Quantitative Research Methods II (3 sem. cr. hrs)
ED REM 7781, Qualitative Methods in Educational Research (3 sem. cr. hrs)

Educational Psychology

- ED PSY 6310, Psychology of Learning Processes (3 sem. cr. hrs) or ED PSY 6534 or ED PSY 6210 or ED PSY 6111 or ED PSY 7644 or Psy 5468 or Psy 5461
ED PSY 6536, Biological Factors Influencing Human Behavior (3 sem. cr. hrs)
ED PSY 7642, Sociocultural Perspectives in Education (3 sem. cr. hrs)

Education

- EDUC 7999, Dissertation Research (12 sem. cr. hrs)

Doctor of Education Degree (Counselor Education emphasis area)

The Ed.D. degree is designed primarily for the field practitioner and prepares professional leaders who are competent in identifying and solving complex problems in education. Four emphasis areas embrace general categories of professional activities: Educational Administration; Adult & Higher Education; Teaching-Learning Processes; and Counselor Education.

The option in Counselor Education at the University of Missouri - St. Louis is designed to prepare leaders who are competent at identifying and solving complex problems in education, in general, and school counseling leadership, in particular. The option is targeted to train counselor educators, supervisors of counselors-in-training, supervisors in and administrators of counseling service programs in the schools, and practitioners with a well-grounded knowledge base. A special emphasis is a focus on urban and suburban school counseling issues and a goal to prepare counseling professionals who understand, advocate for, and appreciate diversity in people, communities, and cultures.

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 (two letters must be from individuals with an earned doctorate, preferably prior instructors), along with a professional resume. Because enrollment is competitive, admission standards are comparatively high. Successful candidates must exhibit significantly above-average academic records and GRE scores. In exceptional cases, other criteria may outweigh these customary indicators of probable academic success. Applicants to the Counselor Education option are considered once per calendar year with an application deadline of January 15th.

At least two years of teaching or other school service experiences are required for admission. Exceptions may be made by substituting a supervised internship during the first year of the program.

Admission Application

In order to ensure time for review and decision, complete applications and accompanying materials must reach the office of admissions in a timely manner. 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. Foundations, 12 hours from philosophical, historical, psychological, sociological, anthropological, and comparative foundations of education, as well as curriculum, instruction and supervision.

2. Research Methods, 12 hours:

Students in the Educational Administration, Adult and Higher Education, and Teaching-Learning Processes options should complete the following or equivalent in order:

ED REM 6735, Statistical Analysis for Educational Research (pre-requisite)
ED REM 6750, Advanced Research Design in Education

Plus any two methods courses from the following:

ED REM 7771, Quantitative Research Methods I
ED REM 7772, Quantitative Research Methods II
ED REM 7781, Qualitative Methods in Educational Research I
ED REM 7782, Qualitative Methods in Educational Research II

This sequence totals 12 hours of methods courses. Any remaining required hours could be completed with other ED REM courses numbered 6000 or higher or research courses in another curriculum.

Students in the Counselor Education option should complete the following sequence:

ED REM 6718, Psycho-Education Assessment II
ED REM 7771, Quantitative Research Methods I
ED REM 7781, Qualitative Research Methods I
One of the following:
ED REM 7782, Qualitative Methods in Educational Research II
ED REM 7772, Quantitative Research Methods II

3. Common doctoral seminars, 6 hours

EDUC 7050, The Research Process I: Framing Research Questions with the Education Literature
EDUC 7950, The Research Process II: Developing and Refining Education Research Proposals

4. Major Specialization, 21-39 hours:

Educational Administration Option

Educational Administration (ED ADM) or other courses selected in consultation with the advisory committee, including internship (3-9 hours)

Adult and Higher Education Option

Adult Education (ADU ED) or Higher Education (HIR ED) or other courses selected in consultation with the advisory committee, including internship (3-9 hours)

Teaching-Learning Processes Option

Teacher Education (TCH ED) courses or courses in education in a teaching field, including courses on curriculum construction and the design and improvement of instruction, all selected in consultation with the advisory committee, including internship (3-9 hours)

Counselor Education Option (30 hours)

CNS ED 7000, Advanced Theories and Foundations of Counseling and Family Therapy
CNS ED 7010, Advanced Multicultural Counseling
CNS ED 7020, Seminar in Counseling Research

CNS ED 7030, Counselor Education and Supervision
CNS ED 6410, Advanced Career Development
CNS ED 7400, Advanced Topics in School Counseling
CNS ED 7035, Counselor Education & Supervision
CNS ED 7770, Doctoral Practicum
CNS ED 7780, Doctoral Internship (6 hrs)

5. Minor Specialization, 12-18 hours

A secondary area of expertise identified in consultation with the advisory committee.

6. Dissertation, 12 hours

Total: minimum 90 hours, post-baccalaureate

Career Outlook

Elementary and Secondary School Counselors

The demand for school counselors throughout the state is quite high. There is a shortage of school counseling personnel at all levels. Additionally, many teachers who do not intend to leave the classroom pursue this program to be better able to meet the needs of their students. Some graduates of the program have left the field of education and have obtained positions such as those cited under Community Counseling.

Note: It should be noted that in Missouri, persons who engage in "professional counseling" in many of these settings are required by law to be licensed as professional counselors.

Community Counselors

Graduates have been employed in a wide variety of settings: as counselors in community colleges, universities, employment agencies, vocational rehabilitation agencies, probation and parole work, juvenile detention, alcoholism and drug abuse clinics, career planning and placement centers, community mental health agencies, family and children services, and various federally funded public service projects. Additionally, graduates are employed in career development, and business and industry positions, especially in training and personnel areas. Others have moved into roles calling for research and evaluation skills.

Course Descriptions

Prerequisites may be waived by consent of the department. For information about certification and licensure, an adviser should be consulted. Course descriptions in this section are Counseling (CNS ED) courses.

Counseling (CNS ED)

1400 Making a Career Choice (1)

Introduces students to career development theories (Holland, Super, Bolles, etc.) and the career decision-making process. Students receive an overview of career development theory and learn how these theories pertain to the formulation of

career plans. Self-assessment and decision-making techniques learned in this class can be revisited throughout the life span. The seminar format allows for small group discussion of career-related issues and personal application of career development principles.

3000 Introduction to the Counseling Profession (3)

Prerequisite: Junior or senior level standing. This survey course will provide undergraduates and non-counselors 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.

3210 Counseling Gifted Students (3)

Prerequisites: SPEC ED 3313, ED PSY 3312, 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.

3220 Counseling Individuals with Special Needs (3)

Prerequisite: SPEC ED 3313, or equivalent. A course emphasizing counseling skills for individuals who plan to work with the handicapped. Emphasis is placed on using counseling strategies with school-age handicapped children.

3710 Counseling the Chemically 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.

3720 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.

4314 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. Reading, discussion, and skillbuilding exercises will be used to develop various human relations skills.

4330 Principles and Procedures for Student Personnel Work (3)

Student personnel work in educational institutions, objectives of student personnel work, and certain pertinent techniques.

4342 Occupational and Educational Information (3)

Nature and use of occupational and educational information. Characteristics, requirements of occupations, and training opportunities.

6000 Personal and Professional Development in Counseling (3)

Prerequisite: Provisional acceptance to the Counseling Program or consent of instructor. This course provides an in-depth view of the professional counseling field. Attention is focused on the development of the helping relationship, including a review of research on factors which influence helping processes and rapport building, a development of skills used in the counseling process, and increased awareness of how students' values, beliefs, and behaviors are related to counselor effectiveness.

6010 Theories of Counseling (3)

Prerequisite: CNS ED 6000. 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.

6020 Ethical and Professional Issues in Individual and Relationship Counseling (3)

Prerequisite: CNS ED 6000. Ethical, legal, and professional issues related to counseling are addressed. Ethical dilemmas in the provision of counseling services to individuals, couples, families, and groups are defined. Specific ethical codes of professional organizations are examined.

6030 Foundations for Multicultural Counseling (3)

Prerequisite: CNS ED 6000 with a grade of B or better and CNS ED 6010. This course will focus on: (1) reviewing knowledge and research in the area of multicultural counseling, (2) developing and/or enhancing skills useful in counseling with individuals from minority populations, and (3) developing levels of personal awareness about stereotypes, and learning how feelings and attitudes about these may impact counseling with individuals from minority populations.

6040 Group Procedures in Counseling (3)

Prerequisites: CNS ED 6000 with a grade of B or better and CNS ED 6010 and CNS ED 6270 or 6370. This course examines the process dynamics of groups including group development, leadership, norms and therapeutic factors. Group counseling theories and approaches used for other group work including skills, personal growth, support, vocational, and developmental guidance groups are included. Knowledge and skills of how to facilitate therapeutic groups are included. Students will be required to be participant-observers or facilitators of a group outside of class time.

6050 Individual Inventory (3)

Prerequisites: ED REM 6709. 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.

6060 Enhancing Counseling Skills (3)

Prerequisites: CNS ED 6000. Focuses on mastery of basic counseling skills for students who possess an understanding of the counseling process.

6200 Foundations of School Guidance (3)

Prerequisites: CNS ED 6000 with a grade of B or better. The purpose of this course is to give students a foundation for understanding the history, philosophy, and development of school guidance programs. The role functions of the school counselor within a developmental, comprehensive program are examined, along with communication skills necessary for consultation with students, parents, school support staff, and resource people in the community nonacademic needs.

6220 Current Issues In Counseling Special Needs Populations (3)

Prerequisites: Graduate Standing. Designed to analyze relevant literature and to provide communication skills training for those professionals in school settings who work with individuals with special needs. The characteristics and social and emotional needs of this special population will be discussed as well as the impact of special needs on the family system.

6270 School Counseling Practicum (3)

Prerequisite: CNS ED 6000 and 6010 (both courses with a grade of B or better) or consent of the instructor. Supervised practice in counseling with children and adolescents and the opportunity for students to learn to facilitate personal change and problem solutions using a defined systematic framework, theoretical orientation, or research base.

6280 School Counseling Field Experience I (3)

Prerequisite: CNS ED 6270 with a grade of B or better and consent of instructor. A 300-hour closely supervised field experience under the direction of a graduate faculty member. Designed to move the student to an appropriate level of competence and evidence of growth in the professional school counselor role. Students will receive 1.5 hours of group and 1 hour of individual supervision weekly by field experience site supervisor.

6285 School Counseling Field Experience II (3)

Prerequisites: CNS ED 6280 with a grade of B or better and consent of instructor. A 300-hour closely supervised field experience under the direction of a graduate faculty member. The course will build on and extend the School Counseling Field Experience I. The student will acquire counseling

competencies and ethical practice in keeping with the Missouri state guidelines for school counselors. Students will receive 1.5 hours of group and 1 hour of individual supervision weekly by field experience site supervisor.

6300 Foundation of Community Counseling (3)

Prerequisites: CNS ED 6000 with a grade of B or better and CNS ED 6010. A study of counseling profession applicable to a variety of human service settings. Introduction to the basic philosophical, historical, and psychological foundations of community and agency counseling. Designed to acquaint the student with the foundations and roles of the counselor in various community and agency settings.

6370 Community Counseling Practicum (1-6)

Prerequisite: CNS ED 6000 and 6010 and consent of instructor. One hundred clock hours of supervised practice in counseling to provide the opportunity for students to pragmatically integrate and process materials, theories, techniques, and methodologies as they are applied in the counseling profession.

6380 Community Counseling Field Experience (1-6)

Prerequisite: CNS ED 6370 and consent of instructor. A 100-hour field experience for each semester-credit-hour of enrollment. Students will be closely supervised under the direction of a graduate faculty member. Students must demonstrate counseling competencies and skillful ethical practice. Students will receive 1.5 hours of group supervision weekly by a graduate faculty member and 1 hour of individual supervision weekly by field experience site supervisor during terms of enrollment.

6400 Career Information and Development (3)

Prerequisites: CNS ED 6000 with a grade of B or better and graduate standing. Emphasis is on the nature of the changing labor market and the impact on personal, social, economic, career and educational aspects of individuals and society. Use of occupational and educational information systems and resources to assist with career decisions are examined. The needs of culturally diverse populations are discussed. Use of career and labor market information and programs such as computer technology to access up-to-date career and labor market information is explored. Techniques and methods of career counseling are discussed. Various theories of career development and career choice will be examined.

6404 Seminars (1-10)

Prerequisite: Graduate Standing

6410 Advanced Career Development (3)

Prerequisites: CNS ED 6400 or consent of instructor. Emphasis is on current theories of career development, career choice, and techniques and methods of career counseling. Issues concerning education and training, work, leisure, the family, life roles, and culturally diverse populations are studied. The role of career theory in

planning, development, and delivery of a career development program is explored.

6420 Career Assessment in Counseling and Rehabilitation (3)

Prerequisites: CNS ED 6050 and 6400 or consent of instructor. This course provides an in-depth and specialized look at the educational and psychological assessment techniques used in career counseling, especially the assessment of career interests, work values, work environment, work skills, work samples, career development stages, career maturity, career decision making, and career beliefs. Issues of using computers in the delivery of career development services will be discussed.

6436 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.

6497 Problems (1-10)

6500 Introduction to Systems Theory for Marriage and Family Counseling (3)

Prerequisite: CNS ED 6010. 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.

6510 Couple Counseling and Enrichment (3)

Prerequisite: CNS ED 6500 or consent of instructor. This course focuses on the theory and technique of marital or couples counseling and enrichment. Models and methods for prevention and treatment of relationship dysfunction are explored. Relationship developmental issues are addressed. Students are challenged to develop the critical skills necessary to be effective marriage counselors and marital life educators.

6520 Family Counseling (3)

Prerequisites: CNS ED 6500 and CNS ED 6260 or 6370, or consent of instructor. This course offers an in-depth analysis of strategic, structural, experiential, communications, behavioral, and psychodynamic approaches to systems change and family counseling. The range of techniques and applied practices evolving from each orientation are explored as are normal and dysfunctional family processes. Various counseling modalities, such as individual, concurrent, collaborative, conjoint, group, intergenerational, and networking are also considered.

6600 Theories and Techniques of Counseling Children and Adolescents (3)

Prerequisite: CNS ED 6000, 6010 (with a grade of B or better in both courses) or consent of the instructor. Focus is on counseling theories and their applicability to the developmental special concerns of children and adolescents including child-at-risk issues such as: abuse, suicide, divorce, and death and dying. Individual, group, and family intervention techniques and consultation skills will be emphasized, as well as legal and ethical considerations for counselors. Strategies presented can be utilized in a variety of settings. Multicultural considerations are also addressed.

6700 Introduction to Addictive Behaviors and Addiction Counseling (3)

Prerequisites: CNS ED 6010 consent of instructor. Exploration of the theoretical foundations of contemporary approaches to such addictive behaviors as alcohol and drug abuse, smoking, compulsive gambling, and sexual addiction. The nature, etiology, prevention, and treatment of addictions are discussed and analyzed from a variety of theoretical perspectives. The applications of these specific theoretical models to various treatment settings are examined. Multicultural considerations are also addressed.

6782 Advanced Strategies in Addictions Counseling (3)

Prerequisite: CNS ED 6700, or consent of instructor. Study of advanced, empirically supported counseling approaches and techniques for the treatment of addictive behaviors. An emphasis is placed on screening and assessment procedures and on matching interventions to individual client and community needs.

6784 Counseling the Dual Diagnosed Substance Abuser (3)

Prerequisites: CNS ED 6700 and CNS ED 6010. 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.

6800 Rehabilitation Counseling (3)

Prerequisite: CNS ED 6000, 6010, 6270, or 6370. 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.

6810 Integrating Religion and Spirituality in Counseling (3)

This course is for counselors and students wishing to develop the methods to integrate religion and spirituality in counseling and learn about counseling strategies for persons of various religious backgrounds, the link between health

and religion, and ethics involved in the assessment and integration of religion and spirituality in practice.

7000 Advanced Theories and Foundations of Counseling Psychology (3)

Prerequisites: Doctoral standing or instructor consent. A seminar on the discipline of counseling psychology, including its history, development, and current status. An important focus will be contemporary and emergent theories in the field.

7010 Advanced Multicultural Counseling (3)

Prerequisite: CNS ED 6030 and doctoral standing or consent of instructor. This advanced course addresses theories and research in multicultural counseling.

7020 Seminar in Counseling Research (3)

Prerequisite: ED REM 6710, doctoral standing or consent of instructor. The purpose of this course is to review and analyze current counseling research literature. Ethical issues will be addressed.

7030 Counselor Education and Supervision (3)

An introduction to clinical supervision in counseling. Theories, models, and research in supervision will be presented. Students will supervise master's level students in practicum and internship courses in counseling.

7035 Counselor Education & Supervision Practicum (3)

Prerequisites: Admission to the Counseling Option in the Ed.D. or Ph.D. Program. Offers advanced training in counseling supervision. Students will supervise master's level students in practicum and internship courses in counseling. Students will be expected to maintain an assigned caseload of supervisees and attend three hours of weekly doctoral-level supervision.

7040 Counseling Women Toward Empowerment (3)

Prerequisite: CNS ED 6000, 6010 and CNS ED 6270 or 6370 or consent of instructor. An introduction to Women's issues in counseling. Relational theory, healthy female development, and an overview of clinical issues most common to females will be presented.

7050 Advanced Assessment in Counseling (3)

Prerequisite: CNS ED 6050 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.

7070 Psychopathology and Diagnosis in Counseling Psychology (3)

Prerequisite: Doctoral standing or consent of instructor. This advanced course provides an in-depth look at adult psychopathology based upon the diagnostic categories of the

Diagnostic and Statistical Manual of Mental Disorders (DSM). Contemporary theoretical, clinical, and research issues will be covered, with an emphasis on differential diagnosis.

7200 History and Systems of Counseling and Psychology (3)

Prerequisites: Doctoral standing or instructor consent. A review of the major theoretical systems and schools of psychology in terms of historical assumptions, methodologies, and developments.

7400 Advanced Topics in School Counseling Leadership (3)

Prerequisites: Admission to the Counseling Option in the Ed.D. Program. Focuses on leadership roles and advanced skills for professional school counselors, school counseling supervisors, and school counseling educators. Models for school counseling programs, evaluation strategies, and training and supervision strategies will be addressed, with a special emphasis on preventative and culturally sound interventions.

7471 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.

7480 Advanced Clinical Issues in Counseling (3)

Prerequisite: Doctoral standing or consent of instructor. This course will address advanced clinical issues with seriously disturbed clients.

7600 Advocacy, Consulting, and Community Intervention in Counseling Psychology (3)

Prerequisites: Doctoral standing or instructor consent. This course provides students with knowledge and experience in the application of psychological theories and methods to community concerns and problems.

7770 Doctoral Practicum (3)

Prerequisites: Doctoral standing. 100 hours of on-campus doctoral-level supervised counseling practice. Students will counsel clients and will be introduced to teaching and supervising beginning counseling trainees in a clinical context. As a prerequisite to the doctoral internship, students will be expected to demonstrate competence in skills required of counselor educators and clinical supervisors. Students will receive 1.5 hours of group and 1 hour of individual supervision by a graduate faculty member.

7780 Doctoral Internship (1-6)

Prerequisites: CNS ED 7770; ED REM 7804 and ED REM 7781. A 100-hour field experience for each semester-credit hour of enrollment under the direction of a graduate faculty

member. Students provide counseling services to clients at field sites, teach and supervise beginning counseling trainees, and conduct clinical research projects. Students are supervised by a graduate faculty member in two hours per week of group supervision, and they receive one hour per week of individual supervision by the field site supervisor.

7802 Theory and Practice of Clinical Hypnosis in Counseling (3)

Prerequisite: CNS ED 6270 or 6370 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.

7806 Practicum in Group Counseling (3)

Prerequisite: CNS ED 7804 and doctoral standing or consent of instructor. Students will lead or co-lead a supervised counseling group in the community.

Division of Educational Leadership and Policy Studies

Faculty

E. Paulette Isaac-Savage, Associate Professor,
Chairperson
Ed.D., University of Georgia

Lynn Beckwith, Jr., E. Desmond Lee Professor in Urban
Education
Ed.D., St. Louis University

Judith A. Cochran, E. Desmond Lee Professor in Tutorial
Education
Ph.D., Arizona State University

Kent Farnsworth, Mary Ann Lee Endowed Professor of
Community College Leadership Community College
President in Residence
Ph.D., University of Iowa

Lowe S. (Sandy) MacLean, Vice Chancellor Emeritus
Ed.D., Indiana University-Bloomington

Lloyd I. Richardson Jr., Professor
Ph.D., George Peabody College of Vanderbilt University

Charles D. Schmitz, Professor, Dean
Ph.D., University of Missouri-Columbia

Joy E. Whitener, Dean Emeritus, Professor Emeritus
Ed.D., Washington University

Patricia Boyer, Associate Professor
Ph.D., University of Missouri-Columbia

Kathleen Sullivan Brown, Associate Professor
Ph.D., Washington University

Matthew D. Davis, Associate Professor
Ph.D., University of Texas - Austin

Charles J. Fazzaro, Associate Professor
Ed.D., West Virginia University

John A. Henschke, Associate Professor
Continuing Education Specialist, University of Missouri
Extension-East Central Region
Ed.D., Boston University

Carole A. Murphy, Associate Professor
Ed.D., Texas A&M University

Thomas R. Schnell, Associate Professor
Ph.D., Southern Illinois University, Carbondale

Shawn Woodhouse, Associate Professor
Ph.D., University of Missouri-Columbia

Wendell L. Smith, Assistant Professor, Special Assistant to
the Chancellor and Dean Emeritus
Ph.D., Ohio State University

Matthew D. Davis, Associate Professor
Ph.D., University of Texas, Austin

Pi Chi Han, Assistant Professor
Ed.D., University of Arkansas

James E. Murray, Assistant Professor
Ph.D., University of Missouri-St. Louis

Ken Owen, Associate Teaching Professor
Ed.D., Saint Louis University

Margaret R. Dolan, Assistant Teaching Professor
Ph.D., St. Louis University

John Ingram Jr., Associate Teaching Professor
Ph.D., University of Wisconsin-Madison

General Information

The Division of Educational Leadership and Policy Studies (ELAPS) faculty is housed on the second floor of Marillac Hall. Questions about the division and its offerings may be directed to the division office, 269 Marillac Hall (314) 516-5944.

Graduate Studies

The ELAPS Division offers graduate programs in:

- K-12 Administration: including Missouri State School Administrator Certifications
- Higher Education: including Community College
- Adult and Community Education

K-12 School Administration:

Includes academic degree programs at the master's (M.Ed.), specialist (Ed.S.), and doctoral (Ed.D. and Ph.D.) levels. These programs are consistent with the academic requirements for Missouri State certification for elementary, middle, and secondary school administration as well as school superintendent and special education administration. The programs are accredited by the National Council for Accreditation of Teacher Education (NCATE) and the Missouri Department of Elementary and Secondary Education (DESE).

The Programs in K-12 school administration are not merely a list of courses. The M.Ed. and Ed.S. degree programs are organized into a continuous two-phase academic/practice experience. In the first phase the students earn the M.Ed. degree and meet the academic requirements for the initial Missouri State elementary and secondary school administrator's certificates. The second phase leads to the Ed.S. concentrating more on the relationship of academics to practical schooling experiences and solution to school-based problems. With proper selection of courses in the Ed.S. phase, students can meet most of the academic requirements for the Missouri school superintendent's certificate. Please see your advisor for specifics regarding the superintendent certification.

Education Specialist (Ed.S.) in Education Administration

The Education Specialist Degree (Ed.S.) in Education Administration is a logical extension of the University of Missouri-St. Louis M.Ed. in Education Administration and is designed to prepare administrators to serve in school settings from Kindergarten to grade twelve. The Ed.S. in Education Administration requires at least sixty (60) graduate credit hours of a planned program and may include no more than thirty six (36) credit hours of an approved NCATE accredited master's degree. One-half (15 credit hours) must be completed within the COE after being admitted to the Ed.S. program. As constituted, the minimum course requirements for the Ed.S. in Education Administration collaterally meets the academic standards for both Elementary and Secondary advanced school

administrator certification in Missouri. To be recommended for the Missouri School Superintendent, students must complete at least a minimum of six (6) additional hours depending on the courses taken for the Ed.S. for a total of sixty-six (66) hours above the baccalaureate.

Admission Standards

To be admitted to the Ed.S. in Education Administration program students must meet the following criteria:

1. Be admitted without qualification to the UMSL Graduate School;
2. Have scores on the Verbal, Quantitative, and Analytical Writing sections of the Graduate Record Examination that is at least the mean for the applicant's major field.
3. Have a graduate grade point average of at least 3.25 on a scale of 4.00.
4. Have on file at least three (3) recommendations including the following: one (1) from an educator presently occupying a position equal or similar to that which the applicant aspires upon completing the Ed.S., one (1) from a university professor with direct knowledge of the applicant's graduate degree work, and one (1) from someone other than a member of the applicant's family who can comment on the applicant's character.
5. Students already possessing a master's degree from an NCATE accredited institution may transfer those credit hours into the Ed.S. degree program; however, at least twenty-four (24) credit hours must be completed after acceptance into the program; and

Degree Program

There are three (3) phases to this degree program. **Phase 1.00** must be completed by students not possessing a UMSL M.Ed. in Education Administration and those wanting to transfer appropriate grade courses from other NCATE institutions. **Phase 2.00** applies to those students meeting all of the requirements in Phase 1.00. There are two (2) sections to **Phase 2.00**— Section 2.10 *Technical Aspects of Education Administration* and Section 2.20 Human Aspects of Education Administration. Courses in these two sections may be taken simultaneously. There are two (2) sections to **Phase 3.00**— Section 3.10 *Writing Exit Requirements* and Section 3.20 *Examination Exit Requirements*. Both sections must be completed no sooner than one (1) semester before completing all degree requirements. Students seeking the superintendent certification must complete ten (10) specifically required courses.

Phase 1.00

1.00 Elementary and Secondary School Education Emphases

1.10 Contexts Core

- ED ADM 6201, Knowledge Contexts of Education Administration and Policy (3)
- ED ADM 6202, Social Contexts of Education (3)
- ED ADM 6203, Political Contexts of Education (3)
- ED ADM 6204, Economic Contexts of Education (3)
- ED ADM 6205, Legal Contexts of Education (3)
- Required Semester Hours Section 1.10... 15

1.20 Research/Change Core (6-9 semester hours)

- *ED REM 6707, Classroom Measurement and Evaluation (3)
- **ED ADM 6301, Education Administration and Policy Research (3)
- ED ADM 6503, Organizational Change in Education (3)
- Required Semester Hours Section 1.20 ...6-9

1.30 School Specialization Core

1.31 Elementary School Administration

- ED ADM 6302, Elementary School Administration (3)
- ED ADM 6401, School Staff Development and Supervision (3)
- ELE ED 6411, Curricular Issues in Elementary Schools
- *** ED ADM 6900, Internship (3)
- Required Semester Hours Section 1.31.....12
- OR

1.32 Secondary School Administration

- ED ADM 6304, Secondary School Administration (3)
- ED ADM 6401, School Staff Development and Supervision (3)
- SEC ED 6415, Secondary School Curriculum
- *** ED ADM 6900, Internship (3)
- Required Semester Hours Section 1.3212

TOTAL Phase I..... 33-36

* Required if student had no equivalent course at the undergraduate level

** Must be taken during the first semester of Phase 2.00 courses

*** This course must be taken within the last (9) nine semester hours of completion of Phase 1.00

Phase 2.00

Section 2.10

Technical Aspects of Education Administration
 (12 Semester hours required)

At least 12 graduate semester hours are required from the following list of recommended courses. Other courses must be approved by the student's advisor and ELAPS division chairperson.

- ED ADM 6303, Middle School Administration (3)
- ED ADM 6305, School District Administration (3)

- ED ADM 6407**, School Staff development & Supervision for Special Ed Administrators (3)
- ED ADM 6501**, Principles of Public School Finance in Missouri (3)
- ED ADM 6502**, School Buildings and Sites (3)
- ELE ED 6411**, Curricular Issues in the Elementary School (3)
- SEC ED 6415**, Secondary School Curriculum (3)
- SEC ED 6420**, Improvement of Secondary School Teaching (3)
- SEC ED 4315**, The Middle Level School (3)
- ED ADM 6306**, Special Education Administration (3)
- ED TECH 5340**, Selection and Utilization of Educational Media (3)
- ED TECH 6433**, Educational Technology Systems Management (3)
- ED TECH 6449**, Using Technology in Administrative Processes (3)
- ED REM 6708**, Education and Psychological Measurement (3)

Section 2.20

Human Aspects of Education Administration
 (12 semester hours required)

At least 12 graduate semester hours are required from the following list of recommended courses. Other courses must be approved by the student's advisor and ELAPS division chairperson.

- ED ADM 6307**, Integrated Curriculum for Special Ed Administrators (3)
- ED ADM 6317**, Supervision of the Middle School Child (3)
- ED ADM 6402**, School Personnel Administration (3)
- ED ADM 6403**, Problems in School Public Relations (3)
- ED ADM 6404**, Collective Negotiations in Education Organizations (3)
- ED ADM 6602**, Programming in Adult and Community Education (3)
- ED FND 6421**, Philosophy of Education (3)
- ED FND 6422**, Analysis of Education Issues (3)
- ED FND 6435**, History of Western Education (3)
- ED PSY 6225**, Psychology of Adolescence (3)
- POL SCI 6462**, Political Theory and Public Policy (3)
- ED ADM 6900**, Internship (School District Level) (3)
- ED ADM 6900**, Internship (Special Education Setting) (3)

Total Section 5.32..... 12

TOTAL Education Specialist Degree in Education Administration..... 60
 (inclusive of a maximum of 36 credit hours from an M.Ed. in education administration.)

Phase 3.00

Writing Exit Requirements

Section 3.10-Writing Requirements

At least two (2) months before the completion of all course work for the degree, each student must present to the ELAPS Division K-12 Regular faculty *Ed.S. Writing Committee* a **scholarly paper** on a topic approved by the student's academic advisor. The paper submitted may be original in that it has been written especially for this requirement or it may be a more comprehensive version of a paper written for a class taken after being admitted to the Ed.S. program. The paper must conform to the writing standards found in the booklet *ELAPS K-12 Writing Requirements-Form and Style*.

Written:

At least three (3) months before completion of all course work for the degree, each student must complete a written examination of no less than three (3) hours on two (2) topics agreed upon by the student's academic advisor and the student. The examinations will be read and evaluated on scholarly substance of content and quality of writing as either PASS or FAIL by at least two (2) Regular members of the ELAPS K-12 faculty.

Master of Education (M.Ed.) and Initial Missouri School Administration Certification

The program of study for the M.Ed. in Education Administration is thirty-three (33) graduate credit hours. All courses in the program are required and must be taken in a particular sequence. The program meets the academic requirements for either the Missouri elementary or secondary school administrator certificate.

Degree Requirements

1.00 Contexts Core (15 semester hours)

- ED ADM 6201**, Knowledge Contexts of Education Administration and Policy
- ED ADM 6202**, Social Contexts of Education
- ED ADM 6203**, Political Contexts of Education
- ED ADM 6204**, Economic Contexts of Education
- ED ADM 6205**, Legal Contexts of Education

1.20 Research/Change Core (6-9 semester hours)

- ***ED REM 6707**, Classroom Measurement and Evaluation
- ** **ED ADM 6301**, Education Administration Policy Research
- ED ADM 6503**, Organizational Change in Education

1.30 School Specialization Core (12 semester hours)

- 1.31 Elementary School Administration**
- ED ADM 6302**, Elementary School Administration
- ED ADM 6401**, School Staff Development and Supervision
- ELE ED 6411**, Curricular Issues in Elementary Schools
- *** **ED ADM 6900**, Internship

1.32 Secondary School Administration

ED ADM 6304, Secondary School Administration
ED ADM 6401, School Staff Development and
Supervision
SEC ED 6415, Secondary School Curriculum
***ED ADM 6900, Internship

* Required if student had no equivalent course at the undergraduate level.

** Exit course--must be taken during last semester of M.Ed. program.

*** Must be taken within the last 10 semester hours before completion of M.Ed. program.

Master of Education: Educational Administration with Emphasis in Community Education

This is a 32-credit hour program for students interested in community education.

Degree Requirements

2.10

ED FND 6421, Philosophy of Education
ED FND 6435, History of Western Education
Or

ED FND 4330, History of American Education
ED ADM 6202, Social Contexts of Education
ED FND 6422, Social Contexts of Education
ED ADM 6203, Political Contexts of Education
Total Required Sem. Hrs. Section 2.10 = 12

2.20 Research Core

ED ADM 6301, Educational Administration Policy
Research
ED REM 5730, Educational Statistics
Total Required Sem. Hrs. Section 2.20 = 6

2.30 Community Education

ED ADM 6601, Administration of Adult and Community
Education
ED ADM 6602, Programming in Community and Adult
Education
ED ADM 6900, Internship: Community Education
Total Required Sem. Hrs. Section 2.30 = 9

2.40 School Specialization**

2.41 Elementary School Administration

ED ADM 6302, Elementary School Administration
ELE ED 6411, Curricular Issues in the Elementary School
Total Required Sem. Hrs. Section 2.41 = 6

2.42 Secondary School Administration

ED ADM 6304, Secondary School Administration
SEC ED 6415, The Secondary School Curriculum
Total Required Sem. Hrs. Section 2.42 = 6
TOTAL Master of Educ-Community Educ = 33

*Exit Requirement--Taken within the last 9 semester hours of the M.Ed. program.

**Students take either section 2.41 or section 2.42, not both sections.

Competencies/Expectations/Outcomes that all students must demonstrate to complete the program successfully.

School Administrator candidates in the College of Education are held to the Interstate School Leaders Licensure Consortium's Standards for School Leaders (ISLLC)

1. A school administrator is an educational leader who promotes the success of all students by facilitating the development, articulation, implementation, and stewardship of vision of learning that is shared and supported by the school community.
2. A school administrator is an educational leader who promotes the success of all students by advocating, nurturing and sustaining a school culture and instructional program conducive to student learning and staff professional growth.
3. A school administrator is an educational leader who promotes the success of all students by ensuring management of the organization, operations, and resources for a safe, efficient, and effective learning environment.
4. A school administrator is an educational leader who promotes the success of all students by collaborating with families and community members, responding to diverse community interests and needs, and mobilizing community resources.
5. A school administrator is an educational leader who promotes the success of all students by acting with integrity, fairness and in an ethical manner.
6. A school administrator is an educational leader who promotes the success of all students by understanding, responding to, and influencing the larger political, social, economic, legal and cultural context.
7. A school administrator is an educational leader who promotes the effective use of technology to maximize student learning and efficiently manage school operations.

Master of Education in Adult & Higher Education

The M.Ed. in Adult & Higher Education is intended for 1) faculty and other educators who want to improve their adult teaching skills; 2) persons who occupy and seek to advance into administrative or management positions in a variety of educational settings; and 3) others who work with adults in a variety of agencies. The degree program includes courses in foundations, curriculum and teaching (including distance learning), organization and administration, research, and electives so that students can create an emphasis area to fit

their career goals. To help address student interests, special topic seminars are offered from time to time. An internship in the student's emphasis area is a required exit experience. Students elect either the adult education or higher education emphasis area.

Admission Requirements:

This degree program follows the policies of The College of Education and the Graduate School relating to admissions, academic standards, residency, transfer credit, time limitations, and thesis options (see Graduate Study in the Bulletin). The minimum number of hours required for the M.Ed. degree is 32 credit hours.

Education Requirements

Foundation Courses (12 hours required)

A course focusing on the learner

ADULT ED 6410, The Adult Learner (3) or
HIGHERED 6474, The College Student (3)

A course in historical foundations

ADULT ED 6411, History of Adult Education (3) or
HIGHERED 6477, History and Philosophy (3)

A course on the improvement of instruction

ADULT ED 6413, Improvement of Instruction in Adult
Education or

HIGHERED 6473, Curriculum in Higher Education (3) or
ED PSY 7647, Teaching for Learning in the University (3)

One of the following:

ADULT ED 6412, Philosophical Foundations of Adult
Education (3)* And

ADULT ED 6414, Curriculum Theory & Development in
Adult Education (3)*

HIGHERED 6476, Organization and Administration (3)

*Required for Adult Education

Adult and Higher Education Electives (12 hours minimum)

ADULT ED 4311, Teaching Basic Reading Skills to Adults
(3)

ADULT ED 4410, The Non-Traditional Adult Learner (3)

ADULT ED 6340, Comparative International Adult and
Higher Education (3)

ADULT ED 6416, Survey of Adult Distance Education (3)

ADULT ED 6417, Multicultural Issues in Adult Education
(3)

ADULT ED 6418, Assessment in the Adult Classroom (3)

ADULT ED 6230, Adult Learning and Development (3)

ADULT ED 6420, Survey of Human Resource
Development & Adult Ed (3)

ADULT ED 6424, Intervention Determination in Adult
Learning and Human Resource Development (3)

ADULT ED 6427, Improvement of Instruction in Teaching
Business Subjects (3)

ADULT ED 6432, Teaching in the Community College (3)

ADULT ED 6494, Directed Readings in Adult Learning (3)

ADULT ED 6497, Problems in Adult Education (3)

ADULT ED 6404, Seminar in Adult Education Research (3)

ADULT ED 6540, Comparative International Adult and
Higher Education (3)

HIGHERED 5401, Current Issues in Higher Education (3)

HIGHERED 5402, Student Affairs Administration (3)

HIGHERED 6404, Seminar (3)

HIGHERED 6405, Economics and Finance (3)

HIGHERED 6406, Governance of Higher Education (3)

HIGHERED 6420, Legal Aspects of Higher Education (3)

HIGHERED 6421, Legal Aspects of Postsecondary
Teaching (3)

HIGHERED 6422, Policy Analysis of Higher Education (3)

HIGHERED 6430, The Community College (3)

EDUC 6308, Foundations of Adult Basic Education (3)

ED ADM 6462, Programming in Adult and Community
Education (3)

ED PSY 6111, Psychology of Education (3)

ED TECH 5340, Selection and Utilization of Educational
Multimedia (3)

ED TECH 6415, Teaching and Learning with Technology:
Authoring Tools (3)

ED TECH 6416, Teaching and Learning with Technology:
Data Rep. Tools

ED TECH 6436, Computer-Mediated Communication in
Education (3)

ED TECH 6437, Distance Learning via Networks and
Telecommunications (3)

ED TECH 6452, Educational Multimedia Design (3)

ED TECH 6454, Instructional Video Production (3)

Research Course(s) (3-6 hours required)

ED REM 6710, Research Methods* (3)

ED REM 6707, Classroom Measurement and Evaluation (3)

ED REM 6709, Educational & Psychological Measurement
(3)

*Required for Higher Education

Exit Requirement (3 hours required)

One of the following taken during the last 9 semester hours
of the program

HIGHERED 6490, Internship or Thesis in Higher
Education (3)

ADU ED 6990, Internship in Adult Education (3)

Adult Basic Education Certification

***ADULT ED 4311**, Teaching Basic Reading Skills to
Adults

***ELE ED 6455**, Problems of Teaching Arithmetic in the
Elementary School or **ELE ED 4346**, Advanced Methods in
Elementary School Mathematics

*Eight semester hours from these six courses, and 3 hours of
adult education electives, in addition to SPEC ED 3313,
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 holder of a bachelor's degree from a four-year college or university.
 - 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:

- Hold a bachelor's degree from a four-year college or university.
 - Earn eight semester hours in DESE-approved adult education classes, institute 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 who have experience teaching adults, but do not have regular teacher certification. Information is available for professional certificates for full-time ABE teachers.

Learning Outcomes

The adult and HE student should demonstrate and/or have an understanding of:

- Integrating teaching, learning, and technology.
- Awareness of education and educational research as a lifelong process.
- The unique role of shared governance in post secondary institutions.
- The legal, social, and political contexts as it relates to organization and postsecondary institutions.
- Student learning and development, including learning communities and curricular issues.
- Exploring issues related to faculty.
- Critical inquiry, including, research courses and internships.
- Historical periods and historical adult and higher education educators.
- Characteristic issues associated with different historical periods. Role of adult education during various historical periods.
- Knowledge of the vast array of methods, techniques, devices, and research findings available for helping adults learn.
- Application of the various techniques for helping adult learners in their adult education programs.
- Philosophical perspective informing the field of adult education or higher education.

Graduate Certificate in Institutional Research

The Post-Master's Certificate in Institutional Research (CPIR) is for academics who want training in Institutional Research in preparation for working in an IR Office at a postsecondary institution, a government agency, or a private education organization. The program consists of 18 hours and may be taken as part of a doctoral program. Of the 18 hours, 12 are in the required core (6 hours are in research methods and 6 hours in IR seminars), plus a 3-hour Higher Education (HIGHERED) or an Educational Research (ED REM) elective and a 3-hour capstone. Students may transfer up to 5 hours of post-Master's work into the program with the approval of the advisor.

Course Descriptions

Adult Education (ADULT ED)

4410 The Non-Traditional Adult Learner (3)

An introduction to the non-traditional adult learner. At the completion of the course the students will be able to identify the characteristics of non-traditional adult learners and various theories of how they learn, as well as the implications of these characteristics and theories on adults.

6230 Adult Learning and Development (3)

Prerequisites: ED PSY 6210 or ED PSY 6111, or ADULT ED 6410. Same as ED PSY 6230. Study of how life stage theories and theories of learning pertain to adult learner. Research bases of these theories explored in relationship to instructional practice with adult learners.

6404 Seminar in Adult Education Research (1-10)

Prerequisites: ADULT ED 6410 or consent of instructor. A review of current research on various topics in the field of adult education. An in-depth study of these research topics will be conducted. Application to the field of adult education will be considered. Special focus will be placed on assessing and improving competency in educational, corporate and community settings.

6410 The Adult Learner (3)

This course is designed for those who help adults learn in a variety of settings. A study will be made of the characteristics of Adult Learners and various theories of how they learn, as well as the implications of these characteristics and theories for adult education research, programming, curriculum, planning, and instructional practice.

6411 History of Adult Education (3)

Prerequisites: ADULT ED 6410. A study of the historical foundation of adult education in America will include the major theorists and their contributions and the continuing education of the adult in a progressive social context.

6412 Philosophical Foundations of Adult Education (3)

Prerequisites: ADULT ED 6410 or consent of instructor. A comprehensive, systematic philosophical foundation for adult education. Exploration of philosophical underpinnings of various approaches to education of adults—role of learner, teacher, and objectives within each philosophy.

6413 Improvement of Instruction in Adult Education (3)

Prerequisites: ADULT ED 6410 or consent of instructor. A study of selected methods and instructional techniques appropriate for the teaching of adults. An examination of current research will be made as it relates to the problems of instructing adults.

6414 Curriculum Theory and Development in Adult Education (3)

Prerequisites: ADULT ED 6410 or consent of instructor. A study of curriculum theory and its application to adult education. Particular emphasis will be placed on the development of model curricula for various programs in adult education.

6416 Survey of Adult Distance Education (3)

Prerequisites: ADULT ED 6410. Survey of distance education covers concept, theories, history, present practice, delivery systems, major issues and directions of distance learning. Emphasis on research and practice in U.S.; however, since much of the literature in the field has been written by educators in other countries, the course will explore topics and issues in distance education from international perspective, identifying similarities and differences among countries as they relate to adult learning.

6417 Multicultural Issues in Adult Education (3)

Prerequisites: ADULT ED 6410. Discussion of cultural diversity from an adult education perspective. Topics include cultural self-awareness, challenges/issues in intercultural educational settings, theoretical perspectives of multicultural education, and practitioner concerns and strategies for implementing multiculturalism in Adult Education settings.

6418 Assessment in the Adult Classroom (3)

Prerequisites: ADULT ED (6) 6410 & ED REM 6707 or consent of instructor. This course addresses assessing how effectively adult educators are facilitating adult learning. Emphasis will be on knowledge and skills, learner characteristics, and learner reactions to instruction effectiveness in the adult classroom. Special attention will focus this assessment in the adult classroom within educational, corporate, community, and non-formal settings.

6420 Survey of Human Resource Development and Adult (3)

Prerequisites: Graduate standing and permission of instructor. Overview of fields of human resource development and adult education. Examines societal

contexts within which training of adults and organization development occur. Explores systems theory that frames a discussion of Adult Education, training, and organization development. Represents unique characteristics of each field as well as ways in which two fields come together, along with general concepts: definitions, philosophies, goals, sponsoring agencies, professional roles, processes, participants, and resources.

6424 Intervention Determination in Adult Learning and Human Resource Development (3)

Prerequisites: ADULT ED 6410. A variety of strategies will be studied with a view to examining systemic problems in workforce and adult learning situations. The determination of interventions for program planning and development is the major focus. As key outcomes for this course, learners will be able to design and develop plans and distinguish among workplace, community and educational needs that can be met with educational interventions and those that require other, and more appropriate, non-training solutions. While specifically focused on HRD applications, the content of this course will apply to any educational setting for adults.

6427 Improvement of Instruction in Teaching Business Subjects (3)

Prerequisites: Business Education certification or 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.

6432 Teaching in the Community College (3)

This course is designed for students considering a teaching career in the community college. The main emphasis of the course will be to expose students to the unique features of the community college with respect to the special goals of the institution, variety of degree and non-degree programs, and diversity of community college students. A second objective will be to offer a brief review of teaching techniques that will be useful in the community college classroom.

6494 Directed Readings in Adult Learning (1-6)

Prerequisites: Graduate Standing, ADULT ED 6410 and consent of instructor. Self-directed learning, as a key concept in Adult Education, is encouraged as a means of understanding the adult experience, both personally and professionally, and is a recognized core competency in the field of Adult Education. This course consists of supervised, independent study into the current research, literature, and issues in the area of Adult Learning. Learners are given the opportunity to meet with other learners and the instructor on a regular basis to share resources, ideas, and to gain feedback.

6497 Problems in Adult Education (1-10)

Prerequisites: ADULT ED 6410 or consent of instructor.
Independent study on topics in adult education.

6540 Comparative International Adult & Higher Education (3)

Prerequisites: ADULT ED 6410 or HIGHERED 6476. A study of lifelong learning as well as adult and higher education with a view to a more global understanding of educational systems. Selected western and non-western educational themes and issues will be viewed from the context of their respective cultures.

6990 Internship (1-10)

Prerequisites: ADULT ED 6410 or consent of instructor. Closely supervised experience in a field setting under the direction of a graduate faculty member. An appropriate level of competence and evidence of growth in the professional role must be demonstrated by the intern. The internship will include planning, research, evaluation, and related professional activities.

Educational Administration (ED ADM)

Prerequisites may be waived by consent of the department.

6201 Knowledge Contexts of Education Administration and Policy (3)

Prerequisites: Admission to masters, doctoral, and/or certification programs in Education Administration or consent of instructor. This course is a survey of the various views of knowledge that have influenced the nature of the organizational structures and policies of American educational institutions. The course is framed both by the purposes of American education and the scientific management movement of the first quarter of the 20th Century.

6202 Social Contexts of Education (3)

Prerequisites: ED ADM 6201, concurrent with ED ADM 6201, or consent of instructor. This course is a critical examination of different perspectives on the social structures within which education policies are constituted and their concomitant practices implemented.

6203 Political Contexts of Education (3)

Prerequisites: ED ADM 6201, concurrent with ED ADM 6201, or consent of instructor. This course is a critical examination of those aspects of local, state, and federal politics which significantly influence the political contexts within which education policies are constituted and their concomitant practices implemented.

6204 Economic Contexts of Education (3)

Prerequisites: ED ADM 6201, concurrent with ED ADM 6201, or consent of instructor. This course is a critical examination of those aspects of local, state, and national

economic structures which influence the nature of education policies and their concomitant practices.

6205 Legal Contexts of Education (3)

Prerequisites: ED ADM 6201, concurrent with ED ADM 6201 or consent of instructor. This course is a critical examination of both (1) local, state, and federal laws and (2) Western notions of justice within which education policies are constituted and their concomitant practices implemented.

6301 Education Administration Policy Research (3)

Prerequisites: Completion of at least twenty-four (24) credit hours towards the M.Ed. in Education Administration or consent of instructor. A study of issues and trends in basic, applied, and action research in educational policy making.

6302 Elementary School Administration (3)

Prerequisite: Completion of at least (15) credit hours of the M.Ed. in Education Administration or consent of instructor. This course is a comprehensive, systematic study of the elementary school principalship. Emphasis is placed on relating theories of learning, teaching, and organization to effective administration of elementary schools.

6303 Middle School Administration (3)

Prerequisites: Completion of at least (15) credit hours of the M.Ed. in Education Administration or consent of instructor. This course is a comprehensive, systematic study of the middle school principalship. Emphasis is placed on relating theories of learning, teaching, and organization to effective administration of middle schools.

6304 Secondary School Administration (3)

Prerequisites: Completion of at least (15) credit hours of the M.Ed. in Education Administration or consent of instructor. This course is a comprehensive, systematic study of the secondary school principalship. Emphasis is placed on relating theories of learning, teaching, and organization to effective administration of secondary schools.

6305 School District Administration (3)

Prerequisite: Enrolled in Advanced Certification program and/or consent of instructor. Course focuses on current research about school district administration; also deals with major central office issues including: board/ superintendent relations, central office organization, the function and authority of assistant superintendents and program directors, and the administrative team approach to school district administration.

6306 Special Education Administration (3)

Prerequisites: Completion of graduate degree in Special Education, Education Administration or consent of instructor. A study of organizational issues in special education and implications for practices and procedures. Specific attention will be given to special education delivery systems, compliance standards, funding sources, and regulatory standards.

6307 Integrated Curricula for Special Education Administrators (3)

Prerequisites: Graduate Standing. Development of skills to understand, supervise and evaluate the integration and differentiation of curriculum. Intended for special education administrators.

6315 Middle School Educational Philosophy (3)

Prerequisites: Graduate standing. An in-depth examination of the educational philosophy and historical basis of middle level schools, and the relationship between philosophy and middle school organizational practices. Includes a review of the research, organizational structures and current trends and practices.

6317 Supervision and the Middle School Child (3)

Prerequisites: Graduate standing. The unique developmental characteristics and needs of early adolescents are explored through a variety of supervisory activities involving middle level students, teachers and administrators. The implications of economic and ethnic diversity for middle level schools will also be addressed.

6401 School Staff Development and Supervision (3)

Prerequisite: ED ADM 6201, concurrent with ED ADM 6201, or consent of instructor. This course provides an examination of the conceptual bases and practical applications of staff development and supervision in educational settings. It explores relevant conceptual models presented as heuristic devices to consider a variety of administrative techniques to assess needs, plan, deliver, and evaluate staff development and supervision programs in schooling.

6402 School Personnel Administration (3)

Prerequisite: Advanced graduate standing and/or consent of instructor. This course is a comprehensive, systematic study of problems in planning, recruitment, selection, induction, and retention relative to school personnel.

6403 Problems in School Public Relations (3)

Prerequisites: Advanced graduate standing and/or consent of instructor. This course is an examination of a range of both traditional and critical perspectives relevant to home-school-community relations.

6404 Collective Negotiations in Educational Organizations (3)

Prerequisites: Advanced graduate standing and/or consent of instructor. This course focuses on the concepts, issues, and processes involved with collective negotiations (bargaining) in American educational organizations. The major issues addressed in the course include recognition procedures, bargaining unit determination, the scope of negotiations, the proposal and counterproposal, compromise, impasse procedures, and master contract management.

6407 School Staff Development & Supervision for Special Education Administration (3)

Prerequisites: Completion of graduate degree in Special Education, Education Administration or consent of instructor. This course provides an examination of the conceptual bases and practical application of staff development and supervision for special education settings for staffs serving special education students. It explores relevant conceptual models presented as heuristic devices to consider a variety of administrative techniques to assess needs, plan, deliver, and evaluate staff development and supervision programs serving students with special education needs.

6449 Using Technology in Administration Processes (3)

Prerequisites: A course in measurement, statistics or evaluation, or consent of instructor. Same as ED TECH 6449. This course will explore how the use of data analysis with technology can be applied in the administration of schools or other work settings. Administrators will explore software tools and their implications for making decisions. A case study will be completed on the implementation of a technology in a school or other appropriate setting.

6497 Problems (1-10)

6501 Principles of Public School Finance in Missouri (3)

Prerequisites: Advanced graduate standing and/or consent of instructor. Course is designed to analyze and study critical areas of public school finance at the local and state levels, highlighting the role of such factors as legislative procedures, principles of local and state support, budgeting and accounting procedures, assessment of property, etc.

6502 School Buildings and Sites (3)

Prerequisites: Advanced graduate standing and/or consent of instructor. This course deals with methods and procedures for (1) projecting the future building and facility needs of a public school district, (2) supervising actual planning and construction of educational facilities, (3) optimizing the use of current facilities, and (4) maintenance of buildings, grounds, and equipment.

6503 Organizational Change in Education (3)

Prerequisite: Advanced graduate standing and/or consent of instructor. This course deals with (1) developing strategies for assessing educational needs, (2) methods of assessing the school's organizational health, (3) the designing of educational change strategies involving theory-based models, (4) using systems-analysis techniques to implement educational change, and (5) methods of involving students and staff in incorporating meaningful organizational change strategies in educational institutions.

6504 Organizational Change in Special Education Administration (3)

Prerequisites: Advanced graduate standing and/or consent of instructor. This course deals with developing strategies for

assessing special educational needs, methods of district wide self-assessment of inclusive practices, the designing of educational change strategies involving theory based models, using collaborative-problem solving techniques to implement educational change, and methods of involving students and staff in incorporating meaningful organizational change strategies in special education.

6601 Administration of Adult and Community Education (3)

Prerequisites: Graduate standing and/or consent of instructor. A course designed to familiarize the student with the structure, purpose, and processes of community education with particular emphasis being placed on the administrative theories and functions of adult education.

6602 Programming in Community and Adult Education (3)

Prerequisite: ED ADM 6601 and/or consent of instructor. Study and analysis of basic situations in which community and adult educational programming take place. Within this framework, application will be made of a fundamental series of steps essential to sound educational programming.

6800 Education Policy Studies Seminar (1-6)

Prerequisites: Admission to doctoral program and consent of instructor. Intensive directed study of selected education policy issues.

6900 Internship (1-10)

Prerequisite: Consent of instructor. Closely supervised experience in a field setting under the direction of a graduate faculty member. An appropriate level of competence and evidence of growth in the professional role must be demonstrated by the intern. The internship will include planning, research, evaluation, and related professional activities.

7050 The Research Process I: Framing Research Questions Within the Education Literature (3)

Same as EDUC 7050. Prerequisites: Admission to the Ed.D. or Ph.D. in Education Programs. An overview of the essential elements of research proposals and familiarization with the techniques and tools used to identify important research questions within the education literature. Emphasis is placed on exploring the research literature and both framing and justifying research questions within that literature.

7150 Educational Inquiry (3)

Prerequisites: ED ADM 7050. This course is required for doctoral students in the Educational Administration program. The course supports the development of the student's individual research topic and explores options for methodological approaches to education policy and administration issues.

7250 The Change Process in Schools and School Districts (3)

Prerequisites: ED ADM 7050 and ED ADM 7150.

Advanced study of the literature pertaining to the theories of action and strategies for leading and sustaining change in schools and school districts. Emphasis is on the framing of research questions through the perspective of the literature on the change process in the schools.

7800 Education Administration Doctoral Seminar (1-6)

Prerequisites: Admission to doctoral program and consent of instructor. Intensive directed study of selected issues related to the administration of educational institutions.

Higher Education (HIGHERED)

5401 Current Issues in Higher Education (3)

Prerequisites: Graduate admission. Familiarizes student with nature and characteristics of American higher education--structure of higher education, roles played by various constituencies, and current issues.

5402 Student Affairs Administration (3)

Prerequisites: Graduate admission. Survey course in student personnel administration with emphasis on understanding college student and on learning ways to meet his/her academic and nonacademic needs.

6404 The Seminar (1-10)

Prerequisites: Graduate standing.

6405 Financial Issues in Higher Education (3)

Prerequisites: Graduate standing. Provides an overview of the state/federal funding mechanisms for higher education in the U.S. Addresses practices in budgeting at various types of postsecondary institutions.

6406 Governance of Higher Education (3)

Prerequisites: Graduate admission. Concentrates on study of unique system of governance in higher education, including faculty, institutional, system, and state governing mechanisms.

6408 Legal Issues in Student Affairs (3)

Prerequisites: Graduate Standing. Provides an exploration of the legal and philosophical principles that guide decision-making in higher education institutions and the courts. It also includes a detailed, in-depth analysis of legal cases that have an impact on students in private and public two- and four-year colleges and universities in the United States.

6409 Critical Issues in Student Affairs (3)

Prerequisite: Graduate standing. Explores the historical development and foundational theories of the student affairs profession. This course also explores the organization and management of programs and services, the formulation of policies that guide student personnel service programs, and

the integration of program elements, research, current problems and trends.

6420 Legal Aspects of Higher Education (3)

Prerequisites: Graduate admission. Examines legal rights and responsibilities of faculty, students, staff, and administrators. Includes fair employment, due process, affirmative action, and liability.

6421 Legal Aspects of Postsecondary Teaching (3)

Prerequisites: Graduate admission. Examines legal issues of interest to faculty. Areas include faculty (contracts, grievances/appeals/affirmative action, free speech, tenure) and student (disability, sexual harassment, academic integrity, free speech, classroom incivility, student behavioral standards, grades) issues.

6422 Policy Analysis of Higher Education (3)

Prerequisite: Graduate admission. Introduces students to the analysis of higher education public policy. Includes state and local policy analysis and examination of legislative history of major federal higher education laws.

6430 The Community College (3)

Prerequisites: Graduate admission. Develops an understanding of the two-year college--its past, present, and future. Examines history, operations, funding, internal constituents, curricular mission, societal role, and current issues.

6431 Community College Leadership (3)

Prerequisites: Graduate admission. Introduces students to leadership theory and practice and the literature of leadership development. Applies theory and practice to the unique role of the leader in community colleges, including the community college presidency. Particular emphasis is given to the diverse roles expected of the successful leader in today's community college.

6432 Current Issues in Community College Education (3)

Prerequisites: Graduate admission. A review and analysis of current issues affecting community college students, instruction, administration, policy and community relations. HIGHERED 6430, *The Community College*, is recommended before taking this course for those not currently working in community college settings.

6435 The International Community College (3)

Prerequisites: HIGHERED 6430. Exploration of the development of systems of post secondary education throughout the world that mirror all or parts of the mission of the community college system in the United States. The course takes a comparative approach to examining the history, philosophy, structure, curriculum and student characteristics of these international systems, using the American system as a point of reference.

6440 Issues in Institutional Research I (3)

Prerequisites: Graduate standing. Provides a history and overview of institutional research in postsecondary education. Other areas of interest include student issues, student outcomes, higher education funding, productivity funding, and legal issues.

6441 Issues in Institutional Research II (3)

This course provides the study of key issues in institutional research, including faculty workload and salary, program assessment, fact books, peer institutions, national databases, and strategic planning.

6473 Curriculum in Higher Education (3)

Prerequisites: Graduate standing and/or consent of instructor. The development, implementation, and assessment of curriculum in higher education as well as historical and philosophical perspectives; major figures and emerging trends are included.

6474 The College Student (3)

Prerequisites: Graduate standing and/or consent of instructor. A comprehensive overview of the theories and research related to college and university student development. Particular attention is given to student demographics, patterns of growth and development, and attitudinal changes.

6476 Organization and Administration of Higher Education (3)

Prerequisites: Graduate standing and/or consent of instructor. This course includes the study of the missions, governance, and organizational structures of American higher education institutions. Within this context, particular attention is given to administrative roles, responsibilities, and issues of leadership.

6477 History and Philosophy of American Higher Education (3)

Prerequisites: Graduate standing and/or consent of instructor. This course is a systematic study of the historical and philosophical contexts that have conditioned the evolution of American higher education. Particular attention is given to significant events, trends, and movements within American higher education.

6497 Problems (1-10)

Prerequisites: Graduate standing and/or consent of the instructor.

6900 Internship (1-10)

Prerequisites: Graduate standing and/or consent of the instructor. Closely supervised experience in a field under the direction of a graduate faculty member. An appropriate level of competence and evidence of growth in the professional role must be demonstrated by the intern. The internship will include planning, research, evaluation, and related professional activities.

6930 International Community College Internship (3)

Prerequisites: HIGHERED 6430 and consent of instructor.

Supervised experience in an international community college setting under the direction of a graduate faculty member will include planning, research, evaluation, and related professional activities. Participants will be expected to both provide administrative or instructional assistance to the host college, and complete research related to the setting and experience.

7800 Higher Education Doctoral Seminar (1-6)

Prerequisites: Doctoral standing and/or consent of instructor.

Intensive directed study of selected issues related to the administration of higher education institutions.

Division of Educational Psychology, Research and Evaluation

Faculty

Matthew W. Keefer, Associate Professor and Chair
Ph.D., University of Toronto
Wolfgang Althof, Theresa Fischer Endowed Professor of
Citizenship Education, Dr. Phil., University of Fribourg and
Dr. Phil. Habil, Carl-Von-Ossietzky
Marvin W. Berkowitz, Sanford N. McDonnell
Professor of Character Education
Ph.D., Wayne State University
Thomas E. Jordan, Curator's Professor of Child
Development, Professor Emeritus
Ed.D., Indiana University
William L. Franzen, Professor, Dean Emeritus
Ph.D., University of Wisconsin
Michael W. Bahr, Associate Professor
Ph.D., Indiana University
Brenda Bredemeier, Associate Professor
Ph.D., Temple University
Margaret W. Cohen, Associate Professor
Associate Provost Academic Affairs, Director,
Center for Teaching and Learning
Ph.D., Washington University
Cody S. Ding, Associate Professor
Ph.D., University of Minnesota
Lisa M. Dorner, Assistant Professor
Ph.D., Northwestern University
Michio Kyle Matsuba, Assistant Professor
Ph.D., University of British Columbia (UBC)
Clark J. Hickman, Associate Research Professor and
Associate Dean for Continuing Education
Ed.D., University of Missouri-St. Louis
Donald A. Gouwens, Assistant Clinical Professor
Psy.D., Central Michigan University

General Information

Faculty in the Division of Educational Psychology, Research, and are housed on the fourth floor of Marillac Hall. Information about course offerings may be obtained in the division office, 402 Marillac Hall.

At the undergraduate level, the division coordinates educational psychology and measurement courses required in the various B.S. in education degree programs.

At the graduate level, the division offers courses in educational psychology and in educational research and evaluation methods required in the various M.Ed. degree programs and in the doctoral programs.

Students choosing to pursue a Ph.D. in education may elect an emphasis in educational psychology. The Missouri certificate in school psychology is coordinated through this division.

Educational Specialist in School Psychology

The Educational Specialist in School Psychology (Ed.S.) degree program at the University of Missouri-St. Louis provides training in data-based problem solving with particular attention to interventions and educational outcomes within a cognitive-behavioral theoretical perspective. The program promotes a unique set of professional values through its emphasis on:

- Data based decision making
- Educational and psychological treatment outcomes
- Multicultural diversity
- Program development and evaluation
- Facilitation of organization change

The Ed.S. is a terminal degree program designed to prepare future school psychologists to work in school settings. Graduates of the program are immediately eligible for School Psychologist Certification from the Missouri Department of Elementary and Secondary Education and are qualified to apply for the National Certified School Psychologist credential from the National Association of School Psychologists.

Student Learning Outcomes

The Educational Specialist in School Psychology degree program at the University of Missouri–St. Louis has five primary program emphases that make our graduates distinctive. The following outcomes guide the training and preparation of our students.

I. Data-Based Decision Making

A. Students will acquire knowledge of a variety of assessment models and methods that enable them to develop skills in collecting, analyzing, and interpreting data for the purpose of making recommendations to improve the academic performance and/or social-emotional development of children and adolescents with whom they work.

II. Educational and Psychological Treatment Outcomes

A. Students will gain knowledge of and develop skills for a wide-range of treatments to promote academic performance and social-emotional behavior.

III. Program Development and Evaluation

A. Students will gain knowledge and skills of a variety of interventions and research methodologies that enable them to develop, implement, and evaluate school-based programs designed for children and adolescents.

IV. Multicultural Diversity

A. Students will acquire knowledge of identity development that facilitates the development of skills to work with students and families from diverse groups, thereby engaging in culturally-competent practice.

V. Facilitation of Organizational Change

A. Students will acquire an understanding of the complexity of educational systems and how school psychologists can promote systemic changes to improve service for children and adolescents.

The Ed. S. in School Psychology degree program consists of 60 hours of graduate coursework that prepares school psychologists for professional roles as data-based problem solvers. In addition to courses in psychological and educational foundations, assessment, and direct interventions, a primary emphasis within the program is upon prevention and early intervention of academic, behavioral, and social-emotional problems through consultation, interdisciplinary collaboration, and systems-level interventions. Throughout the program, including 500-hours of supervised practicum and a year-long 1,400 hour internship in the schools, students work closely with the school psychology faculty and field-based supervisors to develop practical skills.

Admission requirements include a 3.0 undergraduate GPA, current GRE scores (combined verbal and quantitative score of 1000 recommended), two letters of recommendation, a personal statement describing professional goals (not to exceed five double-spaced typed pages), and a personal interview with members of the school psychology faculty. Prerequisite coursework in developmental psychology and statistics is required for admission. Conditional acceptance into the program may be granted pending completion of prerequisites and/or satisfactory progress in the program (i.e., 3.0 graduate GPA) for students who lack prerequisites or do not quite meet the admission requirements. All required application materials will be considered equally when making admission decisions. Applications are reviewed annually with a **March 1** deadline.

The Ed.S. in School Psychology degree program involves three years of intensive, full-time training; however, students may be able to complete up to half of the curriculum on a part-time basis provided they satisfy the university residency requirement. Credit may be granted for graduate coursework completed prior to entering the program, but a minimum of 30 graduate credit hours must be completed at the University of Missouri-St. Louis. Students who plan to enroll in the Ed.S. in School Psychology degree program as a part-time student are advised to meet with their adviser and develop a professional education plan at the start of their program. Please note the internship year involves a full-time placement with a school district during an academic school year and cannot be completed part-time.

Educational Specialist in School Psychology (Ed.S.)

Curriculum:

Fall I

ED PSY 6210, Life Span: Individual and Family Development

ED PSY 6530, Foundations of School Psychology

ED REM 6716, Psychoeducational Assessment and Intervention I

ED REM 6750, Advanced Research Design in Education

Spring I

ED PSY 6310, Psychology of Learning Processes

ED PSY 6550, Professional Issues in School Psychology

ED REM 6718, Psychoeducational Assessment and Intervention II

ED REM 7771, Quantitative Research Methods I

Summer I

CNS ED 6010, Theories of Counseling

ED PSY 6532, Psychoeducational Differences

Fall II

ED PSY 6536, Biological Bases of Behavior

ED PSY 6540, Psychoeducational Interventions

ED PSY 6545, Consultation in Schools and Related Settings

ED PSY 6590, School Psychology Practicum I

Spring II

ED PSY 6542, Psychotherapeutic Interventions in School Psychology

CNS ED 6030, Foundations for Multicultural Counseling

ED REM 6730, Educational Program Evaluation

ED PSY 6591, School Psychology Practicum II

Fall III

ED PSY 6991, School Psychology Internship

Spring III

ED PSY 6991, School Psychology Internship

(Praxis II School Psychology Examination and Case Study)

Courses in this section are grouped as follows:

Educational Psychology (ED PSY)

Educational Research and Evaluation Methods (ED REM)

Educational Psychology (ED PSY)

Course Descriptions

Educational Psychology (ED PSY)

2212 Introduction to Learners and Learning (3)

Prerequisite: PSYCH 1003. Same as TCH ED 2212

Foundational study of the development of infants, children

and adolescents focusing on the role of appropriate educational environments in fostering positive physical, cognitive, social, and moral outcomes. Reading relevant research will be combined with experiences in the field and technology-based assignments to investigate both biological and sociocultural forces that shape the development process. A minimum of 10 field experience hours required.

3312 The Psychology of Teaching and Learning (3)
Prerequisites: TCH ED 2210, TCH ED 2211, TCH ED 2212 or equivalents and admission to Teacher Education program. Same as TCH ED 3312. 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. Includes a field experience.

6030 Instruction, Learning and Assessment (3)
Prerequisites: Admission into Graduate School. Same as TCH ED 6030. Uses learning as the basis for the design of classroom instruction. By applying learning theories, teachers can improve their own unit development, lessons plans, assessment strategies, and the use of technology for effective teaching. Deals with the impact of cognitive educational research on the subject content and what is known about how people learn. Teachers will learn to critically evaluate and improve their own educational practices, design principled and appropriate assessments based on their instructional goals, and to assess their own professional development.

6109 Learning & Development in Secondary School Settings (4)
Prerequisites: Graduate standing and admission to the secondary teacher education program. Investigation of teaching and learning theories and research on the developmental needs of pre-adolescent and adolescent students. Issues of cognition, moral and social development, motivation, and assessment will be analyzed and debated. Emphasis will be on theoretical and practical approaches to constructing and analyzing a learning system. Includes field experiences.

6111 Psychology of Education (3)
Current psychological theories and research that guide inquiry and decision making in education. Topics surveyed include behavior, development, learning, instruction.

6113 Psychopathology and Diagnosis (3)
Prerequisites: Graduate standing. Covers etiology, assessment and diagnosis of mental disorders using contemporary diagnostic systems. Course materials and assignment address the dynamics of adjustment and treatment implications for counselors, school psychologists, and others in the helping professions.

6115 Personality and Social Development (3)
Prerequisites: Graduate admission. A foundational course integrating major theoretical perspectives on personality and social development. Emphasis is on the dynamic interplay of social influences on personality development and personality influences on social processes. Particular consideration is given to the impact of social contexts, including the school, on development.

6210 Life-Span: Individual and Family Development (3)
Prerequisites: Graduate standing. Critical analysis of theories of human development including readings from empirical research and cross-cultural comparisons focusing on strategies to enhance developmental outcomes through relationship and environmental opportunity.

6215 Psychology of Early Childhood Development (3)
Prerequisite: ED PSY 6111 or consent of instructor. A survey of the theories, concepts, and research which inform the field of early childhood development to help caregivers and teachers understand the cognitive, social, and emotional changes that take place from birth through the primary years of schooling.

6217 Foundations of Citizenship Education (3)
Prerequisites: Graduate standing. Introduction to citizenship education providing a range of knowledge of civic participation, concepts of democracy, the democratic purposes of education, and the developmental of civic identity and political thinking, attitudes, and engagement. Comparison of historical and contemporary approaches to democratic citizenship.

6218 Coaching Sports for Character (3)
Prerequisites: Graduate Standing. Interdisciplinary examination of relevant theory, research and pedagogical practices related to character development through sports. Drawing from both academic and professional.

6220 Psychology of the Elementary School Child (3)
Prerequisite: ED PSY 6111 or consent of instructor. Current research on the psychological changes which occur during the school age years of childhood. Includes attention to how development proceeds and to the processes that may alter its progress.

6225 The Psychology of Adolescence (3)
Prerequisite: ED PSY 6111 or consent of instructor. Current research on the psychological changes which occur during adolescence. Attention is paid to the family, school, peer groups, and contemporary settings that practitioners must understand to help young people meet the psychosocial challenges of adolescence.

6310 Psychology of Learning Processes (3)

Prerequisite: ED PSY 6111. Advanced study of learning of instructional practice and instructional theories. The historical and theoretical bases are examined.

6404 Seminar (1-10)

6417 Current Perspectives on Citizenship Education (3)

Prerequisites: ED PSY 6217. Seminar extends students' understanding of theory and research in citizenship education by applying it to practical programs in the US and abroad. Analysis of assumptions underlying methods of citizenship education and its goals. Exploration of research on methods that promote, facilitate, or inhibit civic participation and citizenship competence.

6440 Moral Development and Education (3)

Prerequisites: ED PSY 6210 or ED PSY 6220 or ED PSY 6225 or consent of the instructor. An introduction and overview of moral psychology and its implications for creating learning environments. Questions of human morality are by nature cross-disciplinary, and readings and discussions will involve questions of epistemology, human nature, conceptions of "the good life," evidence for the malleability of human development, and research regarding the foundation, nature, and complexity of moral development.

6444 Cognition and Technology (3)

Prerequisites: ED PSY 6111 or consent of instructor. Same as ED TECH 6444. Examines cognitive theories and computer-based tools for learning. Students will gain a critical understanding of the relationship between the design of technological tools, the use of those tools in educational settings, and their implications for learning.

6445 Character Education and Development (3)

Prerequisites: ED PSY 6111 and ED PSY 6220 or ED PSY 6225. Critical survey of theories of character development and models for character education in childhood and adolescence. Includes empirical and conceptual study of the nature of moral character, how it develops, and how it can be fostered in schools.

6448 Technology-Supported Inquiry Learning (3)

Prerequisites: ED TECH 5340 & ED PSY 6310, or consent of instructor. Same as ED TECH 6448. Educational technology such as networked computers and software can play a supportive role in inquiry-based learning. Students will explore the theoretical background, design issues, and pragmatic realities of technology-supported inquiry learning environments. Such learning environments are best understood as systems involving social, cultural, material and psychological aspects. Consideration will be given to the important properties of settings, activities and technologies, as well as to the role of instructors.

6450 Advanced Methods in Character Education (3)

Prerequisite: ED PSY 6445. Advanced exploration of methods for promoting character development in schools: class meetings, democratic processes, cross-age learning and character curriculum development. Methods will be critically examined for their empirical and theoretical justifications.

6497 Problems (1-10)

6530 Foundations of School Psychology (3)

Prerequisites: Graduate standing. Examines the professional roles, responsibilities, and functions of psychologists in schools. Focuses on educational foundations of school psychology including the history of the profession, organization and operation of schools, and emergent technologies.

6532 Psychoeducational Differences (3)

Prerequisite: Graduate standing. Examination of classification systems used with children and adolescents in the diagnosis and treatment of educational and physical disabilities, mental disorders, and other developmental challenges.

6534 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.

6536 Biological Bases of Behavior (3)

Prerequisite: Graduate standing. Examination of biological factors affecting human behavior. Includes an overview of neuroscience, developmental psychophysiology, and basic psychopharmacology. Implications for psychological and educational interventions are considered.

6540 Psychoeducational Interventions (3)

Prerequisites: ED REM 6716 and ED PSY 6532 or consent of instructor. Examines academic and instructional interventions, both preventive and remedial, that are delivered in schools and related settings with children and adolescents. Emphasizes linking assessment and intervention via use of direct and indirect service delivery.

6542 Psychotherapeutic Interventions in School Psychology (3)

Prerequisites: ED PSY 6532 and ED REM 6718 or consent of instructor. Instruction and practice developing and implementing intervention plans for common social, emotional, and behavior problems found in schools and related settings. Special emphasis on prevention and early intervention within a systems perspective.

6545 Consultation in Schools and Related Settings (3)
Prerequisite: ED PSY 6530 or CNS ED 6000 or consent of instructor. An examination of theoretical principles, research, and legal and ethical issues as applied to consultation practices in schools and related settings.

6550 Professional Issues in School Psychology (3)
Prerequisites: ED PSY 6530. Advanced examination of professional issues facing school psychologists including legal and ethical considerations, standards of practice, models of service delivery, and emergent technologies.

6590 School Psychology Practicum I (3)
Prerequisites: Grade of B or better in ED REM 6718 and ED PSY 6532, and consent of instructor. Introductory supervised experience in psychoeducational assessment, and interventions for academic and behavior problems in schools and related settings. Settings and responsibilities determined in consultation with program faculty and site supervisor.

6591 School Psychology Practicum II (3)
Prerequisites: Grade of B or better in ED PSY 6590 and consent of instructor. Advanced supervised experience in consultation, problem solving, psychoeducational assessment and interventions for academic and behavior problems in schools and related settings. Settings and responsibilities determined in consultation with program faculty and site supervisor.

6990 Internship (1-10)
Prerequisite: Consent of instructor. Closely supervised experience in a field setting under the direction of a graduate faculty member. An appropriate level of competence and evidence of growth in the professional role must be demonstrated by the intern. The internship will include planning, research, evaluation, and related professional activities.

6991 School Psychology Internship (3)
Prerequisites: Grade of B or better in ED PSY 6591 and consent of instructor. Full-time field-based placement in an approved school or educational setting supervised by an appropriately credential school psychologist. Course may be repeated for credit.

7640 Changing Perspectives in Educational Psychology (3)
Prerequisites: ED PSY 6111 and doctoral standing or consent of instructor. The advanced exploration of foundational issues in educational psychology. Topics include theoretical perspectives of modes analysis used in the investigation of psychological theories and concepts in education.

7642 Sociocultural Perspectives in Education (3)
Prerequisites: Doctoral standing or consent of instructor. Investigation of sociocultural theory with a focus on educational applications. Topics include the social formation of mind, language as cultural tool, methodological issues in social science research, and dialogic inquiry as pedagogy.

7644 Motivation Theory in Education (3)
Prerequisites: ED PSY 6111 and doctoral standing or consent of instructor. Focuses on the social and cognitive aspects of contemporary theories of motivation and examines supporting research. Participants will apply theory to settings of teaching and learning, training, and counseling relevant to their interests.

7647 Teaching for Learning in the Univ. (3)
Prerequisites: Graduate standing and consent of the instructor. An examination of current research in learning, motivation, and assessment as it pertains to teaching and learning in post-secondary settings. Designed to guide graduate students to promote active and meaningful learning in college classrooms to develop college students' critical thinking skills. Graduate students across the disciplines may enroll.

Educational Research and Evaluation Methods (ED REM)

3721 Psychoeducational Assessment and Evaluation (3)
Prerequisite: None. Review of measurement concepts and use of psychoeducational assessment data gathered via interview, observation, norm-referenced, and curriculum-based assessment methods. Special emphasis on progress monitoring and data-based decision making.

5730 Educational Statistics (3)
Prerequisite: Meet the university standard for proficiency in basic mathematical skills. Statistical methods for advanced undergraduate and beginning graduate students: descriptive statistics, probability and sampling, and introduction to hypothesis testing and inferential statistics.

6040 Educational Research for Teachers (3)
Prerequisites: Completion of TCH ED 6010 and TCE ED 6020. This course provides the basic knowledge and skills needed by educators to understand and engage in educational research. Educators will learn and use both analytic and practical tools for studying teaching, learning, and assessment in educational contexts, including their own classroom.

6497 Problems (1-10)
Prerequisites: At least one previous ED REM course and consent of course supervisor. Individual study on topics pertaining to educational measurement, evaluation, statistics, and research design.

6705 Evaluation of Data Analysis Programs (3)

Prerequisite: Graduate admission and an introductory statistics course or consent of instructor. Principles and procedures for assessing the quality and effectiveness of data analysis computer programs and packages in educational research. Review and evaluation of various computer programs and packages used in educational research.

6707 Classroom Measurement and Evaluation (3)

Prerequisites: Graduate admission or consent of instructor. An introductory graduate course to classroom testing and evaluation. Topic areas include comparison of criterion- and norm-, validity and associated descriptive statistics; derived referenced theory and technique; classical test theory, reliability and transformed scores; preparation of instructional objectives for use in developing the classroom test; performance evaluations, and portfolio rubrics.

6709 Educational and Psychological Measurement (3)

Prerequisite: Graduate admission or consent of instructor. An introductory graduate course in testing and measurement theory: reliability, validity, and associated descriptive statistics; correlation and simple regression; derived and transformed scores; interpretation of test scores; measurement of aptitude, vocational interests, and personal-social adjustment.

6710 Educational Research Methods and Design (3)

Prerequisite: An introductory statistics course or ED REM 6707, or 6709, or consent of instructor. An introductory course in educational research methodology: comparison of various types of qualitative and quantitative educational research, threats to internal/external validity, sampling methods, data analysis, and components of research reports.

6712 Survey Research Methods in Education (3)

Prerequisite: An introductory statistics course and ED REM 6710 or consent of instructor. Same as POL SCI 6406 and SOC 5432. A course on the principles and procedures for conducting survey research. Topics include forming questions and scales, survey design, sampling methods, data preparation and analysis, and presentation of results.

6714 Action Research in Education (3)

Prerequisite: ED REM 6710 or consent of instructor. A course that engages the participants in systematic qualitative inquiry into their own practice: framing appropriate questions; gathering and interpreting data; analyzing culture, subjectivity and multiple perspectives; and reporting the results ("telling the story"). Readings will address the methods, politics, and ethics of action research. Enrollment requires access to a field setting.

6716 Psychoeducational Assessment and Intervention I (3)

Prerequisite: Graduate standing. Instruction in the administration, scoring, interpretation, and reporting of results of individual and group tests of psychomotor ability,

academic achievement, and oral language skills. Special attention given to linking assessment to intervention.

6718 Psychoeducational Assessment and Intervention II (3)

Prerequisites: Grade of B or better in ED REM 6716 or CNS ED 6050, and consent of instructor. An advanced assessment course in the administration and use of individual tests of cognitive abilities, diagnostic interviewing, adaptive behavior, and social-emotional behavior assessment with an emphasis on writing integrated reports with meaningful recommendations linking assessment to intervention.

6730 Educational Program Evaluation (3)

Prerequisites: Admission to doctoral education and ED REM 6710 or consent of instructor. A course on the principles and procedures for assessing the quality and effectiveness of programs, projects, and materials related to planned interventions and system changes in educational settings.

6732 Advanced Theory and Practice in Educational Program Evaluation (3)

Prerequisites: ED REM 6730 or consent of the instructor. Extension of the principles, attributes, and practices of program evaluation to contemporary problems and settings. Study will include the comparison of examples of the program evaluation process. Focus will be on adherence to the Program Evaluation Standards endorsed by leading professional research and evaluation associations.

6735 Statistical Analysis for Education Research (3)

Prerequisites: Graduate standing. Provides students with a fundamental and intermediate understanding of quantitative methods and their relationship to social science research in education. This course is designed to provide statistical background to students who will pursue advanced degrees in education. Students will conduct lab data analysis based on the topics covered in the class and learn how to generate specific research questions and conduct basic statistical analyses

6750 Advanced Research Design in Education (3)

Prerequisites: ED REM 6735 or consent of instructor. This course is designed to provide students with a thorough background in the fundamental principles of research design in education, and the knowledge and skills necessary to design and carry out studies appropriate to a wide variety of research problems. It focuses on tailoring the research design and methodology to most effectively

address the problem or issue of concern, including qualitative, quantitative, and mixed-method designs. This is an experiential course designed around active discussion by students each week, and requires each student to develop a detailed research proposal for conducting a study to examine an appropriate educational research problem.

6990 Internship (1-10)

Prerequisite: Consent of instructor. Closely supervised experience in a field setting under the direction of a graduate faculty member. An appropriate level of competence and evidence of growth in the professional role must be demonstrated by the intern. The internship will include planning, research, evaluation, and related professional activities.

7711 Advanced Test Theory in Education (3)

Prerequisite: Admission to doctoral education and ED REM 6707, or ED REM 6709, 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 in the development and analysis of test structure and validity; introduction to item response theory for the improvement of educational testing and research.

7712 Discourse Analysis in Education (3)

Prerequisites: Admission to a Doctoral Program or consent of instructor. The role of language in social life is a paramount concern to educational researchers. The purpose of this course is to introduce students to theories and methods of discourse analysis. Students will become familiar with the methods used in conversation analysis, critical discourse analysis and mediated or multimodal discourse analysis. Topics include transcription theory and practice, the role of context in discourse analysis, the ethics of representation and the place of action in discourse analysis. Students will engage with the theories and methods for analyzing educational interactions such as small-group discussion, educational documents, classroom scenes, in-depth interviews, and naturally occurring conversations.

7771 Quantitative Research Methods I (3)

Prerequisites: Admission to doctoral education and ED REM 6710 or consent of instructor. An advanced educational research methods course: hypothesis testing using factorial analysis of variance; analysis of covariance; and the general linear model.

7772 Quantitative Research Methods II (3)

Prerequisite: ED REM 7771 or consent of instructor. An advanced educational research methods course; multivariate analysis of variance; canonical correlation, discriminate function analysis, factor analysis; cluster analysis, advanced topics in multiple linear regression; and associated research design issues.

7773 Quantitative Research Methods III (3)

Prerequisite: ED REM 7772. An advanced educational research methods course using multiple linear regression models, path analysis, and structural equation modeling. Focus is on the theory, issues, and application of these advanced data analysis techniques.

7781 Qualitative Methods in Educational Research I (3)

Prerequisites: Admission to doctoral education and EC REM 6710 or consent of instructor. An introductory qualitative research methods course in education to develop skill in forming research questions, writing field notes, and collecting, organizing, and analyzing a variety of data. Philosophical and ethical issues in qualitative research are presented.

7782 Qualitative Methods in Educational Research II (3)

Prerequisite: ED REM 7781 or consent of instructor. An advanced qualitative educational research methods course to address the issues of sampling strategies, observational and interview techniques, and data analysis. Requires access to a field setting to conduct a qualitative research study.

Division of Teaching and Learning

Faculty

Joseph L. Polman, Associate Professor, Chair
Ph.D., Northwestern University
Carl Hoagland, Emerson Electric Company Professor in
Technology and Learning
Ed.D., University of Massachusetts
William C. Kyle, E. Desmond Lee Family Professor of
Science Education
Ph.D., University of Iowa
Louis Lankford, Des Lee Foundation Endowed Professor in
Art Education
Ph.D., Florida State University
Robert Nordman, E. Desmond Lee and Family Fund
Endowed Professor
M.M. Saint Louis Conservatory of Music
Wendy Saul, Dr. Allen B. and Mrs. Helen S. Shopmaker
Endowed Professor for Education in collaboration with
Springboard to Learning
Ph.D., University Wisconsin-Madison
James Shymansky, E. Desmond Lee Family Professor of
Science Education
Ph.D., Florida State University
James Wilson, E. Desmond Lee Endowed Professor in
Experiential and Family Education
Ph.D., Iowa State University
Richard W. Burnett, Professor Emeritus
Ed.D., Indiana University
Richard J. Friedlander, Professor
Ph.D., University of California-Los Angeles
Charles Granger, Professor
Ph.D., University of Iowa
Kathleen M. Haywood, Associate Dean for Graduate
Education, Professor
Ph.D., University of Illinois-Urbana-Champaign
Wallace Z. Ramsey, Professor Emeritus
Ed.D., University of Missouri-Columbia
Helene J. Sherman, Associate Dean, Professor
Ed.D., University of Missouri-St. Louis
Blanche M. Touhill, Professor; Chancellor Emerita
Ph.D., Saint Louis University
Paul D. Travers, Professor Emeritus
Ed.D., George Peabody College
Doris A. Trojcek, Professor Emerita
Ed.D., Indiana University
Harold E. Turner, Professor Emeritus
Ed.D., George Peabody College
Douglas Turpin, Professor Emeritus in Music Education
Ed.D., Washington University
Judith Walker de Felix, Professor, Associate Provost
Academic Affairs; Dean of Graduate School
Ph.D., University of Florida
Huber M. Walsh, Professor Emeritus
Ed.D., University of California-Los Angeles
Fred Willman, Professor
Ph.D., University of North Dakota

Jane Zeni, Professor Emerita
Ed.D., University of Missouri-St. Louis
Bruce A. Clark, Associate Professor Emeritus
Ph.D., University of Illinois
Kevin Fernlund, Associate Professor
Ph.D., University of New Mexico
Harold Harris, Associate Professor
Ph.D., Michigan State University
Thomas J. Loughrey, Associate Professor
Ph.D., University of Iowa
Virginia L. Navarro, Associate Professor
Ph.D., Washington University
Rebecca Rogers, Associate Professor
Ph.D., University of Albany-SUNY
Charles G. Smith, Associate Professor; Athletic Director
Emeritus, M.S., Washington University
Kim Song, Associate Professor
Ed.D., Southern Illinois University-Edwardsville
Gwendolyn Turner, Associate Professor
Ed.D. University of Arkansas
Cathy Vatterott, Associate Professor
Ph.D., Saint Louis University
Laura Westhoff, Associate Professor
Ph.D., Washington University
Gayle Wilkinson, Associate Professor
Ed.D., University of Illinois
George J. Yard, Associate Professor Emeritus
Ph.D., Saint Louis University
Alina Slapac, Assistant Professor
Ph.D., University of Northern Iowa
Karen Cumming, Assistant Professor
Ed.D., University of Illinois at Urbana-Champaign
Martille Elias, Assistant Professor
Ph.D., University of Missouri-Columbia
Gooyeon, Kim, Assistant Professor
Ph.D., University of Georgia
Jacquelyn A. Lewis-Harris, Assistant Professor
Ph.D., Washington University
Lori Newcomer, Assistant Professor
Ph.D., University of Missouri-Columbia
Nancy Robb Singer, Assistant Professor
Ph.D., University of Missouri-St. Louis
Alina Slapac, Assistant Professor
Ed.D., University of Northern Iowa
Eric D. Turley, Assistant Professor
Ph.D., University of Nebraska-Lincoln
Sheridan Wigginton, Assistant Professor
Ph.D., University of Missouri-Columbia
Lynn Navin, Lecturer; Director, University Child
Development Center
M.Ed., Michigan State University
Debra Childs, Lecturer
M.Ed., Wright State University
Margaret Ann Niederberger, Lecturer
M.Ed., Lindenwood University
Diane Scollay, Lecturer; Director, Gateway Writing Project
M.Ed., MA English, University of Missouri-St. Louis
Carol Weber, Lecturer
M.Ed., University of Missouri-St. Louis

General Information

The faculty of the Division of Teaching and Learning has their offices on the 2nd and 3rd floors in Marillac Hall and in the Mark Twain Building. Information about course offerings and related matters on all programs except physical education may be obtained in 369 Marillac Hall. The physical education offices are located in 234 Mark Twain Building.

The division coordinates programs leading to a Bachelor of Science (B.S.) in Education degree in:

Early Childhood Education
Elementary Education
Physical Education
Secondary Education
Special Education

And the Bachelor of Educational Studies (B.E.S.) degree in:

Early Childhood Education
Professional Education

Programs leading to the M.Ed. in elementary education, secondary education, and special education also are coordinated in the Division of Teaching and Learning.

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 course work to receive certification.

The **elementary education** program prepares students to teach in grades one through six. Students may 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 and findings of research and the underlying processes that influence their professional practice.

Students may choose a program leading to the M.Ed. in education, generalized or specialized elementary education

or elementary education with Missouri certification in reading.

The **physical education** program coordinates work in physical education, which leads to a B.S. in education degree with certification to teach either 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 9-12): 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 College of Education and other university departments.

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.

At the graduate level, the division provides a program leading to an M.Ed. in secondary education with emphasis in: general secondary education; curriculum and instruction; secondary education with emphasis in reading; and secondary education and certification.

The **special education** program prepares students to teach learners with developmental disabilities, emotional/behavioral disorders, learning disabilities, or in early childhood special education settings. Missouri certification standards require a student teaching experience in the area of special education.

At the graduate level, requisite course work for Missouri certification in special education is available, as is the M.Ed. Degree.

Minor in Literacy

A Minor in Literacy can be earned by successfully completing 18 hours of the following:

TCH ED 3315, Literacy Learning and Instruction
TCH ED 4391, Teaching Reading in Secondary School
Content Areas.

ECH ED 3332, Literacy learning and Instruction for the
Young Child

ELE ED 4989, Elementary Education Professional
Internship

ELE ED 3330, Literacy, Literature and the Learner

ELE ED 3336, Communication Arts Learning and
Instruction

ELE ED 3389, Classroom Based Assessment to Guide
Literacy Instruction

Minor in Mathematics Education K-5

A Minor in Mathematics Education can be earned by successfully completing 18 hours in the mathematics education field. The following mathematics education courses may be applied to Mathematics Education Minor.

- ELE ED 4246, Teaching Mathematics in the Elementary School
- ELE ED 4342, Addressing Needs in Mathematics Teaching and Learning
- ELE ED 4346, Advanced Methods in Elementary School Mathematics
- MID ED 4246, Teaching Mathematics in the Middle School
- ECH ED 4346, The Acquisition of Mathematical Concepts
- ED TECH 5301, Introduction to Computers and the Internet in Education

Mathematics courses (except 1030, 1150 & 2510) with consent of advisor.

Minor in Urban Education P-5

A minor in Urban Education P-5 can be earned by successfully completing the following 18 hours of Teacher Education, Early Childhood, and Elementary Education courses. Students must register for the special sections of these courses that are offered in urban settings to meet the requirements of this minor.

- TCH ED 2311, Foundations in Urban Education and Social Justice
- ELE ED 3330, Literacy, Literature and the Learner
- ELE ED 3336, Communication Arts Learning and Instruction
- ELE ED or ECH ED 4320, Classroom Management
- ELE ED 4989, Elementary Education Professional Internship OR
- ELE ED 4989, Early Childhood Primary Internship
- TCH ED 4988, Teaching and Learning in Urban Schools

Note: The State Board of Education developed standards for renewable professional certificates, based on specific requirements for training and experience. Details regarding these standards are available in the office of undergraduate studies in education.

Minor in Teaching English to Speakers of Other Languages P-12

A Minor in Teaching English to Speakers of Other Languages (TESOL) can be earned by successfully completing 18 hours of coursework that is identified to prepare the student to earn a TESOL teaching endorsement as an additional area of teaching certification by the Missouri Department of Elementary and Secondary Education.

- TCH ED 3210, General Linguistics in Teaching English to Speakers of Other Languages (TESOL)
- TCH ED 3211, Basic Principles of Second and Foreign Language Acquisition

- TCH ED 3212, Sociolinguistics and Communication in the Classroom
- TCH ED 3213, Performance-based Assessment for TESOL
- TCH ED 3214, Material Development and Methods for TESOL
- TCH ED 3215, Field Experiences in TESOL

Bachelor of Educational Studies

Admission Requirements

To be admitted to the Bachelor of Educational Studies Program an applicant must:

- Be regularly admitted to the College of Education.
- Have earned a UM and overall cumulative grade point average of 2.50 on a 4.0 scale.
- Have a documented ACT or SAT score
- Have scored 235 or higher on each subtest of the CBASE.
- Complete English 1100 with a C or better.
- Complete Mathematics 1030 with a C or better
- Have earned at least 45 hours of college credit.
- Complete an application for the Bachelor of Educational Studies and secure appropriate signatures.

The B.E.S. is a professional degree designed for individuals who wish to study Education as a scholarly discipline but who do not wish to prepare for the professional practice for Education in the K-12 schools of this state or nation. Available emphasis areas include Early Childhood Education and Professional Education Studies.

General Education Requirements

Students entering college first time fall, 2002 should refer to the introductory section of this bulletin for their General Education Requirements.

Communicative Skills (2 requirements)

- All students must complete a freshman English composition course with a grade of C or better.
- All students must complete English 3100, Advanced Expository Writing, or its equivalent, with a grade of C or better.

Mathematical Skills

- A grade of C or better in a college-credit mathematics course having at least intermediate algebra as a prerequisite, or
- A satisfactory score on the university's Mathematics Proficiency Test.

Breadth of Study (minimum 42 hours in the following three areas with at least three courses in each area)

- Humanities
- Natural sciences and mathematics
- Social sciences

Other Requirements

- American History or Government (course take at the University of Missouri or at other colleges or universities in Missouri)

Degree Requirements

Cultural Diversity Requirement (3)

- **ED PSY 3312/TCH ED 3312**, The Psychology of Teaching and Learning (3)
- **COMM 1040**, Introduction to Public Speaking (3)
- 6 hours in Psychology or Educational Psychology numbered 3000 or higher
- **EDUC 2290**, Internship (6)
- **EDUC 2291**, Internship (6)

At least one of the following:

- **PHY ED 3282**, Physical Growth and Motor Development (3)
- **ED PSY/TCH ED 2212**, (3), Introduction to Learners and Learning (3), or equivalent
- **PSYCH 2272**, Adult Development and Aging (3 hours; same as Gerontology 2272)

Emphasis in Early Childhood

One of the following two:

- TCH ED 2211**, Introduction to American Schools (3 or equivalent)
- PHY ED 3282**, Physical Growth and Motor Development (3)
- TCH ED 3313**, Psychology of the Exceptional Child (3) or equivalent.
- ECH ED 3303**, Curriculum and Practice Laboratory: Infant/Toddler (1)
- ECH ED 3304**, Curriculum and Practice Laboratory: Preschool (1)
- ECH ED 3312**, Introduction to Early Childhood Education (3)
- ECH ED 3313**, Curriculum and Practice: Infant/Toddler (2)
- ECH ED 3314**, Curriculum and Practice: Preschool (2)
- ECH ED 4317**, Assessing Individual Needs for Early Childhood Instruction (3)
- ECH ED 4331**, Language Acquisition and Development in Early Childhood (3 hours)
- ECH ED 3332**, Literacy, Learning and Instruction for the Young Child (3)
- ECH ED 4346**, The Acquisition of Mathematical Concepts(3)

Total: 27 hours

Second Concentration: Electives to total 12 hours to be chosen from ECH ED, ELE ED, SPEC ED, ED TECH, ED REM, or an area chosen in consultation with the adviser.

Second concentration: Electives to total 12 hours to be chosen from Biology, Chemistry, Physics, Psychology,

Gerontology, or an area chosen in consultation with the adviser.

Emphasis in Professional Education Studies

27 hours in one of the following, numbered 3000 or at over: ELE ED, SPEC ED, SEC ED.

Second Concentration: Electives to total 12 hours to be chosen from an area not selected above or ECH ED, PHY ED, TCH ED, CNS ED, ED PSY, ED REM or ED TECH.

Candidates for the Bachelor of Educational Studies degree must achieve a cumulative grade point average of at least 2.50, complete 24 of the last 30 hours in residence at University of Missouri-St. Louis, and be recommended by the faculty of the College of Education.

Early Childhood Education (ECH ED)

Undergraduate Studies

Bachelor of Science in Education: Early Childhood

This program is designed for students wishing to teach and direct programs for children from birth through grade three.

General Education Requirements:

Students entering college first time Fall, 2002 should refer to the Introductory section of this Bulletin for their General Education Requirements.

English and Communication (9 hours)

ENGL 1100, Composition
ENGL 3100 or 3120, Advanced Expository Writing

Communication: 3 hours

Mathematics (3 hours)

MATH 1150, Structure of Mathematical Systems I

Biological Science: includes lab (5 hours)

General Biology 1012/1013

Physical Science: includes lab (4 hours)

Humanities (8 hours)

Three courses from two of the following fields: art, music, philosophy, and literature.

Social Science (15 hours)

PSYCH 1003, General Psychology

POL SCI 1100, Introduction to American Politics, or equivalent **and one of the following history courses:**

HIST 1001, American Civilization

HIST 1002, American Civilization

and the following courses:

POL SCI 1850, Global Ecology

SOC 1010, 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.

Level I: Exploring Education as a Profession

TCH ED 2210, Introduction to Teaching
TCH ED 2211, Introduction to American Schools
TCH ED 2212, Introduction to Learners and Learning

Level II: Analyzing the Nature and Process of Education

TCH ED 3310, Introduction to Instructional Methods
TCH ED 3312, Psychology of Teaching and Learning
TCH ED 3313, Introduction to Learners with Disability and Inclusive Education
TCH ED 3315, Literacy Learning and Instruction
PHY ED 3430, Teaching Health in the Elementary School
PHY ED 3282, Physical Growth and Motor Development

Level III: Synthesizing Theory and Practice in Education

ELE ED 3330, Literacy, Literature and the Learner
ELE ED 3336, Communication Arts Learning and Instruction
plus these Early Childhood Education (ECH ED) courses:

Note: ECH ED 4990 and ECH ED 4991 must be taken during the same semester.

3303, Curriculum and Practice Laboratory: Infant/Toddler
3304, Curriculum and Practice Laboratory: Preschool
3312, Introduction to Early Childhood Education
3313, Curriculum and Practice: Infant/Toddler
3314, Curriculum and Practice: Preschool
3332, Literacy, Learning and Instruction for the Young Child
4317, Assessing Individual Needs for Early Childhood
4346, The Acquisition of Mathematical Concepts
4320, Classroom Management
4989, Early Childhood Primary Internship
4990, Student Teaching in Early Childhood Education I (6 hrs)
4991, Student Teaching in Early Childhood Education II (6 hrs)

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).

Total: A minimum of 120 hours

Graduate Studies

Master of Education: Elementary Education, Early Childhood Education Emphasis

The M.Ed. program with an emphasis in early childhood education is designed to enable candidates to further their competencies as teachers or program administrators in public and private early childhood program. The program also prepares them for positions in community agencies that support families courses are as follows. The minimum required and recommended complete the Required Core Competencies and Capstone Course as above.

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 childcare, 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.

Elementary Education (ELE ED)

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)

ENGL 1100, Freshman Composition

ENGL 3100, Advanced Expository Writing

*Communication 1040, Introduction to Public Speaking

Mathematics (6 hours)

MATH 1150, Structure of Mathematical Systems I

MATH 2510, Structure of Mathematical Systems II

Biological Science: includes lab (5 hours)

*General Biology 1012/1013

Physical Science: includes lab (4 hours)

Humanities (8 hours)

Three courses from two of the following fields: art, music, philosophy, and literature.

Social Science (18 hours)

PSYCH 1003, General Psychology

POL SCI 1100, Introduction to American Politics, or equivalent

And one of the following history courses:

HIST 1001, American Civilization

HIST 1002, American Civilization

POL SCI 1850, Global Ecology

SOC 1010, Introduction to Sociology, or any Anthropology course.

ECON 3052, Microeconomics for the School Curriculum

Related Area Requirement

PHY ED 3430, Teaching Health in the Elementary School

PHY ED 3465, Physical Education Activities for the Elementary School

MUS ED 3770, An Introduction to Music for the
Elementary School Teacher
ELE ED 2179, Art Activities for Elementary School

Program Requirements

Level I: Exploring Education as a Profession
TCH ED 2210, Introduction to Teaching
TCH ED 2211, Introduction to American Schools
TCH ED 2212, Introduction to Learners and Learning

Level II: Analyzing the Nature and Process of Education
TCH ED 3310, Introduction to Instructional Methods
TCH ED 3312, Psychology of Teaching and Learning
TCH ED 3313, Psychology of the Exceptional Child
TCH ED 3315, Literacy Learning and Instruction

Level III: Synthesizing Theory and Practice in Education
ELE ED 3330, Literacy, Literature and the Learner
ELE ED 3336, Communication Arts Learning and
Instruction
ELE ED 4246, Teaching Mathematics in the Elementary
School
ELE ED 4320, Classroom Management
ELE ED 4253, Teaching Social Studies in the Elementary
School
ELE ED 4341, Teaching of Science in the Elementary
School
ELE ED 4989, Elementary Education Professional
Internship
ELE ED 4990 and 4991, Elementary School Student
Teaching

Attention education majors: Professional education courses must be completed with a grade point average of 2.5 and no grade lower than a C.

Total: minimum of 120 hours.

Middle School/Junior High (5-9)

General education requirements are the same as for elementary education.

Postdegree certification students may take ED FND 4330, History of American or ED FND 6421, Philosophy of Education, in lieu of TCH ED 2211.

Changes in teacher certification requirements in this area are upcoming. To obtain the latest information requirement changes or to find out whether the new requirements will apply to you, contact the office of undergraduate teacher education, 155 Marillac Hall.

**Bachelor of Science in Education: Elementary Education
(Middle School Certification)**

General Education Requirements

General education requirements are the same as for elementary education.

Program Requirements

Level I: Exploring Education as a Profession

TCH ED 2210, Introduction to Teaching
TCH ED 2211, Introduction to American Schools
TCH ED 2212, Introduction to Learners and Learning

Level II: Analyzing the Nature and Process of Education

TCH ED 3310, Introduction to Instructional Methods
TCH ED 3312, The Psychology of Teaching and Learning
TCH ED 3313, Psychology of the Exceptional Child
MID ED 4315, The Middle Level School
MID ED 4316, Middle Level Curriculum and Instruction
TCH ED 4391, Teaching Reading in the Secondary School
Content Area

Level III: Synthesizing Theory and Practice in Education

ELE ED 3389, Classroom Based Assessment to Guide
Literacy Instruction

SEC ED 4880, Writing for Teachers
MID ED 4317, The Middle level Child
MID ED 4989, Middle Level Internship
MID ED 4317& MID ED 4989 should be taken
concurrently.

Special Methods

Along with education courses in Level III, students must take the appropriate special methods course congruent with the certification area(s) listed below:

ELE ED 3336, Communications Arts Learning and
Instruction

MID ED 4253, Teaching of Social Studies in the Middle
School

MID ED 4246, Teaching Mathematics in the Middle School

ELE ED 4341, Teaching of Science in the Elementary
School

ELE ED 4990, Student Teaching I

ELE ED 4991, Student Teaching II

ELE ED 4990 and 4991 (Denoted as Middle School
sections)

Area of Concentration for State Certification

Middle School certification 5-9 requires a minimum of 21 hours for certification in the specific content of language arts, social studies, math, or science. Contact the office of undergraduate teacher education, 155 Marillac Hall, for specific content area courses.

Attention education majors: Professional education courses must be completed with a grade point average of 2.5 and no grade lower than a C is acceptable.

Minimum of 120 hours

Graduate Studies

Master of Education: Elementary Education

General Curricular Program or Specialization in Selected Curricular Areas

The M.Ed. program in elementary education has a general program option, an emphasis in reading option, and an early childhood education option. All options consist of an initial required core of courses; a concentration area; an optional specialization area; a teacher research course; and a capstone or exit course. Areas of specialization are suggested below. A minimum of 33 hours is required for the degree; additional hours may be necessary for reading specialist certification.

1) Required Core (9 hours)

Students are required to complete the following courses within the first 15 hours of study.

TCH ED 6010, Examining History, Community, and Social Justice in Education (3)

TCH ED 6020, Teacher Action, Advocacy & Leadership (3)

TCH ED/ED PSY 6030, Instruction, Learning & Assessment (3)

2) Required Research Course (3 hours)

ED REM 6040, Educational Research for Teachers (3)

3) Elementary Education Concentration (12-18 hours)

A curriculum course (required): **ELE ED 6410**, Current Research in the Elementary School Curriculum. Students should select at least 9 additional hours in one or more of the following areas: children's literature, early childhood, language arts, mathematics education, reading, science education, social studies education, special education, physical education, educational technology, curriculum development, improvement of instruction, or another area as identified in consultation with the faculty advisor.

4) Specialization Areas (Optional; 6 hours)

Students may follow one of the core competency courses with two additional courses to develop an area of specialization, such as: Educational Psychology Option: **ED PSY/TCH ED 6030** followed by either **ED PSY 6210**, Life-Span: Individual and Family Development or **ED PSY/ED TECH 6448**, Technology Supported Inquiry Learning (3 hours each) and one of the following **ED PSY** courses: **6210**, Life-Span: Individual & Family Development; **6215**, Psychology of Early Childhood Development; **6220**, Psychology of the Elementary School Child; or **6225**, The Psychology of Adolescence (3 hours each) Educational Technology Option: **TCH ED/ED PSY 6030** followed by **ED TECH 5340**, Selection and Utilization of Educational Multimedia and **ED TECH 6452**, Educational Multimedia Design. Other specialization areas are available and information is available in the Graduate Education and Teaching & Learning Division office.

5) Capstone Course (3 hours)

Students must enroll in the capstone course during their last 6 hours.

TCH ED 6910, Teacher Action Research Capstone (3)

Emphasis in Reading

The M.Ed. program with emphasis in reading (literacy) is designed to enable candidates to further their competencies as teachers of reading, writing, and the other communication arts. The program also prepares them for positions as literacy coaches, reading specialists, curriculum specialist in communication arts and reading areas, consultants in areas of communication arts, and/or for further graduate study. The following program enables the student to earn a M.Ed. with an emphasis in Reading while fulfilling the Department of Elementary and Secondary Education's requirements for special reading certification in Missouri. Students must complete the first two levels of the Required Core, an educational psychology course, an approved educational research course, 18 hours of literacy courses, and an action research capstone course. The minimum required and recommended courses are as follows:

Required Core (9 hours)

TCH ED 6010, Examining History, Community, and Social Justice in Education (3)

TCH ED 6020, Teacher Action, Advocacy & Leadership (3)

TCH ED/ED PSY 6030, Instruction, Learning & Assessment (3) or a graduate level course in child psychology or adolescent psychology may be substituted if needed for certification.

Required Research Course – Evaluation of Abilities and Achievement (3 hours)

ED REM 6707, or **6716**, Choose one course (3) Dependent on student needs and interests.

Reading Concentration (18 hours):

Required Courses

ELE ED 6387, Literacy Acquisition & Learning for Urban Students

ELE ED 6684, Instructional Strategies for Teaching Reading

ELE ED 6686, Analysis and Correction of Reading Disabilities

ELE ED 6493, Reading Specialist Practicum I

ELE ED 6494, Reading Specialist Practicum II

And at least one course from the literacy-related elective list or from the certification-related elective list below (min. 3 hrs):

Capstone Course (3 hours)

ELE ED 6482, Problems and Research in Teaching Elementary School Reading

Literacy Related Electives

ELE ED 6630, Communication Arts Instruction

ELE ED 6436, Children's Literature I: Survey & Analysis

ENGL 6880/TCH ED 6880, Gateway Writing Project (6)
TCH Ed 4391, Teaching Reading in Secondary School
Content Areas*
ELE ED 6688, Literacy Assessment to Guide Instruction
TCH ED 5312, Differentiated Instruction

To be recommended for Missouri Department of Elementary and Secondary Education special reading certification, teachers must have a valid Missouri teacher's certificate and two years of classroom teaching experience, and they must have had the following at either the undergraduate or graduate level: two additional courses in reading; language acquisition or development; classroom management techniques; counseling techniques (to include exceptional children and their families: child AND adolescent psychology; and testing, evaluation, and achievement. These certification requirements might be in addition to the courses listed in the program of study above. See your graduate advisor for information about these courses. M. Ed. Students needing any of the above can elect to take these courses at the graduate level where available and apply them to their concentration area.

Certification Related Electives

ED PSY 6220, Psychology of the Elementary School Child
ED PSY 6225, The Psychology of Adolescence
CNS ED 3320, Counseling Individuals with Special Needs
Sp Ed 4315, Speech and Language Problems of Exceptional Children
ECH ED 4331, Language Acquisition and Development in Early Childhood
SPEC ED 6320, Advanced Studies in Classroom Management
ED REM 6707, Classroom Measurement & Evaluation
ED REM 6709, Educational and Psychological Testing

***Only one 4000 level course can be applied to the M.Ed.**

Certification Options

A combined M.Ed. and certification option exists. Options include elementary education (1-8), early childhood education (PK-3), and middle school/junior high (4-9). Students should consult certification advisers. Graduate credit will not be given for courses at the 1000 to 3000 levels and only one 4000 level course can be applied to an M.Ed. degree.

Elementary Education-Emphasis in Early Childhood Education Concentration (12 hours)

Required:

ECH ED 6412, Foundations of Early Childhood Education (3)
ECH ED 6413, The Educational Role of Play (3)
ECH ED 6415, Organization and Development of Early Childhood Programs (3)
ED PSY 6215, Psychology of Early Childhood Development (3)

Elective hours (6 hours)

Total: 33 hours

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 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 currently employed teachers will retire within the next 5-10 years; consequently, a shortage of teachers is anticipated.

Physical Education (PHY ED)

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.

Communication Skills (9 hours)

ENGL 1100, Freshman Composition
ENGL 3100, Advanced Expository Writing or equivalent
COMM1040, Introduction to Public Speaking

General Education Requirements (42 hours required):

Students entering college first time, Fall 2002 should refer to the Introductory section of this Bulletin for their General Education Requirements.

Humanities (8 hours)

Three courses from two curricular designations in the humanities (Symbol H).

Social Science (9 hours)

One course in American history
One course in American government
PSYCH 1003, General Psychology

Natural Science (8 hours)

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 (3 hours)

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 Emphasis

Level I: Exploring Education as a Profession

The following physical education (PHY ED) courses and professional education courses are required (16 hrs) and must be completed before advancement to Level II:

PHY ED 3280, Human Anatomy and Physiology (5)
PHY ED 3277, Historical/Philosophical Foundations of Physical Education and Sports (2)
TCH ED 2210, Introduction to Teaching (3)
TCH ED 2211, Introduction to Schools (3)
TCH ED 2212, Introduction to Learners (3)

Level II: Analyzing the Nature and Process of Education

The following physical education (PHY ED) courses and professional education courses are required (27 hrs) before enrollment in any Level III courses:

PHY ED 3267, Performance Analysis in Physical Education (3)
PHY ED 3275, Psychological Aspects of Physical Education (3)
PHY ED 3282, Physical Growth and Motor Development (3)
PHY ED 3283, Kinesiology (3)
PHY ED 3284, Physiology of Human Exercise (3)
PHY ED 3285, Sports Medicine (3)
TCH ED 3312, Psychology of Teaching and Learning (3)
TCH ED 3313, Psychology of the Exceptional Child (3)
TCH ED 4391, Teaching Reading in Secondary School Content Areas (3 hrs)

The following physical education courses are required (9 hrs) and can be taken concurrently with Level III courses:

PHY ED 3434, Teaching of Wellness and Health Related Fitness (4)
PHY ED 3261, Physical Activity for the Exceptional Lerner (2)
PHY ED 3468, The Curriculum and Methods of Teaching Physical Education (3)

Level III: Synthesizing Theory and Practice in Education

The following physical education (PHY ED) courses are required (26 hrs):

PHY ED 3422, Teaching of Skills: Grade PK-4 (4)
PHY ED 3423, Teaching of Skills: Grades 5-9 (4)
PHY ED 3425, Teaching of Skills: Movement, Dance and Rhythms (3)
PHY ED 4989, Physical Education Professional Internship (3)
PHY ED 4990, Student Teaching in Physical Education PK-5 (6)
PHY ED 4991, Student Teaching in Physical Education 5-9 (6)
Total: 126 hours

Attention education majors: Professional education courses must be completed with a grade point average of 2.5 and no grade lower than a C.

Grades K through 12 Emphasis

General Education requirements are the same as for K-9.

Level I: Exploring Education as a Profession

The following physical education (PHY ED) courses and professional education courses are required (16 hrs) and must be completed before advancement to Level II:

PHY ED 3280, Human Anatomy and Physiology (5)
PHY ED 3277, Historical/Philosophical Foundations of Physical Education and Sport (2)
TCH ED 2210, Introduction to Teaching (3)
TCH ED 2211, Introduction to Schools (3)
TCH ED 2212, Introduction to Learners (3)

Level II: Analyzing the Nature and Process of Education

The following physical education (PHY ED) course professional education courses are required (29hrs) before enrollment in any Level III courses:

PHY ED 3267, Performance Analysis in Physical Education (3)
PHY ED 3275, Psychological Aspects of Physical Education (3)
PHY ED 3276, Sociological Foundations of Physical Education and Sports (2)
PHY ED 3282, Physical Growth and Motor Development (3)
PHY ED 3283, Kinesiology (3)
PHY ED 3284, Physiology of Human Exercise (3)
PHY ED 3285, Sports Medicine (3)
TCH ED 3312, Psychology of Teaching and Learning (3)
TCH ED 3313, Psychology of the Exceptional Child (3)
TCH ED 4391, Teaching Reading in Secondary School Content Areas (3)

The following physical education courses are required (9 hrs) and can be taken concurrently with Level III Courses:

PHY ED 3434, Teaching of Wellness and Health Related Fitness (4)
PHY ED 3261, Physical Activity for the Exceptional Learner (2)
PHY ED 3468, The Curriculum and Methods of Teaching Physical Education (3)

Level III: Synthesizing Theory and Practice in Education

The following physical education (PHY ED) courses are Required (30 hrs):

PHY ED 3422, Teaching of Skills: Grades PK-4 (4)
PHY ED 3423, Teaching of Skills: Grades 5-9 (4)
PHY ED 3424, Teaching of Skills Grades 9-12 (4)

PHY ED 3425, Teaching of Skills: Movement, Dance and Rhythms (3)

PHY ED 4989, Physical Education Professional Internship (3)

Two of the following three:

PHY ED 4990, Student Teaching in Physical Education PK-5 (6)

PHY ED 4991, Student Teaching in Physical Education 5-9 (6)

PHY ED 4992, Student Teaching in Physical Education 9-12 (6)

Minimum: 132 hours

Attention education majors: Professional education courses must be completed with a grade point average of 2.5 and no grade lower than a C.

Athletic Coaching Minor

An athletic coaching minor is available (minimum of 20 hours). The following courses are required:

PHY ED 3283, Kinesiology

PHY ED 3424, Teaching of Skills: Grades 9-12

PHY ED 5312, Management of Sports Programs

PHY ED 5330, Prescribing Physical Activity

All courses apply to, but do not complete, teaching certification in Missouri.

Health Certification

For those with a valid teaching certificate in physical education, courses are available to obtain an additional endorsement in Health Education.

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 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 positive, especially in the elementary and middle school levels. Recent placement years have yielded full employment opportunities to University of Missouri-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 age categories.

Secondary Education (SEC ED)

Undergraduate Studies

Bachelor of Science in Education: Secondary Education

Two secondary education programs prepare students to teach in grades 9 through 12: Bachelor of Science in Secondary Education through the College of Education (B.S.Ed.) OR Bachelor of Arts in a department of the College of Arts and Sciences (B.A.) with certification in Secondary Education.

General Education Requirements

Students entering college first time, Fall 2002 should refer to the Introductory section of this bulletin for their General Education Requirements.

B.S.Ed. degree candidates must complete the following general education courses required by the College of Education and the Missouri Department of Elementary and Secondary Education.

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 theater and drama.

Communication Skills

At least **two** courses in English composition and **one** in oral communications.

Social Studies

One course in each--American history and American government, **and one** additional course selected from the following areas: geography, sociology, economics, anthropology, and psychology, Psych 1003, General Psychology (required).

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 2 semester hours.

Program Requirements

B.S.Ed. and B.A. certification candidates must complete the following courses:

Level I: Exploring Education as a Profession

TCH ED 2210, Introduction to Teaching
TCH ED 2211, Introduction to Schools
TCH ED 2212, Introduction to Learners

Level II: Analyzing the Nature and Process of Education

TCH ED 3310, Introduction to Instructional Methods
TCH ED 3312, Psychology of Teaching and Learning
TCH ED 3313, Psychology of the Exceptional Child
TCH ED 4391, Teaching Reading in Secondary School Content Areas

Level III: Synthesizing Theory and Practice in Education

SEC ED 4xxx, Curriculum and Methods of Teaching (specific subject area)
SEC ED 4989, Secondary Education Professional Internship
SEC ED 4990, Secondary School Student Teaching
SEC ED 4xxx, Student Teaching Intern Seminar (Taken concurrently with student teaching)

Note: SEC ED 4989 Secondary Education Professional Internship and SEC ED 4xxx, Curriculum and Methods of Teaching (specific subject area) must be taken in the same semester and in the semester immediately preceding SEC ED 4990, Secondary School Student Teaching

Attention education majors:

Professional education courses must be completed with a grade point average of 2.5 and no grade lower than a C or better are required in all courses in the teaching field.

Emphasis Areas: B.S.Ed. 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, unified science (biology, chemistry, or physics endorsement), or social studies. For specific subject requirements see the appropriate department listing in the Arts and Science section of this bulletin: Physics requirements are listed below:

Note: Music education students take the following courses SEC ED 4993, Student Teaching in Music Education K-6, and SEC ED 4994, Student Teaching in Music Education 7-12. These two courses must be taken during the same semester. Art Education students take the following courses, SEC ED 4996, Student Teaching in Elementary Art and SEC ED 4997, Student Teaching in Secondary Art. These two courses must be taken in the same semester.

Social Studies certification students must complete a major or an equivalent in hours in one of the following disciplines: anthropology, economics, geography, history, political science, psychology, or sociology. They must meet these minimum social science requirements: American history, 12 hours including HIST/SEC ED 4013; European or world history, 9 hours including HIST/SEC ED 4014; United States and/or state government, 6 hours including POL SCI 3090/SEC ED 3209; behavioral science, 6 hours; economics, 3 hours; geography, 3 hours; and 2 hours of elective social studies credit. For emphasis area advising, see the History Department.

B.S. Degree in Secondary Education with an Emphasis in Science-Physics

All candidates must enroll in a program that includes levels I, II, and III course work in the College of Education. In addition, students must complete the following Science Core Courses and the courses listed under Physics Endorsement:

Science core courses:

PHIL 3380, Philosophy of Science

Biology

1811, Introductory Biology I
1821, Introductory Biology II
1111, Introductory Chemistry I
1112, Introductory Chemistry II
GEOL 1001, General Geology
ATM SCI 1001, Elementary Meteorology
BIOL 1202, Environmental Biology or another environmental science

Physics

1011, Physics: Mechanics and Heat
1012, Physics: Electricity, Magnetism, and Optics

Physics Endorsement

Physics

3200, Survey of Theoretical Physics
3221, Mechanics
3223, Electricity and Magnetism
3231, Introduction to Modern Physics
4310, Modern Electronics
4311, Advanced Physics Laboratory I
4802, or SEC ED 3240, Curriculum and Methods of Teaching Physical Science
4837, Chemistry/Physics Teaching Intern Seminar

Graduate Studies

The M.Ed. program in secondary education has general program, curriculum and instruction, or reading options. All consist of an initial required core of courses; an opportunity to develop an area of specialization; an opportunity for study in the teaching field; and a capstone or exit course. Areas of specialization are suggested below. A minimum of 33 hours is required for the general program, curriculum and instruction, and adult education and reading options.

Master of Education: Secondary Education

The M.Ed. general program is appropriate for secondary teachers and department chairpersons. Programs must be planned with the academic adviser and meet the approval of the advisor, College, and Graduate School.

1) Required Core (9 hours)

Students are required to complete the following courses within the first 15 hours of study.

TCH ED 6010, Examining History, Community, and Social Justice in Education (3)

TCH ED 6020, Teacher Action, Advocacy & Leadership (3)

TCH ED/ED PSY 6030, Instruction, learning & Assessment (3)

2) Required Research Course (3 hours)

ED REM 6040, Educational Research for Teachers (3)

3) Teaching Field Concentration (12-18 hours)

A curriculum course (required): **SEC ED 6415**, The Secondary School Curriculum. Students should select at least 9 hours in their teaching field (mathematics; chemistry; biology; physics; social studies; English; physical education; speech and theatre; educational technology or other) or in secondary education, as identified in consultation with the faculty advisor.

4) Specialization Areas (Optional: 6 hours)

Students may follow one of the core competency courses with two additional courses to develop an area of specialization, such as:

Educational Technology Option: **TCH ED/ED PSY 6030** followed by **ED TECH 5340**, Selection and Utilization of Educational Multimedia and **ED TECH 6452**, Educational Multimedia Design

Educational Psychology Option, **TCH ED/ED PSY 6030** followed by either **ED PSY 6210**, Life-Span: Individual and Family Development or **ED PSY/ED TECH 6448**, Technology Supported Inquiry Learning (3 hours each) and one of the following **ED PSY** courses: **6210**, Life-Span: Individual & Family Development; **6215**, Psychology of Early Childhood Development; **6220**, Psychology of the Elementary School Child; or **6225**, The Psychology of Adolescence (3 hours each) Teaching of Writing Option, **TCH ED/ED PSY 6030** followed by **TCH ED 5850**, Topics in the Teaching of Writing *and* **TCH ED 6890**, Seminar in Professional Writing for Teachers; *or* **TCH ED 6880**, Gateway Writing Project (6).

Other specialization areas are available and information is available in the Graduate Education and Teaching & Learning Division offices.

5) Capstone Course (3 hours)

Students must enroll in the capstone course during their last 6 hours. **TCH ED 6910**, Teacher Action Research Capstone (3)

Master of Education: Secondary Education with Emphasis in Curriculum and Instruction

The M.Ed. with an emphasis in curriculum and instruction is designed for graduate students who wish to further their competencies as teacher or curriculum specialist or instructional leaders.

1) Required Core requirements (9 hours)

Students are required to complete the following courses within the first 15 hours of study.

TCH ED 6010, Examining History, Community, and Social Justice in Education (3)

TCH ED 6020, Teacher Action, Advocacy & Leadership (3)

TCH ED/ED PSY 6030, Instruction, Learning & Assessment (3)

2) Required Research Course (3 hours)

ED REM 6040, Educational Research for Teachers (3)

3) Curriculum and Instruction Core (9 hours)

SEC ED 6415, The Secondary School Curriculum

SEC ED 6420, The Improvement of Secondary School Teaching

SEC ED 6416, Curriculum Construction for Secondary Schools

4) Specialization Areas (Optional: 6 hours)

Same as above

5) Electives (3-9 hours)

Students can elect hours in their teaching field or other areas of secondary education. The following are suggested:

ED FND 6421, Philosophy of Education

ED FND 6422, Analysis of Educational Issues

ED FND 6435, History of Western Education

6) Capstone Course (3 hours)

Students must enroll in the capstone course during their last 6 hours.

TCH ED 6910, Teacher Action Research Capstone (3)

Master of Education: Secondary Education with Emphasis in Middle Level Education

The M.Ed. with an emphasis in middle level education is designed for graduate students who would like to further their competencies as a middle level educator.

1) Required Core Requirements (9 hours)

Students are required to complete the following courses within the first 15 hours of study.

TCH ED 6010, Examining History, Community and Social Justice in Education (3)

TCH ED 6020, Teacher Action, Advocacy & Leadership (3)

TCH ED/ED PSY 6030, Instruction, Learning & Assessment (3)

2) Required Research Course (3 hours)

ED REM 6040, Educational Research for Teachers (3)

3) Middle Level Education Core (12 hours)

Students should select a curriculum course and at least 9 hours from the following:

ED ADM 6303, Middle School Administration
ED ADM 6315, Middle School Educational Philosophy
ED ADM 6317, Supervision and the Middle School Child
ED PSY 6225, The Psychology of Adolescence
MID ED 5220, Science for the Middle School Teacher (5)

4) Specialization Areas (Optional: 6 hours)

Same as above

5) Electives (3-6 hours)

6) Capstone Course (3 hours)

Students must enroll in the capstone course during their last 6 hours.

6910, TCH ED 6910, Teacher Action Research Capstone (3)

Master of Education: Secondary Education with Emphasis in Reading

The M.Ed. program with emphasis in reading (literacy) is designed to enable candidates to further their competencies as teachers of reading, writing and other communication arts. The program also prepares them for positions as literacy coaches, reading specialists, curriculum specialist in communication arts and reading areas, consultants in areas of communication arts, and/or for further graduate study. The following program enables the student to earn a M.Ed. with an emphasis in Reading while fulfilling the Department of Elementary and Secondary Education's requirements for special reading certification in Missouri. A course in reading in the content area is required for secondary certification. If this has not been taken as an undergraduate, it must be selected as an elective in the program for a Masters in Secondary Education with a Reading Emphasis. The minimum required and recommended courses are as follows:

1) Required core (9 hours)

TCH ED 6010, Examining History, Community and Social Justice in Education (3)
TCH ED 6020, Teacher Action, Advocacy & Leadership (3)
TCH ED/ED PSY 6030, Instruction, Learning & Assessment (3) or a graduate level course in child psychology and/or adolescent psychology may be substituted if needed for certification.

2) Required Research Course – Evaluation of Abilities and Achievement (3 hours)

ED REM 6707, or 6716, choose one course (3)

3) Reading Concentration (18 hours):

Required Courses

SEC ED 6387, Literacy Acquisition & Learning for Urban Students
ELE ED 6684, Instructional Strategies for Teaching Reading

SPC ED 6686, Analysis and Correction of Reading Disabilities

SEC ED 6493, Reading Specialist Practicum I
SEC ED 6494, Reading Specialist Practicum II

And at least one course from the literacy-related elective list or from the certification-related elective list below (min. 3 hrs):

4) Capstone Course (3 hours)

SEC ED 6482, Problems and Research in Teaching Secondary School Reading

Literacy Related Electives Include:

ELE ED 6630, Communication Arts Instruction
ELE ED 6436, Children's Literature I: Survey & Analysis
ENGL 6880/TCH ED 6880, Gateway Writing Project
TCH ED 4391, Teaching Reading in Secondary School

Content Areas

ELE ED 6688, Literacy Assessment to Guide Instruction
One course needed to complete certification (See note below)

To be recommended for Missouri Department of Elementary and Secondary Education special reading certification, teachers must have a valid Missouri teacher's certificate and two years of classroom teaching experience, and they must have had the following at either the undergraduate or graduate level: two additional courses in reading; language acquisition or development; classroom management techniques; counseling techniques (to include exceptional children and their families: child AND adolescent psychology; and testing, evaluation, and achievement. These certification requirements might be in addition to the courses listed in the program of study above. See your graduate advisor for information about these courses. M.Ed. Students needing any of the above can elect to take these courses at the graduate level where available and apply them to their concentration area.

Certification Related Electives Include

ED PSY 6220, Psychology of the Elementary School Child
ED PSY 6225, The Psychology of Adolescence
CNS ED 3320, Counseling Individuals with Special Needs
SPEC ED 4315, Speech and Language Problems Exceptional Children
ECH ED 4331, Language Acquisition and Development in Early Childhood
SPEC ED 6320, Advanced Studies in Classroom Management
ED REM 6707, Classroom Measurement & Evaluation
ED REM 6709, Educational and Psychological Testing

Note: * Only one 4000 level course can be applied to the M.Ed.

Master of Education: Secondary Education and Certification

Those holding a baccalaureate degree or major in the teaching field who would like to pursue initial teacher preparation and a Master's degree, can take the following program. The exact number of hours depends upon hours needed by the student to meet certification requirements in the chosen teaching field.

1) Required Teacher Certification Courses at the Graduate Level (17 hours)

TCH ED 5311, Foundations in Education (4)
ED PSY 6109, Learning and Development in Educational Environments (4)
TCH ED 5310, Instructional Design (3)
TCH ED 5312, Differentiated Instruction (4)

2) Required Teacher Certification Courses at the Undergraduate Level (19-21 hours)

These courses are not applicable to the Master's degree
SEC ED 4xxx, Curriculum and Methods of Teaching-(3)
SEC ED 4989, Secondary Education Professional Internship (3)
SEC ED 4990, Secondary School Student Teaching (12)
SEC ED 4xxx, Student teaching Seminar (1-3)

3) Teaching Field courses (6 hours minimum)

Selected in consultation with advisor. Should be taken at the graduate level when possible. Only graduate credit can be applied to the Master's degree.

4) Master of Education Required Core Courses (9 hours)

Students should complete initial teacher certification courses before enrolling in the following:
TCH ED 6010, Examining History, Community and Social Justice in Education (3)
TCH ED 6020, Teacher Action, Advocacy & Leadership
TCH ED/ED PSY 6030, Instruction, Learning & Assessment (3)

5) Required Research Course (3 hours)

ED REM 6040, Educational Research for Teachers (3)

6) Capstone Course (3 hours)

Students must enroll in the capstone course during their last 6 hours.

TCH ED 6910, Teacher Action Research Capstone (3)
• Check with your advisor regarding limits on the number of 4000 level courses that can be applied to the Master's degree.
Total minimum 33 graduate hours

Master of Education: Secondary Education with Emphasis in Teaching English to Speakers of Other Languages (TESOL)

The M.Ed. program with emphasis in TESOL is designed to meet the need for teachers who can apply knowledge about

language learning to their culturally and linguistically diverse classrooms. This program meets the requirements for a Missouri Department of Elementary and Secondary Education Teaching endorsement in English to Speakers of Other Languages (ESOL).

1) Required Core (9 hours)

Students are required to complete the following courses within the first 15 hours of study.

TCH ED 6010, Examining History, Community and Social Justice in Education (3)
TCH ED 6020, Teacher Action, Advocacy & Leadership (3)
TCH ED/ED PSY 6030, Instruction, Learning & Assessment (3)

2) Required Research Course (3 hours)

ED REM, 6040, Educational Research for Teachers (3)

3) TESOL Core (18 hours)

TCH ED 6210, Foundations of TESOL (3)
TCH ED 6220, Principles of Second/Foreign language Acquisition (3)
TCH ED 6230, Cross-Cultural Communications in the Classroom (3)
TCH ED 6240, Assessment for TESOL (3)
TCH ED 6250, Methods and Materials for TESOL (3)
TCH ED 6260, Practicum in TESOL (3)

4) Capstone Course (3 hours)

Students must enroll in the capstone course during their last six hours.

TCH ED 6910, Teacher Action Research Capstone (3)

Graduate Certificate in Secondary School Teaching

The Graduate Certificate in Secondary School Teaching prepares those with bachelor's degrees for teaching in high school.

Admission:

Applicants must meet the University's academic requirements in their teaching field and consult a Graduate Certificate in Secondary School Teaching faculty advisor to design their programs of study. In addition, applicants meet with an advisor in the Office of Graduate Education to learn about prerequisites, checkpoints, assessments, and other requirements that may be set by the state or the university. An overall GPA of at least 2.75 is required for admission to the Graduate School.

Requirements:

**GRADUATE LEVEL CERTIFICATION COURSES—
(15 hours Graduate Credit)**

- TCH ED 5311, Foundations of Education (4)
- ED PSY 6109, Learning and Development in Secondary School (4)
- TCH ED 5310, Designing Instruction (3)
- TCH ED, 5312, Differentiated Instruction (4)

CAPSTONE—(3 hours Graduate Credit)

- TCH ED 5989, New Teacher Learning Community I (1)
- TCH ED 5990, New Teaching Learning Community II (2)

Students pursuing a Teaching Certificate in Missouri need to complete the Professional Experience Courses at the undergraduate level which are not part of the Graduate Certificate hours.

- TCH ED 4989, Professional Internship (3)—taken concurrently with
- SEC ED A&S/FAC 4xxx, Curriculum and Methods of Teaching [Subject area] (3)
- TCH ED 4990, Student Teaching (12)
- SEC ED/A&S/FAC 4xxx, [Subject area], Teaching Seminar (1-3)

Graduate Certificate in Teaching English to Speakers of Other Languages

The graduate certificate in Teaching English to Speakers of Other Languages (TESOL) is intended for individuals with a bachelor's degree who would like to advance their knowledge about language learning in culturally and linguistically diverse classrooms. The program is a combination of theory and practice, covering the key concepts, issues and innovative strategies required to apply this knowledge.

Admission

Applicants who wish to earn a Graduate Certificate in TESOL must apply for admission to the certificate program and to the Graduate School at the University of Missouri – St. Louis as a non-degree student or as a Master's or doctoral student. Applicants must have a 2.75 GPA in undergraduate coursework to be admitted. A background in K-12 or adult education is desirable.

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. A program of study, or M-1, should be filed in the first one-third of the program. Students should file an Intent to Complete a Graduate Certificate at the beginning of their last semester. The Graduate Certificate in TESOL requires 18 credit hours of course work, including an entry course (TCH ED 6210):

- TCH ED 6210, Foundations of 6210
- TCH ED 6220, Principles of Second/Foreign Language Acquisition

- TCH ED 6230, Cross-Cultural Communication in the Classroom
- TCH ED 6240, Assessment for TESOL
- TCH ED 6250, Methods and Materials for TESOL
- TCH ED 6260, Practicum in TESOL

**Graduate Certificate in the Teaching of Writing,
Gateway Writing Project**

Jointly housed in the Division of Teaching and Learning and the Department of English, this Graduate Certificate prepares teachers at all levels (K-12, college, adult) to improve their students' performance in writing. The program also emphasizes using writing as a means to promote learning in all content areas. All courses provide opportunities for teachers to write, revise, share feedback, and reflect on their own writing development. Based on the National Writing Project's core belief that teachers of writing must themselves be writers, the Graduate Certificate in the Teaching of Writing brings together sound pedagogy, composition theory, and writing practice.

The Certificate is an 18-hour program through the Gateway Writing Project (GWP); it may also be coordinated with other graduate programs. Certificate courses may be applicable to the M.A. in English with emphasis in composition or to various M.Ed. programs. The GWP Certificate is especially appropriate for post-master's candidates who wish to pursue a specialization in teaching writing. The Graduate Certificate in the Teaching of Writing requires a 12 semester-hour core of courses developed by the Gateway Writing Project: The GWP invitational institute (6 hrs), a designated "topics" course (3 hrs.), and an exit course (3 hrs.). The Certificate requires a minimum of 12 semester hours at the 5000 or 6000 level or above. Electives (6 semester hours) may be chosen from approved offerings in English or Education.

Admission:

Applicants must be admitted to Graduate School and be selected by the faculty admissions committee for the Gateway Writing Project's Certificate in the Teaching of Writing. The committee will review candidates on the basis of an interview, an application essay, and supporting documentation. Criteria include experience teaching writing at any level and academic record, especially in writing and the teaching of writing.

Prerequisites:

- ENGL/SEC ED 4880, "Writing for Teachers" or an equivalent course in teaching writing.
- Coursework or competency in basic computer application.
- Required Core Courses (12 semester hours)**
- ENGL 4850/TCH ED 5850, Topics in the Teaching of Writing (designated topics, 3 sem. hrs)
- ENGL 6880/TCH ED 6880, Gateway Writing Project (6 sem. hrs)
- TCH ED 6890, Seminar in Professional Writing for Teachers (exit course, 3 sem. hrs)

Electives (6 semester hours)

Electives may be chosen from other Gateway Writing Project offerings or from courses offered by the appropriate academic department with advisor's approval. These electives must include at least one more 5000-6000 level course.

Suggested electives applicable to an MA in English with writing emphasis:

ENGL 5840, Theories of Writing
ENGL 5860, Writing/Reading Theory
ENGL 5860, Composition Research
ENGL 5890, Teaching College Writing
ENGL 5800, Modern Linguistics

Suggested electives applicable to an M.Ed. in Elementary or Secondary Education

ELE ED 6387, Literacy Acquisition and Learning for Urban Students
SEC ED 6430, Problems in Teaching English in Secondary Schools
ELE ED 6432, Problems & Research in Language Arts
ELE ED 6482, Problems & Research in Elementary Reading
ED REM 6714, Action Research in Education
Courses in adult and higher education may also be appropriate. For complete information, see *The Gateway Writing Project's Graduate Certificate in Teaching Writing*, available from the English Department, from the Division of Teaching and Learning, and from the GWP Director via Continuing Education & Outreach.

Special Education (SPEC ED)

Undergraduate Studies

Bachelor of Science in Education: Special Education

This 126 credit-hour program is designed for students wishing to teach special education and leads to Missouri Mild/Moderate Disability: Cross Categorical, Grades K-12, teaching certificate. This certificate allows graduates to teach individuals with mental handicaps, learning disabilities, behavior disorders, physical and other health impairments, as well as cross-categorical disabilities; hence graduates have a broad range of employment opportunities.

General Education Requirements (46 hours required):
Students entering college first time, Fall 2002 should refer to the Introductory section of this bulletin for their General Education Requirements.

English and Communication (9 hours)

ENGL 1100, Composition Communication 1030 or
Communication 1040
COMM 1030 or COMM 1040
ENGL 3100

Mathematics (6 hours)

1030, College Algebra (prerequisite for 1150)
1150, Structure of Mathematical Systems I

Science (8-9 hours)

Biology (Laboratory)
Physical Science (Laboratory)

Humanities (8 hours)

MUSIC 3770, Introduction to Music for the Elementary School Teacher (Recommended) plus two courses from art, music, philosophy, or literature

Social Science (15 hours)

PSYCH 1003, General Psychology
HIST 1001, American Civilization, or
HIST 1002, American Civilization
POL SCI 1100, Introduction to American Politics
ECON 3052, Microeconomics for the School Curriculum
Geography 1001 or 1002

Program Requirements (80 hours)

Related Area Requirements (5 hours)

PHY ED 3430, Teaching Health in the Elementary School (3)
PHY ED 3261, Physical Activity of the Exceptional Learner (2)

Level I: Exploring Education as a Profession

TCH ED 2210, Introduction to Teaching (3)
TCH ED 2211, Introduction to Schools (3)
TCH ED 2212, Introduction to Learners (3)

Level II: Analyzing the Nature and Process of Education

TCH ED 3310, Introduction to Instructional Methods (3)
TCH ED 3312, Psychology of Teaching and Learning (3)
TCH ED 3313, Psychology of the Exception Child (3)
TCH ED 3315, Literacy Learning and Instruction (3)
CNS ED 3220, Counseling Individuals with Special Needs (3)
SPEC ED 4315, Speech and Language Problems of Exceptional Children (3)
SPEC ED 4342, Transitions Issues and Planning (3)
SPEC ED 3345, Cross Categorical Special Education I (3)
ED REM 3721, Psychoeducational Assessment and Evaluation (3)

Level III: Synthesizing Theory and Practice in Education

ELE ED 3336, Communication Arts Learning and Instruction (3)
ELE ED 4246, Teaching Mathematics in the Elementary School (3)
ELE ED 4253, Teaching Social Studies in the Elementary School (3)
ELE ED 4341, Teaching Science in the Elementary School (3)

Must take the following 6 hour credit courses during the same semester as Special Education Professional Internship (SPEC ED 4989)

ELE ED 4342, Addressing Needs in Mathematics Teaching & Learning (3)

SPEC ED 3346, Literacy Assessment & Reading for Students with Special Needs (3)

SPEC ED 3349, Cross Categorical Special Education II (3)

SPEC ED 4989, Special Education Professional Internship (3)

Student Teaching

SPEC ED 4990, Student Teaching in Elementary Education (6)

SPEC ED 4991, Student Teaching in Special Education II (6)

Note: SPEC ED 4990 and SPEC ED 4991 must be taken during the same semester.

Attention education majors: Professional education courses must be completed with a grade point average of 2.5 and no grade lower than a C.

Total: Minimum of 126 hours

Graduate Studies

Master of Education: Special Education

The M. Ed. Program in special education includes a representation of the important core knowledge in Special Education. The primary goal is to empower professionals to be thoughtful teachers who use best practice when working with students with disabilities. Research and data-based decision making are emphasized throughout the program. Graduate students will translate research into practice in multiple courses and learn to analyze multiple types of assessment data. The M. Ed. Program in Special Education consists of an initial required core of courses; an opportunity to develop an area of specialization; and a capstone or exit course.

When graduate students are accepted into the program they are required to have their transcripts analyzed for state certification discrepancies. Students who wish to be certified in cross-categorical disabilities will be required to fulfill general certification requirements as well as graduate coursework. Upon completion of this advanced degree, professionals will have developed an in-depth knowledge-base related to

- various learning contexts within and outside of the school setting
- the multiple influences on educational practices in schools
- the characteristics and instructional needs of learners with disabilities
- assessment strategies for monitoring instruction
- instructional best practice
- using research to direct practice in the classroom
- diversity
- contexts that affect student learning

- the powerful interactions between setting events and specific learner outcomes
- a life-perspective of students with exceptional learning needs that addresses the need to successfully meet the needs of young children who transition into kindergarten as well as preparing older students for their transition into adulthood.

1) Required Core (9 hours)

Students are required to complete the following courses within the first 15 hours of study.

TCH ED 6010, Examining History, Community and Social Justice in Education (3)

TCH ED 6020, Teacher Action, Advocacy & Leadership (3)

TCH ED/ED PSY 6030, Instruction, Learning & Assessment (3)

2) Required Research Course (3 hours)

ED REM 6040, Educational Research for Teachers (3)

3) Special Education Concentration (12 hours)

SPEC ED 6325, Advanced Behavior Management (3)

SPEC ED 6415, The Law & Special Education (3)

ED PSY 6545, Consultation in Schools and Other

Settings (3)

SPEC ED 6441, Instructional Methods for Exceptional Learners (3)

Special Education Concentration Electives (6 hours)

Students may select at least 6 hours in one of the following concentration areas or any combination of 6 hours of special education electives with the approval of their advisor.

Positive Behavior Support

SPEC ED 6435, Schoolwide Systems of Positive Behavior Support (3)

SPEC ED 6436, Individual Systems of Positive Behavior Support (3)

Cross Categorical

SPEC ED 6345, Characteristics of Cross Categorical Disabilities (3)

SPEC ED 6349, Education of Learners with Cross Categories Disabilities (3)

Developmental Disabilities

SPEC ED 6430, Characteristics of Developmental Disabilities (3)

SPEC ED 6431, Education of Learners with Developmental Disabilities (3)

Learning Disabilities

SPEC ED 6443, Characteristics of Learning Disabilities (3)

SPEC ED 6444, Education of Learners with Learning Disabilities (3)

Emotional/Behavioral Disorders

SPEC ED 6450, Characteristics of Emotional/Behavioral Disorders (3)

SPEC ED 6452, Education of Learners with Emotional/Behavior Disabilities (3)

Early Childhood Special Education

SPEC ED 6462, Introduction to Early Childhood Special Education (3)

SPEC ED 6463, Curriculum, Methods, and Materials for Early Childhood Special Education (3)

Disability Studies

SPEC ED 6410, Families and Schools in Inclusive Communities (3)

SPEC ED 6411, Law, Policy and Bureaucracy in Education and Disability Studies (3)

5) Capstone Course (3 hours)

Students must enroll in the capstone course during their last semester.

TCH ED 6910, Teacher Action Research Capstone (3)

Total hours: minimum 33 credit hours

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, and 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.

Course Descriptions

Courses in this section are grouped as follows: Early Childhood Education (ECH ED), Educational Foundations (ED FND), Educational Technology (ED TECH), Elementary Education (ELE ED), Middle Education (MID ED), Physical Education (PHY ED), Secondary Education (SEC ED), and Special Education (SPEC ED), and Teacher Education (TCH ED).

Prerequisites may be waived by consent of the department.

Early Childhood Education (ECH ED)

3303 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 3313, Curriculum and Practice: Infant/Toddler.

3304 Curriculum and Practice Laboratory: Preschool (1)
Classroom experience in preschool classrooms under direction of university personnel. Must be taken concurrently with ECH ED 3314, Curriculum and Practice: Preschool.

3305 Curriculum and Practice Laboratory: Primary (1)
Classroom experience in primary classrooms under direction of university personnel. Must be taken concurrently with ECH ED 4315, Curriculum and Practice: Primary.

3312 Introduction to Early Childhood Education (3)
Prerequisites: Level I and TCH ED 3310, and TCH ED 3312. 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.

3313 Curriculum and Practice: Infant/Toddler (2)
Prerequisite: ECH ED 3312. Focuses on planning integrated curriculum for child from birth to 30 months. Includes working with parents and community resources. Lab required.

3314 Curriculum and Practice: Preschool Education (2)
Prerequisite: ECH ED 3312. 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.

3332 Literacy, Learning and Instruction for the Young Child (3)
Prerequisites: Level I and Level II. Attention on the home language and environment of young children as they construct knowledge of print from birth to age eight. Critical examination of the range of opportunities for early literacy learning available to children from economically advantaged and disadvantaged communities. Emphasis on meaningful, culturally, and developmentally appropriate activities for fostering beginning reading and writing. Focus on strategies for involving families and capitalizing on community resources in promoting language and literacy learning for young children. Eight hours of involvement in an early childhood setting is required. This course may be applied toward a Literacy Minor.

4315 Curriculum and Practice: Primary Education (2)
Prerequisite: ECH ED 3312. 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.

4317 Assessing Individual Needs for Early Childhood Instruction (3)

Prerequisites: Level I and Level II, admission to the teacher education program, ECH ED 3312. Techniques of observing children and using assessment instruments to plan an individualized program for early childhood. Practicum experience required.

4320 Classroom Management (3)

Prerequisites: Level I and II courses or consent of instructor. Same as SPEC ED 4320, ELE ED 4320, SEC ED 4320. Understanding classroom management as the development of engaging instruction that establishes healthy and culturally appropriate teacher-student relationships, builds successful classroom community and enhances student learning. Participants develop a culturally relevant classroom management plan that includes rules, procedures, expected behaviors and uses problem solving strategies to resolve behavior problems. Emphasis is on the teacher developing the social competence of Pre K-12 students within culturally diverse classrooms and engaging families in supportive interactions.

4331 Language Acquisition and Development in Early Childhood (3)

Prerequisite: ED PSY 3312. 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.

4346 The Acquisition of Mathematical Concepts (3)

Prerequisites: Formal admission to the Teacher Education Program, ED PSY 3312, and MATH 1050. Applications of the major theorists to mathematics reasoning. Content is appropriate for pre-k to third grade 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.

4990 Student Teaching in Early Childhood Education I (6)

Prerequisites: Level II, ECH ED 3313, ECH ED 3314, ECH ED 4989. Must be taken with ECH ED 3291, and must immediately precede ECH ED 3291 in the semester. This course is an intensive professional development experience (9 hours per week for 14 weeks) working in primary and/or preschool classroom with students. Activities on site include assisting the classroom teacher in all areas of instruction, assessment, and classroom management. This course is to be taken during the semester immediately preceding student teaching. Not available for graduate credit.

4991 Student Teaching in Early Childhood Education II (6)

Prerequisites: Level II, ECH ED 3313, ECH ED 3314, ECH ED 4989. Must be taken concurrently with ECH ED 4991,

and must immediately precede ECH ED 4991 in the semester. Must follow ECH ED 4990 in the same 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 4990 assignments, required of all majors in early childhood education. Not available for graduate credit.

6321 Parent and Community Resources in Early Childhood Education (3)

Prerequisite: Graduate standing. 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.

6413 The Educational Role of Play (3)

Prerequisite: ECH ED 3312 or equivalent. Emphasizes play as a constructive process with applications to cognitive and social development. Special attention to facilitating play in early childhood classrooms.

6415 Organization and Development of Early Childhood Programs (3)

Prerequisites: ECH ED 3312 or equivalent. Strategies for the effective organization and development of programs for children from diverse cultures, ages birth through eight years, will be studied. Research and theory in funding and budgeting, staffing and professional development, selection, development, and assessment of program curriculum will be emphasized. Long-range planning for program stability and involvement in advocacy issues will be covered.

6490 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.

6497 Problems (1-10)

Prerequisite: Graduate standing. Individual study on topics pertaining to early childhood education.

Educational Foundations (ED FND)

6421 Philosophy of Education (3)

Same as PHIL 6421. Prerequisites: Graduate standing or consent of instructor. Critical examination of selected issues in education from the perspective of Western philosophy. Topics may include the distinctive features of education as an activity and achievement, concepts of teaching and

learning, relations between education and values, and the role of public educational institutions.

6422 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.

6435 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.

Educational Technology (ED TECH)

5301 Introduction to Computers and the Internet in Education (3)

The course focuses on how computers and the Internet have changed teaching and learning; how teachers can facilitate learning in inquire-based, technology-rich classrooms; and on the design and implementation of technology-rich activities and projects. Introduces students to the networked computer as an instructional tool. Course participants will be introduced to how teachers and their students can use computer tools in appropriate ways for different content areas and educational levels. Practices to be explored include making presentations; searching for information and educational resources; organizing, writing, and displaying information and data.

5340 Selection and Utilization of Educational Multimedia (3)

Prerequisites: ED TECH 5301 or consent of instructor. Prepares students for selecting and utilizing multimedia technologies for learning. Students will conduct projects involving educational multimedia programs available on computers or over telecommunications networks. The projects will incorporate graphics, sound, and video. The goal of working on these projects is to prepare students to facilitate others' use of multimedia in classrooms and other educational contexts.

6404 Seminar (1-10)

Prerequisites: ED TECH 5340 or consent of instructor. Seminar in educational technology addressing special issues and topics not normally included in the regular educational technology courses.

6415 Teaching and Learning with Technology: Authoring Tools (3)

Prerequisite: ED TECH 5340 or consent of instructor. A practical course in the design and development of computer-based educational materials and activities, utilizing "authoring" software tools. Authoring tools allow the development of interactive multimedia educational modules without the need for command-line programming. Emphasis

will be placed on principled, theoretically sound, learner-centered design that meets curriculum needs.

6416 Teaching and Learning with Technology: Graphical Representational Tools (3)

Prerequisites: ED TECH 5340 or consent of instructor. Examines how graphical representation tools can be used to enhance teaching and learning. Students will learn about techniques for visualizing and organizing information and data in science, math, the social sciences, and humanities, and will become familiar with research and practice pertaining to their use in a variety of learning activities and projects.

6417 Teaching and Learning with Technology: Geographic Information Systems (GIS) (3)

Prerequisites: ED TECH 5340. Provides a foundational understanding of the Geographical Information System (GIS) and how it is integrated into middle and high school classrooms. Students will learn how to represent data used in schools and carry out projects that can be used in middle and high school classrooms.

6435 Instructional Technology and Education Reform (3)

Prerequisite: ED TECH 5340 or consent of instructor. Students will learn how to foster changes in uses of technology for learning in schools, based on a historical understanding of previous technology reforms, and a critical assessment of recent reforms. Questions addressed include: What did stakeholders predict and hope for with earlier educational technologies, early uses of the computer and networking, and present technological innovations? What actually happened? Why? How can teachers and other educators help foster and spread effective use of technology for learning?

6436 Computer-Mediated Communication in Education (3)

Prerequisite: ED TECH 5340 or consent of instructor. Explores the theory, research, and practice of using computer-mediated communication and computer-supported collaborative learning in education. Learning environments including elementary, secondary, higher, and adult education will be considered.

6437 Distance Learning via Networks and Telecommunications (3)

Prerequisite: Graduate standing. This course is an investigation in the ways the learning and teaching across the barriers of time and distance are similar to and different from face to face learning and teaching. Students will study the influence of interactive media: Videoconferencing, asynchronous discussions and other commonly used methods.

6444 Cognition and Technology (3)

Same as ED PSY 6444. Prerequisites: ED PSY 6111 or consent of instructor. Examines cognitive theories and computer-based tools for learning. Students will gain a

critical understanding of the relationship between the design of technological tools, the use of those tools in educational settings, and their implications for learning.

6448 Technology-Supported Inquiry Learning (3)

Same as ED PSY 6448. Prerequisites: ED TECH 5340 and ED PSY 6310 or consent of instructor. Educational technology such as networked computers and software can play a supportive role in inquiry-based learning. Students will explore the theoretical background, design issues, and pragmatic realities of technology-supported inquiry learning environments. Such learning environments are best understood as systems involving social, cultural, material and psychological aspects. Consideration will be given to the important properties of settings, activities and technologies, as well as to the role of instructors.

6449 Using Technology in Administration Processes (3)

Same as ED ADM 6449. Prerequisites: A course in measurement, statistics or evaluation, or consent of instructor. The course will explore how the use of data analysis with technology can be applied in the administration of schools or other work settings. Administrators will explore software tools and their implications for making decisions. A case study will be completed on the implementation of a technology in a school or other appropriate setting.

6452 Educational Multimedia Design (3)

Prerequisite: ED TECH 5340 or consent of instructor. Examines principles and techniques for design of visually and functionally effective multimedia educational resources. Emphasis on techniques for computer-based production of materials incorporating text, graphics, and video. Rapid prototyping and evaluation techniques incorporated.

6454 Instructional Video Production (3)

Prerequisites: ED TECH 5340 or consent of instructor. Elements of digital video production will be studied and used to produce video for a variety of formats. Students will develop the skill to produce and stream programs for school news programs, video annuals, documentaries and staff development programs.

6460 Technology Coordination in Schools (3)

Prerequisite: ED TECH 5340 & 6444 & 6448 or consent of instructor. This course provides theoretical and practical knowledge for implementing technology in schools. A major focus will be placed on analyzing the total cost of implementations and methods for measuring educational success.

6462 Technical System Implementation for Educational Technology – Part I (3)

Prerequisites: ED TECH 5340. Provides a foundational understanding of technical systems used in educational institutions, with a special emphasis on preparing and configuring computers to connect to a network. Students will learn theory and practice enabling them to install,

troubleshoot and configure networked computers for educational purposes.

6463 Technical System Implementation for Educational Technology – Part 2 (3)

Prerequisites: ED TECH 6462. Provides an in-depth understanding of technical systems used in educational institutions, with a special emphasis on preparing and configuring computers to connect to a network. Students will extend their knowledge of theory and practice, and will install, troubleshoot and configure networked computers for educational purposes.

6490 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.

6497 Problems (1-10)

Prerequisite: ED TECH 5340 or consent of instructor. Individual study on topics pertaining to educational technology.

Elementary Education (ELE ED)

2179 Art Activities for Elementary Schools (3)

Same as ART 2179. 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.

2192 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.

3277 Curriculum and Methods of Teaching Elementary School Music (3)

Prerequisites: MUSIC 2311, 2312 and Level 1 Education courses. Same as MUSIC ED 3570. Prerequisites: MUSIC 2311 and ED FND 1111. 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.

3330 Literacy, Literature and the Learner (3)

Prerequisite: Level I and Level II. Exploration of literature and literacy-related resources available to teachers for children and young people. Emphasis on critical reading of literature for a variety of purposes, including communication, instruction, information, and recreation.

Focus on the development of criteria for evaluating and selecting culturally and developmentally appropriate materials for motivating students to read in school and at home, as well as strategies for using literature to build family and school partnerships around reading. Twelve hours of participation in a school classroom setting are required. This course may be applied toward a Literacy Minor.

3336 Communication Arts Learning and Instruction (3)

Prerequisites: Level I and Level II. Analysis of the six communication arts including listening, speaking, viewing, visually representing, writing, and reading across content areas. Attention on understanding children's home language and how children learn and develop communication skills. Special emphasis on strategies for assessing and teaching reading and writing, including workshop models, spelling, grammar, and grand conversations to meet the needs of every child. Twelve hours of involvement in a school classroom setting required. This course may be applied toward a Literacy Minor.

3389 Classroom Based Assessment to Guide Literacy Instruction (3)

Prerequisites: TCH ED 3315 or TCH ED 4391 or equivalent reading methods course. Strategies for differentiating instruction for a range of readers and writers across content areas. Focus on cultural and language considerations in the assessment of students' literacy skills. Emphasis on meeting the needs of individual readers and writers in the context of whole class instruction. Twelve hours of participation in a school classroom setting are required. This course may be applied toward a Literacy Minor.

3390 Elementary School Student Teaching III (6)

Prerequisites: ELE ED 3291 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.

4246 Teaching Mathematics in the Elementary School (3)

Prerequisites: ED FND 1111, 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.

4253 Teaching of Social Studies in the Elementary School (3)

Prerequisites: ED FND 1111, 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.

4320 Classroom Management (3)

Same as SPEC ED 4320, ECH ED 4320, SEC ED 4320. Prerequisites: Level I and II courses or consent of instructor. Understanding classroom management as the development of engaging instruction that establishes healthy and culturally appropriate teacher-student relationships, builds successful classroom community and enhances student learning. Participants develop a culturally relevant classroom management plan that includes rules, procedures, expected behaviors and uses problem solving strategies to resolve behavior problems. Emphasis is on the teacher developing the social competence of PreK-12 students within culturally diverse classrooms and engaging families in supportive interactions.

4341 Teaching Science in the Elementary School (3)

Prerequisites: Level I and Level II. An analysis of teaching science to elementary school children with emphasis on current science education trends, science curricular materials, and strategies of instruction.

4342 Addressing Needs in Mathematics Teaching & Learning (3)

Prerequisite: ELE ED 4246. Instructional strategies for analyzing and addressing needs of students who have difficulties understanding and becoming proficient in mathematics. Conceptual development and procedural fluency are approached in a diagnostic and prescriptive context. Course requires that students participate in K-12 classrooms for a minimum of 10 hours, in addition to university class schedule.

4346 Advanced Methods in Elementary School Mathematics (3)

Prerequisites: ELE ED 4246 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.

4989 Elementary Education Professional Internship (3)

Prerequisites: Level 1 & Level 2 requirements. This course is an intensive professional development experience (9 hours per week for 14 weeks) working in an elementary school setting with students. Activities on site include assisting the classroom teacher in all areas of instruction, assessment, and classroom management. Particular emphasis will be given to literacy development. This course is to be taken during the semester immediately preceding student teaching. This course is to be taken in conjunction with ELE ED 4253, ELE ED 4246 and ELE ED 4341. Assignments from these allied courses are carried out in the Internship, and Internship experiences inform the activities and discussions in these courses. Not available for graduate credit.

4990 Elementary School Student Teaching I (6)

Prerequisites: Completion of Level III and admission to teacher education program. Clinical teaching experience in elementary school classrooms under university and school supervision. Required for all majors in elementary education. Not available for graduate credit.

4991 Elementary School Student Teaching II (6)

Prerequisite: Completion of Level III courses. Clinical teaching experience in elementary school classrooms under university and school supervision. Required for all majors in elementary education. Not available for graduate credit.

6387 Literacy Acquisition and Learning for Urban Students (3)

Prerequisites: Graduate standing. Designed to extend teacher understanding of children's literacy acquisition, development, and learning through the elementary grades. Emphasis on development of a teaching philosophy and skills which include maintaining effective literacy learning environments in urban classrooms, fostering culturally responsive classroom communities, understanding social and environmental issues that affect the literacy learning of urban learners, using effective methods and materials to develop engaged and literate students, and fostering children's participation in literacy activities.

6410 Current Research in Early Childhood and Elementary Program (3)

Prerequisite: Graduate admission. A systematic examination of research related to early childhood and elementary school programs. Students will be expected to become more effective consumers of education research and to utilize appropriate research findings in their decision-making processes when planning instruction.

6411 Curricular Issues in Early Childhood and Elementary Programs (3)

Prerequisite: ELE ED 6410. Selected contemporary problems that affect classroom decisions. Technology, literacy, meeting individual needs, diversity, and dealing with discipline are studied through investigative discussions, reading, and a research paper.

6422 Curriculum Construction in Early Childhood and Elementary Programs (3)

Prerequisite: ELE ED 6410 and 6411. A study of current and classic curricular models early childhood and elementary education. Using developmental learning theory, students will select appropriate curriculum and develop activities for the early childhood or elementary classroom. Students begin a research project by gathering data and evaluating curricular designs from the models studied.

6423 Curricular Implementation in the Early Childhood and Elementary Programs (3)

Prerequisite: ELE ED 6422. Implementation of a culminating project designed in ELE ED 6422. Students will study implementation and evaluation strategies for the

project. The project will be implemented during the semester and students will conduct an evaluation of the project by the end of the semester.

6426 Elementary School Curriculum Reform in the Earth/Space Sciences (1-4)

Prerequisite: Graduate standing. Field-based experiences in improving the district-level elementary school science program, with special attention to the earth/space sciences. Emphasis is given to planning and implementing standards-based inquiry on selected science topics that include connections to other curricular areas. The course is organized into 4 non-overlapping modules. Credit hours are determined based on number of modules completed. To reflect the number of modules selected by the student, this course may be repeated for a maximum of 4 credit hours.

6428 Elementary School Curriculum Reform in the Life Sciences (1-4)

Prerequisite: Graduate standing. Field-based experiences in improving the district-level elementary school science program, with special attention to the life sciences. Emphasis is given to planning and implementing standards-based inquiry science activities that include connections to other curricular areas. Credit to be determined by instructor.

6429 Elementary School Curriculum Reform in the Physical Sciences (1-4)

Prerequisites: Graduate standing. Field-based experiences in improving the district-level elementary school science program, with special attention to the earth/space sciences. Emphasis is given to planning and implementing standards-based inquiry on selected science topics that include connections to other curricular areas. The course is organized into 4 non-overlapping modules. Credit hours are determined based on number of modules completed. The course may be repeated for a maximum of 4 credit hours.

6436 Children's Literature I: Survey and Analysis (3)

Prerequisite: ELE ED 3330 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.

6441 Problems and Research in Teaching Elementary School Science (3)

Prerequisites: Eight hours of science, ELE ED 4341, and ED PSY 6111. 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.

6442 Elementary School Curriculum Reform in the Health Sciences (1-4)

Prerequisites: Graduate Standing. Field-base experiences in improving the district-level elementary school science program, with special attention to the health sciences. Emphasis is given to planning and implementing standards-based inquiry on selected science activities that include connections to other curricular areas. The course is organized into 4 non-overlapping modules. Credit hours are determined based on numbers of modules completed. The course may be repeated for a maximum of 4 credit hours.

6443 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.

6445 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.

6446 Curriculum and Methods of Teaching Measurement in Mathematics: Metric and Standard Systems (3)

Prerequisite: ECH ED 4346 or ELE ED4246. 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.

6447 Problems and Research in Teaching Elementary School Mathematics (3)

Prerequisite: ELE ED 6445. 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.

6448 Diagnosis and Remediation of Disabilities in Learning Mathematics (3)

Prerequisite: ELE ED 6445. Causes of mathematical disabilities. Materials and techniques for diagnoses and corrective programs for children and youth.

6450 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.

6482 Problems and Research in Teaching Elementary School Reading (3)

This is the capstone course for the Master of Elementary Education-Emphasis in Reading. To be taken in the last 9 hours of Masters Program. The three foci for this course are (1) systematic study of research as it focuses on the problems of teaching reading in the elementary school, (2) innovations in the field, and (3) action research. Each student designs and completes an action research project related to literacy.

6490 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.

6493 Reading Specialist Practicum I (3)

Prerequisites: ELE ED 6684, ELE ED 6686, and ED REM 6707, 6709, or 6716. Application of reading theory and research in a supervised setting. Emphasis on assessing and analyzing the literacy strengths, needs, and interests of a range of readers with the goal of improving their reading abilities and attitudes. Focus is on establishing reading support for children with the assistance of formal and informal assessments, reading professionals, educators, and children's families.

6494 Reading Specialist Practicum II (3)

Prerequisite: ELE ED 6493. Application of reading theory and research in a supervised setting. Emphasis on using appropriate materials and providing effective instructional techniques to address children's assessed literacy strengths, needs, and interests with the goal of improving their reading abilities and attitudes. Focus is on sustaining reading support for children with the assistance of other reading professionals, educators, and children's families.

6495 Supervision of Practicum in Clinical Reading (3)

Prerequisites: ELE ED 6486, ELE ED 6494, ED REM 6716 or consent of instructor. Supervising graduate students in diagnosis and remedial process within the reading clinic.

6497 Problems (1-10)

Selected problems to meet the needs of individual students.

6630 Communication Arts Instruction (3)

Designed to extend teacher understanding of children's acquisition, development, and learning of the six communication arts. Emphasis on development of a teaching philosophy and skills in which children actively engage in reading, writing, listening, speaking, viewing and visually representing. Focus on developing culturally responsive classroom communities using effective methods and materials to engage children while fostering their participation in authentic communication arts activities.

6684 Instructional Strategies for Teaching Reading (3)

Prerequisite: Graduate standing. Designed to extend teacher knowledge of effective instructional strategies for teaching reading. Emphasis on development of a teaching philosophy which acknowledges children gain considerable knowledge about reading from their families and communities, long before they encounter formal reading instruction. Focus on fostering culturally responsive classrooms using children's prior experiences, their language systems, cross-cultural literature, authentic texts, and other print materials familiar to children's home environments, as well as on teaching effective strategies to promote children's reading success.

6686 Analysis and Correction of Reading Disabilities (3)

Prerequisites: ED REM 6707, 6709, or 6716 and at least one graduate level literacy course. Designed to develop teacher understanding of the roles and responsibilities of the teacher of reading, Reading Specialist, and Literacy Coach. Emphasis on the nature of specific reading difficulties, distinguishing reading difficulty/disability from language difference, becoming familiar with a range of tools for assessing reading skills and strategies, and developing a critical orientation for evaluating the purpose and utility of various literacy assessment tools. Teachers will use informal and formal literacy assessment tools to guide instructional planning for children in the UMSL Reading Center.

6688 Literacy Assessment to Guide Instruction (3)

Prerequisites: ED REM 6707, 6709, or 6716 and ELE ED 6686. Designed to apply teacher knowledge of the roles and responsibilities of the teacher of reading, Reading Specialist and Literacy Coach. Emphasis on using literacy assessment tools and techniques to guide instruction for a range of children, especially in the areas of writing, comprehension and vocabulary. Teachers will use informal and formal literacy assessment tools to guide instructional planning for children in the UMSL Reading Center.

Middle Education (MID ED)

4246 Teaching Mathematics in the Middle School (3)

Prerequisites: Level 1 & Level 2 and completion of mathematics area of concentration. A study of the middle school math curriculum with state standards and appropriate instructional strategies, materials and assessments.

4253 Teaching Social Studies in the Middle School (3)

Prerequisites: Completion of Level 1 and Level 2 courses. Study of middle 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. A minimum of 30 field experience hours are required.

4315 The Middle Level School (3)

Prerequisites: Level 1 and admission to teacher education program. An in-depth study of the philosophical and

historical basis of middle level schools, including a review of the research as the basis for organization, current trends and practices.

4316 Middle Level Curriculum and Instruction (3)

Prerequisites: Completion of Level I and MID ED 4315. 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.

4317 The Middle-Level Child (3)

Prerequisites: Completion of Level 2. Developmental characteristics and needs of early adolescents are studied through field experience in middle school classrooms. The relationship between needs and behavior is explored and skills for effective student teacher relationship are highlighted. This course is to be taken concurrently with MID ED 4989.

4350 Teaching Science in the Middle School (3)

Prerequisites: Level 1 and Level 2 or equivalent preparation. Students will analyze both methodology and content, develop scientific thinking by learning and applying different and appropriate teaching and learning strategies and become acquainted with technological advances in teaching science. Students will have opportunities to use informal and formal assessment as well as design and use original science activities and instruction for all areas of science.

4989 Middle Level Education Professional Internship (3)

Prerequisites: Level 1 & Level 2 requirements, MID ED 4315, MID ED 4316. This course is an intensive professional development experience (9 hours per week for 14 weeks) working with students in a middle school setting. Activities on-site include assisting the classroom teacher in all areas of instruction, developing instructional materials, assessment, and classroom management. This course is to be taken prior to student teaching, ideally during the semester immediately preceding student teaching. This course should be taken concurrently with MID ED 4317. Not available for graduate credit.

5220 Science for the Middle School Teacher (5)

Prerequisites: 10 hours of science at the college level. This course is intended to provide science content and pedagogical methods for middle school teachers. Science content includes investigations of the properties of solids and solutions, chemical changes, and conservation of matter, forces and simple machines, food webs, the environment and ecosystems, heat and radiation, waves and diffraction, and static electricity and currents.

Physical Education (PHY ED)

Prerequisites may be waived by consent of the department or the instructor.

1124 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.

2132 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.

2134 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.

3204 Special Topics in Physical Education (1-3)

Prerequisite: Consent of instructor. Independent study through readings, reports, field study, or research.

3261 Physical Activity for the Exceptional Learner (2)

Prerequisites: SPEC ED 3311 and SPEC ED 3313. 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.

3267 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.

3275 Psychological Aspects of Physical Education (3)

Prerequisites: Psych 1003. 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.

3276 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.

3277 Historical and 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.

3280 Human Anatomy and Physiology (5)

Prerequisite: BIOL 1012 and BIOL 1003 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.

3282 Physical Growth and Motor Development (3)

Prerequisite: PSYCH 2270. 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.

3283 Kinesiology (3)

Prerequisite: PHY ED 3280. Study of the biomechanics of human motion with particular application to performance in sport activities.

3284 Physiology of Human Exercise (3)

Prerequisite: PHY ED 3280. 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.

3285 Sports Medicine (3)

Prerequisite: PHY ED 3280 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.

3287 Seminar in Exercise Science (3)

Prerequisites: PHY ED 3283, 3284, or 3285. A review of current topics in the area of exercise science. Focus is on research and practice in various subdisciplines in the field. An emphasis will be placed on application of research to professional situations. Some field experience may be required.

3422 Teaching of Skills: Grades PK-4 (4)

Prerequisite: Completion of 27 designated credit hours of Level II courses. 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.

3423 Teaching of Skills: Grades 5-9 (4)

Prerequisite: Completion of 27 designated credit hours of Level II courses. 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.

3424 Teaching of Skills: Grades 9-12 (4)

Prerequisite: Completion of 27 designated credit hour of Level II courses. 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.

3425 Teaching of Skills: Movement, Dance and Rhythms (3)

Prerequisites: Completion of 27 credit hours of Level II courses. Study of movement analysis and techniques of teaching fundamental movement skills, rhythmic activities, creative movement, and dance, including folk, square, ballroom, modern, and jazz, in school settings. Emphasis will be given to biomechanical analysis of movement, developmental sequences of fundamental movement, application of motor learning concepts, and design and preparation of appropriate instructional experience and materials.

3430 Teaching Health in the Elementary School (3)

Prerequisites: Level I courses and admission to teacher 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.

3434 Teaching Wellness and Health-Related Fitness (4)

Prerequisite: PHY ED 3280 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.

3465 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.

3468 Curriculum and Methods of Teaching Physical Education (3)

Prerequisite: TCH ED 2210 or equivalent. 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.

4989 Physical Education Professional Internship (3)

Prerequisites: Level II designated course requirement. This course is an intensive professional development experience (9 hours per week for 14 weeks) working in a school setting with students. Activities on site include assisting the classroom teacher in all areas of instruction, assessment, and classroom management. This course is to be taken prior to student teaching, ideally during the semester immediately preceding student teaching. Assignments from allied courses (PHY ED 3422, 3423, 3424) are carried out in the Internship, and Internship experiences inform the activities and discussions in these courses. Not available for graduate credit.

4990 Student Teaching in Physical Education: PK-5 (6)

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. Not available for graduate credit.

4991 Student Teaching in Physical Education: 5-9 (6)

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 only K-9 certification in physical education. Not available for graduate credit.

4992 Student Teaching in Physical Education: 9-12 (6)

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 K-12 certification in physical education. Not available for graduate credit.

5240 Community Health Education (3)

Prerequisites: TCH ED 2211 or equivalent, junior or graduate standing, or permission of instructor. Study of community health issues and programs, within the school and the community, including spread and control of communicable diseases. Treatment and prevention programs, community resources, and educational issues for both communicable and chronic diseases will be examined.

5248 Teaching Health in the Secondary School: Grades 9-12 (3)

Prerequisites: TCH ED 2211 or equivalent, junior or graduate standing, or permission of instructor. Study of methods of health education in the secondary school. Class will examine instructional program, ways to provide healthful environment in the school, and health services for high school student.

5330 Prescribing Physical Activity (3)

Same as GERON 5330. Prerequisite: PHYS ED 3280 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.

5380 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.

5931 Adult Exercise Leadership (3)

Prerequisites: PHY ED 3284 or equivalent. A study of the roles, functions, and skills necessary to become certified as an American College of Sports Medicine Health/Fitness Instructor for adult exercise programs.

5990 Student Teaching in Physical Education III (5)

Prerequisites: PHY ED 3991 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.

5992 Internship in Physical Gerontology (1-10)

Same as GERON 5992. Prerequisites: PHY ED 1190 or consent of instructor. 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.

6404 Seminar in Physical Education (1-10)

Prerequisites: Graduate Standing. Seminar in health and physical education addressing special topics not normally included in the regular health and physical education courses. May be repeated up to ten hours.

6462 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.

6464 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.

6474 Psychological Dynamics of Sport Performance (3)

Prerequisite: PHY ED 3275 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.

6475 Motor Learning and Control (3)

Prerequisite: PHY ED 3275 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 neuralgic 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.

6476 Social Inquiry of Sport (3)

Prerequisite: PHY ED 3276 or consent of instructor. A study of basic social processes in sport, such as socialization, social facilitation, and assimilation.

6478 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.

6482 Life Span Perceptual and Motor Development (3)

Prerequisite: PHY ED 3282 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.

6483 Biomechanics of Sport Techniques (3)

Prerequisite: PHY ED 3283 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.

6484 Physiological Bases of Physical Performance (3)

Prerequisites: PHY ED 3280 and PHY ED 3284 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.

6485 Theory of Exercise and Cardiovascular Disease Risk Factor Management (3)

Prerequisite: Completion of PHY ED 6484 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.

6497 Problems (1-10)

Prerequisite: Consent of instructor. Selected problems to meet the needs of individual students.

6990 Internship (1-10)

Prerequisite: Consent of instructor. Closely supervised experience in a field setting under the direction of a graduate faculty member. An appropriate level of competence and evidence of growth in the professional role must be demonstrated by the intern. The internship will include planning, research, evaluation, and related professional activities.

7492 Directed Readings in Curriculum and Instruction (1-6)

Prerequisites: Graduate standing, one graduate course in curriculum and instruction, and consent of instructor. Independent study into the current research, literature, and issues in the areas of physical education and curriculum and instruction.

7494 Directed Readings in Motor Behavior (1-6)

Prerequisites: Graduate standing, one graduate course in motor behavior, and consent of instructor. Independent study into the current research, literature, and issues in the area of motor behavior.

Secondary Education (SEC ED)

3240 Curriculum and Methods of Teaching Physical Sciences (3)

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

3277 Curriculum and Methods of Teaching Middle School/Junior High School General Music (2)

Prerequisites: MUSIC 2311 and 2312. MUSIC 3570/ELE ED 3277, and Level I Education courses. Concurrent registration in MUSIC 3670/SEC ED 3275 and MUSIC 3710/SEC ED 3279. Same as MUSIC 3690. 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.

3328 Art Education: Theory to Practice (3)

Same as ART ED 3328. Prerequisites: TCH ED 2210, 2211, 2212 and completion of Foundation Art Program. Development and application of concepts related to comprehensive art education and standards-based curriculum in art education, with an examination of current theories, trends, publication, and on-line resources in the field.

4011 The Curriculum and Methods of Teaching History and Social Studies (3)

Same as HIST 4011. Prerequisites: Junior standing and TCH ED 3310. 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. This course must be taken in conjunction with SEC ED 3289, Secondary Education Professional Internship. May not count toward history hours required for history major. Must be completed prior to student teaching. This course must be completed in residence. Not available for graduate credit.

4012 Social Studies Teaching Intern Seminar (1)

Same as HIST 4012. Prerequisites: Concurrent enrollment with student teaching. Addresses the application of teaching strategies, social studies curriculum, and classroom management. Offered concurrently with Secondary School Student Teaching, SEC ED 4990. Not available for graduate credit.

4013 United States History for the Secondary Classroom (3)

Same as HIST 4013. Prerequisites: TCH ED 3310 or consent of the instructor. This course is required for Social Studies Certification. 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. Cannot be counted towards the minimum 39-hour history major requirement, but can be counted towards the 45-hour maximum for Social Studies Certification. Not available for graduate credit.

4014 World History for the Secondary Classroom (3)

Same as HIST 4014. Prerequisite: TCH ED 3310 or consent of instructor. This course is required for Social Studies Certification. 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. Cannot be counted towards the minimum 39-hour history major requirement, but can be counted towards the 45-hour maximum and for Social Studies Certification. Not available for graduate credit.

4090 American Government for the Secondary Classroom (3)

Prerequisites: POL SCI 4090/SEC ED 4090 must be taken concurrently with HIST/SEC ED 4011 except with special consent of the School Studies Coordinator. (Same as POL SCI 4090) Adapts the themes and subject matter of American government to the secondary classroom and trains teachers in techniques particularly designed to maximize the use of primary sources, foster critical inquiry, and encourage knowledge of subject matter. Particular emphasis will be placed on defining the broad and connecting methods of inquiry for use in an interactive classroom. Can be counted towards the political Science major requirement, but not the American Politics subgroup. Counts towards Social Studies certification. Not available for graduate credit.

4273 Curriculum and Methods of Teaching Art (3)

Prerequisites: SEC ED 3328 and completion of, or concurrent enrollment in TCH ED 3310, 3312, 3313, 3386. Same as ART ED 4273. A study of the scope and sequence of art education in the school curriculum with emphasis on the preparation, selection, organization and application of materials and methods of instruction and assessment. Attention is also given to learning the research tools of the scholar in the field of art education. Not available for graduate credit.

4320 Classroom Management (3)

Same as SPEC ED 4320, ECH ED 4320, ELE ED 4320. Prerequisites: Level I and II courses or consent of instructor. Understanding classroom management as the development of engaging instruction that establishes healthy and culturally appropriate teacher-student relationships, builds successful classroom community and enhances student learning. Participants develop a culturally relevant classroom management plan that includes rules, procedures, expected behaviors and uses problem solving strategies to resolve behavior problems. Emphasis is on the teacher developing the social competence of PreK-12 students within culturally diverse classrooms and engaging families in supportive interactions.

4589 Curriculum and Methods of Teaching Foreign Language (3)

Same as FLL 4589. Prerequisites: TCH ED 3310 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.

4590 Foreign Language Teaching Seminar (2)

Same as FLL 4590. Prerequisite: Concurrent enrollment in SEC ED 4990 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 4589, Curriculum and Methods, with an emphasis on specific practical skills. To be taken concurrently with SEC ED 4990, Student Teaching.

4646 The Curriculum and Methods of Teaching Mathematics (3)

Prerequisites: TCH ED 3310 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. Not available for graduate credit.

4648 Mathematics Teaching Seminar (2)

Prerequisites: Concurrent enrollment in SEC ED 4990. 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 4990. Not available for graduate credit.

4880 Writing for Teachers (3)

Same as ENGL 4880. Prerequisite: ENGL 3100 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.

4885 The Curriculum and Methods of Teaching English (3)

Same as ENGL 4885. Prerequisites: TCH ED 3310 and a near major in the subject area. 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. 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 and concurrently with Secondary Education Professional Internship, Sec. Ed 4989. This course must be completed in residence. Not available for graduate credit.

4886 The Curriculum and Methods of Teaching Speech and Theatre (3)

Prerequisites: TCH ED 3310 or TCH ED 5310; students must be within three hours of completing a major in either Communication or Theatre, with 15-18 hours completed in the other subject area. Same as TH DAN 4886. A study in the scope and sequence of the Speech and Theatre courses in the school curriculum with emphasis on the selection and organization of materials and methods of instruction and evaluation. The course prepares students for reflective teaching by relating course readings to field experience and theory to practice. To be taken prior to student teaching and concurrently with SEC ED 4989; Secondary Professional Internship. This course must be completed in residence. Not available for graduate credit.

4888 English Teaching Seminar (2)

Same as ENGL 4888. Prerequisites: ENGL 4885/SEC ED 4885, Curriculum & Methods of Teaching English. 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 Student Teaching, SEC ED 4990. Not available for graduate credit.

4985 Curriculum and Methods of Teaching Life Sciences (4)

Same as BIOL 4985. Prerequisites: TCH ED 3310 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.

4986 Laboratory in Teaching Life Sciences (2)

Same as BIOL 4986. Prerequisite: TCH ED 3310. Discussion, development, utilization, and evaluation of equipment, materials, and techniques applicable to instruction in the life sciences. Must be taken concurrently with BIOL 4985/SEC ED 4985.

4989 Secondary Education Professional Internship (3)

Prerequisites: Level I and Level II requirements. This course is an intensive professional development experience (9 hours per week for 14 weeks) working in a secondary school setting. Activities on site include assisting the classroom teaching in all areas of instruction, assessment, and classroom management. This course is to be taken during the semester immediately preceding student teaching. This course must be taken in conjunction with methods of instruction course in specific content area. Assignments from these allied courses are carried out in the Internship, and Internship experiences inform the activities and discussions in these courses. Not available for graduate credit.

4990 Secondary School Student Teaching (12)

Prerequisites: Completion of Level II courses, the appropriate curriculum and methods course in the teaching field, and admission to student teaching. Clinical teaching experience in secondary school classrooms under university and school supervision. Not available for graduate credit.

4993 Student Teaching in Music, K-6 (6)

Prerequisites: Level I and Level II Education Courses. *MUSIC 3570/ELE ED 3570, *MUSIC 3670/SEC ED 3670, MUSIC 2180. *MUSIC 3680/SEC ED 3680 *MUSIC 3700(SEC ED 3700) (Instrumental emphasis majors); MUSIC 3290, *MUSIC 3690/SEC ED 3690, *MUSIC 3710/SEC ED 3710 (Choral/Vocal emphasis majors); and admission to student teaching. Must be taken "in block" with SEC ED 3294 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. *Courses must be taken in residence. Not available for graduate credit

4994 Student Teaching in Music Education, 7-12 (6)

Prerequisite: SEC ED 4993. Must be taken "in block" with SEC ED 4993 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 4993. Required of all majors in music education. *Courses must be taken in residence. Not available for graduate credit.

4996 Student Teaching in Elementary Art (6)

Prerequisites: SEC ED 4273, 45 hours Studio Art, 15 hours Art History and admission to student teaching. Intensive clinical teaching experience under university and school supervision, with seminar included. Must be taken in block with SEC ED 4997. Not available for graduate credit.

4997 Student Teaching in Secondary Art (6)

Prerequisites: SEC ED 4273, 45 hours Studio Art, 15 hours Art History, and admission to student teaching. Clinical teaching experience under university and school supervision in middle/junior high and/or high school, with seminar included. Must be taken in block with SEC ED 4996. Not available for graduate credit.

4999 Biology Teaching Seminar (3)

Same as BIOL 4999. Prerequisites: SEC ED 4985 and SEC ED 4986. 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 4990. Not available for graduate credit.

5000 Teacher Practicum Research (1-3)

Prerequisites: Admission into Student Teaching. Students conduct research on their own teaching in order to modify their instruction, curriculum and assessment practices.

Concurrent enrollment in SEC ED 4990, Secondary Student Teaching.

5012 Social Studies Teaching Advanced Seminar (2)

Prerequisites: HIST 4011/SEC ED 4011. An advanced seminar in the analysis and synthesis of current research and best practice of social studies curricula, educational philosophy, teaching strategies, and instructional technology in the classroom setting. To be taken concurrently with SEC ED 4990, Secondary Student Teaching.

5374 Foreign Language Teaching Advanced Seminar (2)

Prerequisites: SEC ED 4589 or FGN LANG 4589. An advanced seminar in the analysis and synthesis of current research and best practice of foreign language curricula, educational philosophy, teaching strategies, and instructional technology in the classroom setting. To be taken concurrently with SEC ED 4990, Secondary Student Teaching.

5648 Mathematics Teaching Advanced Seminar (2)

Prerequisites: SEC ED 4646. An advanced seminar in the analysis and synthesis of current research and best practice of mathematics curricula, educational philosophy, teaching strategies, and instructional technology in the classroom setting. To be taken concurrently with SEC ED 4990, Secondary Student Teaching.

5837 Physical Science Teaching Advanced Seminar (2)

Prerequisites: SEC ED 3240 or CHEM/PHYSICS 4802. An advanced seminar in the analysis and synthesis of current research and best practice of physical science curricula, educational philosophy, teaching strategies, and instructional technology in the classroom setting. To be taken concurrently with SEC ED 4990, Secondary Student Teaching.

5888 English Teaching Advanced Seminar (2)

Prerequisites: ENGL 4885/SEC ED 4885. An advanced seminar in the analysis of current research and best practice of English curricula, educational philosophy, teaching strategies, and instructional technology in the classroom setting. To be taken concurrently with SEC ED 4990, Secondary Student Teaching.

5999 Biology Teaching Advanced Seminar (3)

Prerequisites: SEC ED 4985 and SEC ED 4989. An advanced seminar in the analysis and synthesis of current research and best practice of science curricula, educational philosophy, teaching strategies, and instructional technology in the classroom setting. To be taken concurrently with SEC ED 4990, Secondary Student Teaching.

6387 Literacy Acquisition and Learning for Urban Students (3)

Prerequisites: Graduate standing. Designed to extend teacher understanding of adolescent's literacy acquisition, development, and learning through the secondary grades. Emphasis is on development of a teaching philosophy and

skills which include maintaining effective literacy learning environments in urban classrooms, fostering culturally responsive classroom communities, understanding social and environmental issues that affect the literacy learning of urban learners, using effective methods and materials to develop engaged and literate students, and fostering adolescent's participation in literacy activities.

6404 Seminar (1-10)

6415 The Secondary School Curriculum (3)

Prerequisites: Graduate standing. Learn foundations of curriculum development. Analyze district, school and content area curriculum according to national and state standards, educational philosophies, and theories of human development and learning. Identify and evaluate various area curriculum trends.

6416 Curriculum Construction for Secondary Schools (3)

Prerequisite: TCH ED 6030 or SEC ED 6415 or consent of instructor. Learn to revise and design district, school content area and integrated curriculum based on national and state standards for secondary schools. Compare and contrast curriculum design approaches while connecting curriculum and instruction to student performance.

6420 The Improvement of Secondary School Teaching (3)

Prerequisites: TCH ED 6030, or consent of instructor. Students will learn to improve their teaching effectiveness through the use of various models of instruction that are based on current learning theories and research in secondary teaching methodology in order to meet diverse student learning needs. Prior teaching experience is recommended.

6426 Secondary School Curriculum Reform in the Earth/Space Sciences (1-4)

Prerequisites: Graduate standing. Field-based experiences in improving the district-level secondary school science program, with special attention to the earth/space sciences. Emphasis is given to planning and implementing standards-based inquiry on selected science topics that include connections to other curricular areas. The course is organized into 4 non-lapping modules. Credit hours are determined based on number of modules completed. To reflect the number of modules selected by the student, this course may be repeated for a maximum of 4 credit hours.

6428 Secondary School Curriculum Reform in the Life Sciences (1-4)

Prerequisites: Graduate standing. Field-based experiences in improving the district-level secondary school science program, with special attention to the life sciences. Emphasis is given to planning and implementing standards-based inquiry on selected science topics that include connections to other curricular areas. The course is organized into 4 non-overlapping modules. Credit hours are determined based on number of modules completed. To

reflect the number of modules selected by the student, this course may be repeated for a maximum of 4 credit hours.

6482 Problems and Research in Teaching Secondary Reading (3)

This is the capstone course for the Master of Secondary Education-Emphasis in Reading. To be taken in the last 9 hours of Masters Program. The three foci for this course are (1) systematic study of research as it focuses on the problems of teaching reading in the secondary school, (2) innovations in the field, and (3) action research. Each student designs and completes an action research project related to literacy.

6484 Secondary School Curriculum Reform in the Health Sciences (1-4)

Prerequisites: Graduate standing. Field-based experiences in improving the district-level secondary school science program, with special attention to the health sciences. Emphasis is given to planning and implementing standards-based inquiry on selected science topics that include connections to other curricular areas. The course is organized into 4 non-overlapping modules. Credit hours are determined based on number of modules completed. To reflect the number of modules selected by the student, this course may be repeated for a maximum of 4 credit hours.

6485 Secondary School Curriculum Reform in the Physical Sciences (1-4)

Prerequisites: Graduate standing. Field-based experiences in improving the district-level secondary school science program, with special attention to the physical sciences. Emphasis is given to planning and implementing standards-based inquiry on selected science topics that include connections to other curricular areas. The course is organized into 4 non-overlapping modules. Credit hours are determined based on number of modules completed. To reflect the number of modules selected by the student, this course may be repeated for a maximum of 4 credit hours.

6490 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.

6493 Reading Specialist Practicum I (3)

Prerequisites: SEC ED 6684, SEC ED 6686, and ED REM 6707, 6709, or 6716. Application of reading theory and research in a supervised setting. Emphasis is on assessing and analyzing the literacy strengths, needs, and interests of a range of readers with the goal of improving their reading abilities and attitudes. Focus is on establishing reading support for adolescents with the assistance of formal and informal assessments, reading professionals, educators, and adolescents' families.

6494 Reading Specialist Practicum II (3)

Prerequisites: SEC ED 6493. Application of reading theory and research in a supervised setting. Emphasis is on using appropriate materials and providing effective instructional techniques to address adolescent's assessed literacy strengths, needs, and interests with the goal of improving their reading abilities and attitudes. Focus is on sustaining reading, support for adolescents with the assistance of other reading professionals, educators, and adolescents' families.

6497 Problems (1-10)

6686 Analysis and Correction of Reading Disabilities (3)

Prerequisites: ED REM 6707, 6709, or 6716 and at least one graduate level literacy course. Designed to develop teacher understanding of the roles and responsibilities of the teacher of reading, Reading Specialist, and Literacy Coach. Emphasis is on the nature of specific reading difficulties, distinguishing reading difficulty/disability from language difference, becoming familiar with a range of tools for assessing reading skills and strategies, and developing a critical orientation for evaluating the purpose and utility of various literacy assessment tools. Teachers will use informal and formal literacy assessment tools to guide instructional planning for adolescents in the UMSL Reading Center

Special Education (SPEC ED)

3332 Educating Learners with Developmental Disabilities, Physical or other Health Impairments (3)

Prerequisites: TCH ED 2211, SPEC ED 3313, and SPEC ED 3345. Methods and techniques for educating learners with developmental disabilities, physical or other health impairments. Required of all who are preparing for certification in special education with endorsement in Developmental Disabilities or Cross Categorical.

3345 Cross Categorical Special Education I (3)

Prerequisites: TCH ED 3313 or equivalent or consent of instructor. Study of characteristics of students with cross categorical disabilities and other pertinent issues including inclusion, assessment, and evaluation practices.

3346 Literacy Assessment & Reading for Students with Special Needs (3)

Prerequisites: Level I and Level II. Examination of current research and issues specific to educating students with disabilities in the area of reading. Topics will include historical and contemporary perspectives on reading instruction and assessment, and implementation of evidence-based practice to improve phonological awareness, decoding, word recognition, fluency, comprehension, and vocabulary. Written language will also be addressed as it pertains to reading instruction.

3347 Teaching Learners with Learning Disabilities (3)

Prerequisites: SPEC ED 3313 and SPEC ED 3345.

Application of instructional techniques for learners with learning disabilities, including assessment for instruction, interdisciplinary teamwork, parental involvement, individualized education plans, and classroom techniques. Required for certification in special education of learners with learning disabilities.

3349 Cross Categorical Special Education II (3)

Prerequisites: All Level II courses and SPEC ED 3345.

Study of research-based instructional and behavior management methods for use with students with cross-categorical disabilities. Students seeking special education teacher certification must take this during the same semester as SPEC ED 4989, Special Education Professional Internship.

3350 Teaching Learners with Emotional/Behavioral Disorders (3)

Prerequisites: SPEC ED 3313 and SPEC ED 3345. A course designed to instruct students in the management and instructional strategies necessary to the education of learners with emotional/behavioral disorders.

4301 Special Education Orientation (2)

Prerequisites: Admission to Special Education Transition Program or consent of instructor. This course examines characteristics of students in cross-categorical placements. Examination of special education philosophy, historical and legal issues, special education process, and personal traits.

4302 Special Education Process and Performance Assessment (2)

Prerequisite: SPEC ED 4301 or consent of instructor. This course examines the special education process from pre-referral to placement, and the roles of educators, parents and auxiliary personnel. Examines informal and formal assessment procedures and instruments for screening, diagnosis, placement and performance of school-aged individuals.

4315 Speech and Language Problems of Exceptional Children (3)

Prerequisites: ED FND 1111, SPEC ED 3313, and admission to the College 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.

4320 Classroom Management (3)

Prerequisites: Levels I and II courses or consent of instructor. Same as ECH ED 4320, ELE ED 4320, SEC ED 4320. Understanding classroom management as the development of engaging instruction that establishes healthy and culturally appropriate teacher-student relationships, builds successful classroom community and enhances student learning. Participants develop a culturally relevant

classroom management plan that includes rules, procedures, expected behaviors and uses problem solving strategies to resolve behavior problems. Emphasis is on the teacher developing the social competence of PreK-12 students within culturally diverse classrooms and engaging families in supportive interactions.

4325 Behavior Management (3)

Prerequisites: Level I and Level II classes. Study of classroom management and applied behavior analysis strategies. Focus on teacher as decision maker in the design, implementation, and evaluation of individual and group management programs with emphasis on functional assessment and positive behavior support.

4342 Transition Issues and Planning (3)

Prerequisite: TCH ED 3313, or equivalent, or consent of instructor. This course provides information to teachers and human service professionals who work closely with adolescents and young adults with disabilities. Emphasis is placed on understanding and planning for the transition from school to adult life for students with disabilities. Transition outcomes include employment, residential options, and other developmental concerns. Topics include self-determination, career education and planning, interagency collaboration, vocational and residential issues and resources, and family support and involvement.

4382 An Introduction to Gifted Children (3)

Prerequisite: SPEC ED 3313. 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.

4390 Student Teaching in Special Education III (6)

Prerequisites: SPEC ED 3291 or experience in special education classrooms in schools equivalent and admission to student teaching. Clinical teaching under university and school supervision with seminar included. For students who wish an additional student teaching experience.

4989 Special Education Professional Internship (3)

Prerequisites: Level I & Level II requirements and ELE ED 4989. This course is an intensive professional development experience (9 hours per week for 14 weeks) working in a school setting with students with disabilities. Activities on site include assisting the classroom teacher in all areas of instruction, assessment, and classroom management. This course is to be taken in conjunction with SPEC ED 3349. Assignments from this course are carried out in the Internship, and Internship experiences inform the activities and discussions in this course. Not available for graduate credit.

4990 Special Education Student Teaching I (6)

Prerequisites: Level III classes and admission to student teaching. Clinical teaching experiences in elementary level special education program under university and school

supervision. Required for all special education majors; must be taken during the same semester as SPEC ED 4991. Not available for graduate credit.

4991 Special Education Student Teaching II (6)

Prerequisites: Completion of Level III courses. Clinical teaching experiences in secondary school classrooms under university and school supervision. Must be taken the same semester as SPEC ED 4990. Required for all majors in special education. Not for graduate credit.

5303 Instructional Practices (3)

Prerequisite: SPEC ED 4301 or consent of instructor. This course provides an in-depth examination of methods and techniques for use in the education of students in cross-categorical placements.

5304 Structure of Teaching and Communication (2)

Prerequisite: SPEC ED 5303 or consent of instructor. This course provides a study of the problems associated with speech and language development and the techniques employed by classroom teachers. Examination of transition requirements and strategies for students in cross-categorical placements in order to utilize communication skills for effective collaboration with students, parents, colleagues, and community agency representatives.

5305 Planning and Managing the Teaching and Learning Environment (3)

Prerequisite: SPEC ED 5303 or consent of instructor. This course provides an in-depth exploration of various behavior management techniques that are particularly applicable for students in cross-categorical placements. Projects on functional behavioral assessment and behavior support plans will be conducted.

5306 Research Into Practice (4)

Prerequisite: SPEC ED 5305 or consent of instructor. This course provides an examination of current trends, issues and research in the education of students in cross-categorical placements with particular emphasis on instructional and management issues, effective inclusive education practices, and behaviorist and constructivist strategies for delivering instructional content and reflective practices.

5307 The Reflective Practitioner (4)

Prerequisite: SPEC ED 5306 or consent of instructor. This course provides reflection on all competency areas associated with the education of students in cross-categorical placements. Self-assessment on abilities and self-reflection on professional development. Selected problems on student-learner exceptionalities. A selective portfolio for K-12 Mild/Moderate Cross-Categorical endorsement is required.

6320 Advanced Studies in Classroom Management (3)

An advanced course designed for practicing educators examining current research, theory, and practice of classroom and behavior management. Emphasis will be

given to the analysis of research and development of practical skills in the areas of conflict resolution, social problem-solving, classroom and school community building, and the promotion of social competence among children and youth.

6325 Advanced Behavior Management (3)

Prerequisites: Graduate standing. Advanced study of classroom management and applied behavior analysis strategies. Focus on teacher as decision maker in the design, implementation, and evaluation of individual and group management programs with emphasis on functional assessment and positive behavior support.

6345 Characteristics of Cross Categorical Disabilities (3)

Prerequisites: TCH ED 3313 or an equivalent course in psychology of the exceptional child. Advanced study of characteristics of students with cross categorical disabilities and other pertinent issues including inclusion, assessment, and evaluation practices.

6349 Education of Learners with Cross Categorical Disabilities (3)

Prerequisites: SPEC ED 6345. Advanced study of research-based instructional and behavior management methods for use with students with cross-categorical disabilities.

6372 Screening and Diagnosis of the Developmental Delays: Birth to 5 Years (3)

Prerequisites: ED REM 3721. This course addresses the content, techniques, and special problems related to the assessment of children at risk for developmental delays in the birth to five year age range. Students gain experience in construction, administration, and interpretation of assessment tools used with young children. Required for certification in severe handicapped and early childhood-special education.

6410 Families and Schools in Inclusive Communities (3)

Prerequisite: Graduate standing. This course focuses on how parents and other family members, teachers, administrators (and other education professionals) can collaboratively increase the capacity of families and schools to support inclusive education and community participation for all students, especially those with significant disabilities. This course draws upon the multiple perspectives of families, schools and the general culture to explore a shared context of family and disability history, educational issues, and personal perspectives.

6411 Law, Policy and Bureaucracy in Education and Disability Studies (3)

Prerequisite: Graduate Standing. This course focuses on the evolution and current status of law and educational policy affecting individuals with disabilities and their families. The course will provide a basic review of governmental structure and educational policy analysis in the United States, and explore statutes, policies, and judicial decisions in areas of

special education, adult services, family supports, and civil rights.

6412 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.

6415 The Law and Special Education (3)

Prerequisites: Graduate standing. Special education is governed by an elaborate and extensive body of statutes, regulations, and court decisions. This course will focus on the requirements, history, and evolution of laws impacting special education services; current legal requirements in providing a free appropriate public education (FAPE) to students with disabilities and the procedures to obtain legal information in law libraries and on the Internet; and how to conduct legal research using a variety of sources.

6416 Current Research in Psychology of Learners with Disabilities (3)

Prerequisite: Consent of instructor/adviser. Study of current trends, issues, and research in special education. Areas of investigation focus on major developments in disabilities, situations related to programming for projected needs, and considerations and utilization techniques with learners with disabilities. Students should have experience or an undergraduate background in the education of learners with disabilities prior to enrolling in this course.

6430 Characteristics of Developmental Disabilities (3)

Prerequisite: TCH ED 3313 or equivalent course in psychology of the exceptional child; graduate standing. An advanced study of the theoretical and methodological problems related to developmental disabilities. Particular emphasis on the application of current research findings to the problems confronting learners with developmental disabilities.

6431 Education of Learners with Developmental Disabilities (3)

Prerequisite: SPEC ED 6430. A systematic study of current educational practices and procedures for the education of learners with developmental disabilities. Methods and materials are stressed.

6435 Schoolwide Systems of Positive Behavior Support (3)

Prerequisites: Graduate Standing. This course will focus on the research foundations and recent developments in the creation and maintenance of primary (school-wide), secondary (classroom and targeted group), and tertiary (individual) systems of support to increase the capacity of schools, communities, and families to improve lifestyle results (personal, health, social, family, work, recreation) for all children and youth.

6436 Individual Systems of Positive Behavior Support (3)

Prerequisites: Graduate standing. Focus on the design of comprehensive, multicomponent behavior support plans for

individuals with disabilities who engage in challenging behaviors. Emphasis on simultaneously teaching social behavior and building supportive environments to support the use of targeted social skills. Taught from a noncategorical perspective.

6440 Disability, Schooling and Culture (3)

Prerequisites: TCH ED 3313 or equivalent. An advanced course that will examine foundational issues in social and educational policy for students with disabilities. The course explores the historical, philosophical, sociological and economic dimensions of the recent emphasis on inclusive and community-based support systems for individuals with disabilities and their families. The course will review recent research and experience in the U.S. (primarily) concerning the evolving roles and relationships of families, teachers, administrators, and students with and without disabilities in increasingly diverse schools and communities.

6441 Instructional Methods for Exceptional Students (3)

Prerequisites: Graduate standing. Study of effective instructional models as applied to academic and functional skills. Examination of instructional materials, media, and technology applied to instruction of exceptional students.

6443 Characteristics of Learning Disabilities (3)

Prerequisite: TCH ED 3313 or an equivalent course in psychology of exceptional children; graduate standing. Advanced study of the theoretical and methodological problems related to learning disabilities. Particular emphasis on the application of current research findings to the problems confronting learners with disabilities.

6444 Education of Learners with Learning Disabilities (3)

Prerequisite: SPEC ED 6443. Systematic study of current educational practices and procedures for the education of learners with learning disabilities. Methods and materials are stressed.

6446 Reading Instruction and Intervention in Special Education (3)

This course examines current research and issues specific to educating students with disabilities in the area of reading. Topics will include historical and contemporary perspectives on reading instruction and assessment, and implementation of evidence-based practice to improve phonological awareness, decoding, word recognition, fluency, comprehension, and vocabulary. Written language will also be addressed as it pertains to reading instruction.

6450 Characteristics of Emotional/Behavioral Disorders (3)

Prerequisite: TCH ED 3313 or an equivalent course in psychology of exceptional children; graduate standing. Advanced study of the problems and characteristics of learners with emotional/behavioral disorders. Particular emphasis on the application of current research findings to

problems confronting learners with emotional/behavioral disorders.

6452 Education of Students with Emotional/Behavioral Disabilities (3)

Prerequisite: SPEC ED 6450 or consent of instructor. This course provides advanced students with the research, theory, and practices of providing support to students with disabilities and other students experiencing emotional and behavioral problems. This course focuses on the development of professional skills necessary to assist and teach students with difficult behaviors. Additionally, this course helps classroom teachers learn how to work collaboratively with parents and other professionals in order to construct classroom environments that are supportive and productive for all students.

6462 Introduction to Early Childhood Special Education (3)

Prerequisite: SPEC ED 3313 or equivalent. A study of issues and concepts central to special Education of young children with disabilities, and at-risk for disabilities, and their families. Focus on program models, screening and assessment procedures, and curriculum concepts. An ecological perspective is emphasized.

6463 Curriculum, Methods, and Materials for Early Childhood Special Education (3)

Prerequisites: SPEC ED 6462. In-depth study of integrated assessment-based curriculum development for learners in early childhood special education. Emphasis on individualized educational planning and implementation for learners and their families.

6492 Practicum in Special Education (3-6)

Prerequisite: Two courses in area of concentration (developmental disabilities, early childhood special education, emotional/behavioral disorders, or learning disabilities). Supervised experience in the education of learners with disabilities in a school or other appropriate setting.

6497 Problems (1-10)

Prerequisite: SPEC ED 3313 or equivalent and consent of instructor. Investigation of a selected problem related to the education of learners with disabilities. To be conducted under the direction of a graduate faculty member.

6510 History of Disability and Special Education (3)

Prerequisites: Permission of Instructor. Provides a historical context for approaching contemporary issues in the education and support of people with disabilities and their families. Requires students to become familiar with methods of retrieval and analysis of historical material.

Teacher Education (TCH ED)

2210 Introduction to Teaching (3)

Explores the multiple roles and functions of professional teaching including: communication, leadership, management skills, use of technology, and identification of needs of diverse populations. Portfolio preparation will be introduced. A minimum of 15 field experience hours required.

2211 Introduction to American Schools (3)

One of three introductory, prerequisite courses to the Teacher Education Program. An examination of selected concepts and principles underlying American public education. A minimum of 4 field experience hours required.

2212 Introduction to Learners and Learning (3)

Prerequisites: PSYCH 1003. Same as ED PSY 2212. Foundational study of the development of infants, children and adolescents focusing on the role of appropriate educational environments in fostering positive physical, cognitive, social and moral outcomes. Reading relevant research will be combined with experiences in the field and technology-based assignments to investigate both biological and sociocultural forces that shape the development process. A minimum of 10 field experience hours required.

2311 Foundations in Urban Education and Social Justice (3)

Prerequisites: enrollment in the Minor in Urban Education or permission of the instructor. An introductory course that examines the concepts and principles underlying American public education with specific attention to urban school systems. Issues of equity and social justice in public education are analyzed from multiple perspectives.

3210 General Linguistics in Teaching English to Speakers of Other Languages (TESOL) (3)

Prerequisites: Completion of Level I. An introduction to the historical, legal and pedagogical frameworks relating to Teaching English to Speakers of Other Languages (TESOL), and bilingualism. Students explore principles of language systems including English and the function of language in social and academic settings.

3211 Basic Principles of Second and Foreign Language Acquisition (3)

Prerequisites: TCH ED 3210. Covers the principles of language acquisition and the factors which influence learning. Students investigate first and second language acquisition processes including socio-cultural and cognitive factors in relation to second language acquisition (SLA). The course analyzes phonology, morphology, syntax, semantics, and discourse, within a communicative framework, which directly relates to instructional strategies.

3212 Sociolinguistics and Communication in the Classroom (3)

Prerequisites: TCH ED 3210. Students explore the impact of culture and society on verbal and non-verbal communication, learning styles, and second language acquisition. The course introduces concepts relating to the acculturation process, cross-cultural and intra-cultural communication. Students develop strategies to enhance home, school and community relations and impact of culture on perceptions, communication, behaviors, and learning.

3213 Performance-based Assessment for TESOL (3)

Prerequisites: TCH ED 3210. By exploring the role of assessment in culturally and linguistically diverse classrooms, this course provides an overview of identifying and placing students at the district and school level. Formal and informal models of assessment are examined as students reflect on the administration and interpretation of equitable measurement strategies and how assessment can reinforce instruction.

3214 Material Development and Methods for TESOL (3)

Prerequisites: TCH ED 3210, 3211, 3212, 3213 and 4391. Students integrate knowledge of second language acquisition research in instructional methodologies in this course. Students will also incorporate theories of linguistics, assessment models, and instructional technology into their material development to meet the needs of diverse English language learners.

3215 Field Experiences in TESOL (3)

Prerequisites: TCH ED 3210, TCH ED 3212 and TCH ED 3214 or currently taking TCH ED 3214. Students observe and reflect on actual classroom practices as well as complete a student's needs analysis and placement tests. The students implement the strategies for advocating and collaborating on behalf of students from diverse language backgrounds. This is a supervised field experience.

3310 Introduction to Instructional Methods (3)

Prerequisites: TCH ED 2210, 2211, 2212, or equivalent and admission to Teacher Education Program. Beginning methods course for K-12 teachers. Skill development in planning instruction, selecting content, use of various teaching methods, designing assessment, developing classroom climate and management strategies. Participation in professional development through observing students in a school setting, microteaching, using educational technology, and portfolio development. A minimum of 12 field experience hours required.

3312 The Psychology of Teaching and Learning (3)

Prerequisites: TCH ED 2210, TCH ED 2211, TCH ED 2212 or equivalents and admission to Teacher Education program. Same as ED PSY 3312. 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.

3313 Psychology of the Exceptional Child (3)

Prerequisites: Level I or equivalent. Same as SPEC ED 3313. Introductory overview of the field of special education including historical developments, characteristics of special populations, and compliance with state and federal regulations.

3315 Literacy Learning and Instruction (3)

Prerequisites: Admission to the Teacher Education program. May take concurrently with TCH ED 3312 and TCH ED 3313 or equivalents; may not be taken before TCH ED 3312 and TCH ED 3313 or equivalents. Methods, materials, frameworks, and technology for the effective teaching of literacy to young children, children with special needs, and children in elementary education settings. Emphasis on role of language experience, phonics, semantics, syntactics, pragmatics, schema theory, and metacognition in literacy development. Observation, assessing children's literacy interests and development, and teaching lessons in a school classroom setting are required. This course may be applied toward a Literacy Minor.

3316 The Professional Portfolio (1)

Prerequisites: Junior standing or consent of instructor. Students learn the knowledge and skills to develop an electronic teaching portfolio, writing reflective rationales for standards and choosing appropriate artifacts and using technology tools for successful presentation.

4320 Educational Issues in the Cultural Construction of Diversity (3)

Prerequisites: None. In this course students will explore issues of human diversity and how these issues impact a wide range of educational settings. Students will be involved in a continued process of self-assessment regarding how each of us deals with others not like ourselves. Human similarity and diversity will initially be examined using anthropological and biological research. Socio-cultural constructions of this diversity will then be investigated. Diversity will be explored on the individual, local, national and global levels. Students will become familiar with the science of diversity and will investigate how this diversity plays out in a variety of socio-cultural contexts. This class will provide students with a knowledge base about human diversity and will promote multicultural competencies for educators.

4391 Teaching Reading in Secondary School Content Areas (3)

Prerequisite: TCH ED 3310 and 3312, or consent of instructor or equivalent. Methods and materials for improving reading and study strategies in content area classes in upper grades.

4988 Teaching and Learning in Urban Schools (3)

Prerequisites: Enrollment in the Minor in Urban Education or permission of the instructor. The capstone course for the Minor in Urban Education. Students design and implement a classroom-based, action research project in an urban school that integrates differentiated instruction, culturally relevant and sensitive teaching strategies, assessing children's learning to meet individual needs, and implementing inquiry-based projects.

5310 Instructional Design (3)

Prerequisites: Graduate standing, TCH ED 5311, participation in an initial teacher preparation program, and consent of instructor. Skill development in planning teaching units, instructing lessons, selecting content, using various teaching methods, designing assessment, developing classroom climate and in management strategies. Professional skills are developed through reflecting on one's own practice, using educational technology, and developing a professional portfolio.

5311 Foundations of Education (4)

Prerequisites: Acceptance into the post-baccalaureate teacher education certification program. Investigation into the history, philosophies, and purposes of public schools and the multiple roles played by professional educators. Emphasis will be on the history of public education, the role of the teacher as change agent, the influence of technology, and the impact of diversity on American classrooms.

5312 Differentiated Instruction (4)

Prerequisites: Graduate standing. This course explores Differentiated Instruction, (DI) as an approach to meeting the instructional needs of diverse and mixed ability students in the classroom. DI can be used to enhance literacy developments of adolescent learners in functional literacy, content literacy, technological literacy and creative/innovative literacy. Ten hours of field experience are required.

5850 Topics in the Teaching of Writing (3-6)

Same as ENGL 4850. Prerequisite: ENGL 3100 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. Maybe repeated once for credit if topics differ. Counts toward Certificate in Writing and Graduate Certificate in the Teaching of Writing.

5989 New Teaching Learning Community I (1)

Prerequisites: SEC ED 4990 and admission to the Graduate Certificate in Secondary School Teaching. The first of two courses forming a capstone for the Graduate Certificate in Secondary School Teaching. Online discussion with school-based mentors will be supplemented with readings and small group sessions that support the development of first and second-year teachers through such topics as classroom

management, social justice, diversity, and analysis of teacher work samples.

5990 New Teacher Learning Community II (2)

Prerequisites: TCH ED 5989. This course continues to assist new teachers in developing their teaching skills and advancing their professional transition into teaching. The course consists of online discussion, reading, and small group sessions with school-based mentors.

6010 Examining History, Community and Social Justice in Education (3)

Addresses the issues of equity and social justice from the context of personal and educational history. Students will develop a cultural understanding of their own previous school, community and family experiences and generalize those findings to their current work as educators. They will develop an understanding of the historical foundations of American education and the role of the teacher to be a catalyst for change. Curriculum, instruction and learning will be examined through a variety of lenses including race, class, gender, ability, sexual orientation and religion to become culturally responsive teachers.

6020 Teacher Action, Advocacy and Leadership (3)

Investigates the relationships among students, general and special education teachers, counselors, principals, parents, and other support and specialist personnel typically present in schools in Missouri and the changing roles of all these individuals as a consequence of general and special education reform initiatives. Develop systemic action plans and become advocates and leaders within the school and larger community for children, families, and the profession. Assists teachers to analyze and improve their management, planning and record keeping systems and professional development planning.

6030 Instruction, Learning and Assessment (3)

Prerequisites: Admission into Graduate School. Same as ED PSY 6030. Uses learning as the basis for the design of classroom instruction. By applying learning theories, teachers can improve their own unit development, lessons plans, assessment strategies, and the use of technology for effective teaching. Deals with the impact of cognitive educational research on the subject content and what is known about how people learn. Teachers will learn to critically evaluate and improve their own educational practices, design principled and appropriate assessments based on their instructional goals, and to assess their own professional development.

6210 Foundations of Teaching English to Speakers of Other Languages (TESOL) (3)

Prerequisites: Graduate Standing. This course is an introduction to the historical, legal and pedagogical frameworks relating to Teaching English to Speakers of Other Languages (TESOL) and bilingualism. Students explore current issues, trends and influential factors in

second language acquisition (SLA) instructional and assessment models.

6220 Principles of Second/Foreign Language Acquisition (3)

Prerequisites: TCH ED 6210. This course is a research-based study of language acquisition and the factors which influence learning. Students investigate first and second language acquisition processes including socio-cultural and cognitive factors, as well as linguistic research about second language acquisition (SLA). The course analyzes phonology, morphology, syntax, semantics and discourse, within a communicative framework, which directly relates to instructional strategies.

6230 Cross-Cultural Communication in the Classroom (3)

Prerequisites: TCH ED 6210. Students explore the impact of culture and society on verbal and non-verbal communication, learning styles, and second language acquisition. The course introduces concepts relating to the acculturation process, cross-cultural and intra-cultural communication. Within this theoretical context, students recognize their own socio-cultural identity and its impact on teaching models. Students develop strategies to enhance home, school and community relations.

6240 Assessment for Teaching English to Speakers of Other Languages (TESOL) (3)

Prerequisites: TCH ED 6210 & TCH ED 6220 are recommended. By exploring the role of assessment in culturally and linguistically diverse classrooms, this course provides an overview of identifying and placing students at the district and school level. Formal and informal models of assessment are examined as students reflect on the administration and interpretation of equitable measurement strategies and how assessment can inform instruction.

6250 Methods and Materials for Teaching English to Speakers of Other Languages (3)

Prerequisites: TCH ED 6220, 6230, and 6240, or Consent from Instructor. Students integrate knowledge of second language acquisition research in instructional methodologies, linguistics, assessment models, and awareness of socio-cultural dynamics, in order to design and critique a unit plan including materials and needed technology support.

6260 Practicum in Teaching English to Speakers of Other Languages (3)

Prerequisites: TCH ED 6220, 6230, 6240, and 6250 or concurrently taking TCH ED 6250. Students observe and reflect on actual classroom practices, complete a student's needs analysis and placement test, and implement a unit plan in the classroom with reflection. This is a supervised field experience.

6350 Gender, Language & Identity (3)

Prerequisites: Graduate level standing. Same as WGS 6450. An interdisciplinary look at the ways gendered and racial identities are developed and shaped through language and culture. Readings will address the complex, yet sometimes invisible, ways that identity, language and gender intersect, creating and assigning roles, responsibilities and possible selves to individuals and groups in a global world.

6440 Experiential Education (3)

Prerequisites: TCH ED 6010. This course addresses facets of experiential learning beginning with the theoretical background. Reflection will be examined as a key component of the experiential learning cycle and reflective questioning techniques developed and practiced. Adventure education, cultural journalism, apprenticeship education and related areas will be investigated as approaches to experiential learning. Students will develop an understanding of the relationship between experience and learning and develop techniques for using that relationship to enhance learning in their own teaching situation.

6880 Gateway Writing Project (3-6)

Same as ENGL 6880. 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 Graduate Certificate in the Teaching of Writing.

6890 Seminar in Professional Writing for Teachers (3)

Prerequisite: TCH ED./ENGL 6880, and near-completion of Graduate Certificate in the Teaching of Writing. Capstone seminar for the Graduate Certificate in the Teaching of Writing. Participants will pursue the dual role of writer/writing teacher by designing individual projects with one of these emphases: (1) research writing based on a classroom inquiry into the teaching of writing. (2) expository and creative writing based on an inquiry into the teacher's own evolution as a writer. Seminar meetings will include both face-to-face and on-line communication.

6910 Teacher Action Research Capstone (3)

Prerequisites: Completion of TCH ED/ED REM 6040 and all but the last 6 hours of M.Ed. program. This course applies the research knowledge, skills, and practice of experienced practitioners to a final research project that results from reflectively evaluating their own practice within educational systems and situated contexts. Educators will use both analytic and practice tools to research multiple factors that impact their own students learning. The final project will be displayed in a public forum as a capstone project for the M.Ed.

College of Fine Arts and Communication

General Information

The College of Fine Arts and Communication at the University of Missouri-St. Louis includes the Departments of Art and Art History, Communication, Music, and Theatre, Dance and Media Studies. The faculty and alumni of this College have distinguished themselves as scholars, visual artists, teachers, and performers. Students of the College pursue their activities in a variety of campus locations, including the Fine Arts Building, Lucas Hall, the Music Building and the General Services Building. The Touhill Performing Arts Center affords two world class venues for performances by individual university students and faculty, campus ensembles, and visiting artists. In addition, Gallery 210, Gallery FAB, and Gallery VISIO in the Millennium Student Center, offer space for the display of student and faculty artwork, as well as visiting exhibitions.

The College of Fine Arts and Communication is distinguished by its collaboration with the community. Six endowed professorships link the University to the Saint Louis Symphony, the Saint Louis Art Museum, Opera Theatre of Saint Louis, the Laumeier Sculpture Park, and other local cultural institutions. The Des Lee Fine Arts Education Collaborative connects the University and a variety of partner cultural institutions to eleven local school districts.

The College of Fine Arts and Communication consists of some 50 full-time faculty members in the following departments, each offering work in specific undergraduate degree programs: art and art history, communication, music and Theatre, Dance and Media Studies.

Graduate study degree programs, administered through the Graduate School, are also offered in the communication and music departments.

Requirements for Undergraduate Study

In addition to the university general education requirements, all majors in the College of Fine Arts and Communication must meet the following requirements:

To graduate, all majors in the college also must complete the following:

Requirements of their chosen baccalaureate degree (i.e., B.A., B.F.A., B.M., etc) in accordance with the policies of the College of Fine Arts and Communication.

Requirements of the department for their selected major or interdisciplinary program.

Cultural Diversity Requirement

To expand cultural awareness, all students are required to complete a course that emphasizes Asian, African, Middle Eastern, Latin American, Pacific aboriginal, Native

American, or a comparable culture. Courses that satisfy this requirement involve substantial material independent of the cultures' interactions with European cultures. If a course focuses on one facet of a culture, it must treat the topic within the context of the culture as a whole. A list of courses which fulfill the Cultural Diversity requirement may be found elsewhere in this bulletin.

Academic Policies

Grade Requirements

To graduate, all majors in the college must satisfy one of the following grade point options:

- Earn 120 hours with a C grade or better, which constitutes a complete degree program. Neither a grade of C- nor a satisfactory grade may be counted.
- Have a minimum UMSL Campus grade point average of 2.0 and have met all other grade point restrictions that are required for the degree program and the major.

Residency Requirements

Unless otherwise specified, a transfer student must complete 12 hours of graded work at UMSL at the 2000 level or above within the minimum number of hours required for each major.

Unless otherwise specified, a transfer student must complete at least six hours of graded work at UMSL at the 2000 level or above within the minimum number of hours required for each minor. Students should consult the minor department for specific residency and grade requirements.

Specific Baccalaureate Degree Requirements Course Requirements

After fulfilling the general education and specific major degree requirements, students are to take the remaining hours required to complete the bachelor's degree from courses (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, or interdisciplinary. Other areas or courses not listed require approval by the chair of the student's department.

Bachelor of Arts (B.A.)

All B.A. degree candidates must successfully complete a curriculum which includes a departmental major or an approved interdisciplinary field. A major must include at least 30 credit hours but no more than 45 hours. The College offers the B.A. degree in art history, communication, music and theatre.

Foreign Language Requirement

Candidates for the B.A. degree are required to complete 13 credit hours or the equivalent in proficiency in one foreign language. Foreign language guidelines are as follows:

Students entering with no high school language units must enroll in Language 1 or may enroll in the 2115 series. Students with the degree of proficiency equivalent to 13 hours of college-level work may obtain exemption by passing the department's placement exam. The specific dates for the exam are announced in the Schedule of Courses or may be obtained from the admissions office or the Department of Foreign Languages and Literatures. Native speakers of language other than English may meet the foreign language requirement by presenting a transcript from a university or secondary school of their native country to the Department of Foreign Languages and Literature. The department will certify native speakers of those languages which are taught at the university. Those who are proficient in other languages must submit certification of competence to the college. Language 2115 a, b, and c (Intensive) will satisfy the foreign language requirement. 2115 and co-requisites must be completed with a grade of C-or better, to satisfy the foreign language requirement. Students may not repeat, for credit an elementary course if they have already completed a higher-level course for which the elementary course, or its equivalent, is a prerequisite.

Applied Music and Studio Art

Students not majoring in music may count no more than eight hours in music-performing organizations (Music 1400, 1410, 1500, 1520, etc.) Students in the college majoring in music may count any number of hours of applied music (private lessons). Students not majoring in studio art may count any studio art course toward any degree in the college. This also includes transferred credit.

Bachelor of Music (B.M.)

The requirements are the same as for the B.A. degree with the addition of music education courses for music majors seeking state teacher certification. Although foreign language proficiency is not required, foreign language study is required for applied voice students.

Bachelor of Science (B.S.)

All majors must complete a minimum of 51 hours in Media Studies courses and at least 24 of these hours must be taken at UMSL. A minimum of 39 credit hours in Media Studies and a minimum of 12 credit hours in Theatre and Dance, totaling 51 credit hours, are required. At least 18 hours of coursework must be taken at the 2000 level or above at UMSL. There is no foreign language requirement, but foreign language proficiency is recommended.

Certificate Programs

A certificate program is offered in Photographic Studies and Arts Management. (see Certificate section of this Bulletin).

Evening Program

All the departments of the College of Fine Arts and Communication offer coursework in the evening or in other non-traditional modes (i.e. on-line and/or video). The Department of Communication offers sufficient coursework to complete its degree program in the evening. Consult the website of the department in which you are interested for details on degree requirements and 3-year schedule of planned course offerings.

Department Honors

Majors in the following department may pursue departmental honors.

Minors

A number of minors are available at UMSL. Some are offered by individual departments, while others, such as Classical Studies and Black Studies, are interdisciplinary in nature and involve a number of departments. The requirements for the various minors are listed in either the departmental or interdisciplinary sections of this *Bulletin*.

Department of Art and Art History

Faculty

Jeanne Morgan Zarucchi, Professor, Chairperson
Ph.D., Harvard University
E. Louis Lankford, Professor, Des Lee Foundation
Endowed Professor Art Education
Ph.D., Florida State University
Susan E. Cahán, Associate Professor, Des Lee Endowed
Professor of Contemporary Art
Ph.D., Graduate Center, City University of New York
Glen P. Gentile, Associate Professor, Aronson Endowed
Professor of Modern and Contemporary Art History,
Director of Laumeier Sculpture Park
M.F.A., Maryland Institute, College of Art
Kenneth Anderson, Professor
M.F.A., Southern Illinois University, Edwardsville
Ruth L. Bohan, Professor
Ph.D., University of Maryland
Yael Even, Professor
Ph.D., Columbia University
Dan Younger, Professor
M.F.A., University of Iowa
Marian Amies, Associate Professor
M.F.A., Southern Illinois University, Edwardsville
Phillip E. Robinson, Associate Professor
M.F.A., University of Illinois, Chicago
Gretchen Schisla, Associate Professor
M.F.A., Boston University
Jeffrey L. Sippel, Associate Professor, BFA Coordinator
M.F.A., Arizona State University
Susan Waller, Associate Professor
Ph.D., Northwestern University
Karen Cummings, Assistant Professor
Ph.D., University of Illinois at Urbana-Champaign
Jennifer McKnight, Assistant Professor
M.F.A., California Institute of the Arts
Sharon Callner, Associate Teaching Professor
M.F.A., Northern Illinois University
Luci Mauricio-McMichael, Associate Teaching Professor
M.F.A., Fontbonne University
Terry L. Suhre, Associate Research Professor, Gallery
Director
M.F.A., Southern Illinois University, Carbondale
Bridget Sandhoff, Assistant Teaching Professor
Ph.D., University of Iowa
Linda Bangert, Lecturer
B.F.A., University of Missouri - St. Louis
Michael Cosgrove, Lecturer
B.F.A., University of Missouri - St. Louis
Stephen Da Lay, Lecturer
B.F.A., Kansas City Art Institute
Eric Gantner, Lecturer
B.F.A., University of Missouri - St. Louis
Anuradha Vedagiri, Visual Resource Curator
Ph.D., The Ohio State University

The Department of Art and Art History has a diverse faculty actively engaged in the production of art, its historical and critical evaluation, and the training of art educators. The department prides itself on its commitments to high standards of teaching and sound research achievements. Individual faculty have been cited for their teaching excellence. Art history faculty members have written books, articles, and critical reviews and regularly participate in national and international conferences. Studio art faculty exhibit nationally and internationally in group and solo juried and invited exhibitions.

General Information

Degrees and Areas of Concentration

The department offers course work leading toward the Bachelor of Arts in Art History and the Bachelor of Fine Arts in Studio Art.

Courses included in the B.A. in art history cover the arts of Asia, Africa, Europe, and North America, including Native American arts, from ancient times to the present. Courses examine the entire range of human visual expression from painting, sculpture, architecture, and photography to performance and festival arts. In each case the arts are examined within their historical, aesthetic, and cultural contexts.

The B.A. in Art History has the following learning outcomes:

- To write clearly and coherently about works of art and art historical literature;
- To possess the ability to conduct independent research on works of art and visual culture;
- To recognize and be able to apply different methodologies, recognizing that each incorporates a specific valuing system;
- To demonstrate understanding of the ethical issues surrounding cultural property;
- To analyze critically and interpret works of visual art and art historical texts;
- To demonstrate familiarity with and basic knowledge of diverse historical artworks.

The B.F.A. in Studio Art consists of a foundation art program and an emphasis area in one of the following: art education, drawing, graphic design, painting, photography, printmaking and general fine arts. UMSL has a transfer agreement with the St. Louis Community College District, which offers a direct credit transfer to upper division BFA courses for students who graduate with an AFA degree from the SLCC.

The Bachelor of Fine Arts Degree in Studio Art, with emphasis in Art Education, Drawing, Graphic Design, Painting, Photography, printmaking, and General Fine Arts, has the following learning outcomes:

- To develop visual and verbal responses to visual phenomena, and organize perceptions and conceptualizations both rationally and intuitively;
- To become familiar with the major achievements in the history of art and design, including the works and intentions of leading artists and designers in the past and present;
- To develop the capacity to identify and/or solve problems within a variety of physical, technological, social, and cultural contexts;
- To understand and evaluate contemporary thinking about art or design;
- To become familiar with and develop competence in a number of art or design techniques;
- To make valid assessments of quality and effectiveness in design projects and works of art, especially their own

To support its teaching and research objectives, the department maintains a slide collection of over 110,000 slides and an expanding database of digital images. The collection, which includes examples of painting, sculpture, architecture, photography and decorative arts, is under the supervision of a professional visual resource curator, who is available for special assistance to staff and students.

Gallery 210

Gallery 210, located in Building 7, 44 East Drive, offers visual arts programming of regional, national, and international importance. The gallery's exhibitions and related arts programming have enjoyed a long and distinguished history of service to the university and to the St. Louis community. Gallery activities are supervised by a professional gallery director.

Gallery FAB

Located in the Fine Arts Building, Gallery FAB exhibits a range of work by artists of regional and national significance. The exhibitions are coordinated by members of the Studio Art Faculty and complement the teaching emphases of the Fine Arts program.

Gallery Visio

Gallery Visio is located in room 170 Millennium Student Center. It showcases work by students and faculty, and hosts exhibitions that address cultural and contemporary issues.

Scholarships/Internships

Several scholarships are available on a competitive basis within the department including the Art Department/Barbara St Cyr Scholarship, the William T. Isbell Jr. Scholarship, and the Aronson Scholarship. The department also sponsors a variety of internships with local arts institutions, including the Saint Louis Art Museum, Contemporary Art Museum St. Louis, and Laumeier Sculpture Park.

Undergraduate Studies

General Education Requirements

Majors in art history must meet the college and university general education requirements. A foreign language is required. French or German is recommended. Art history courses required for the degree may not be taken on a satisfactory/unsatisfactory (S/U) basis.

Art history courses can be applied toward minors in Anthropology, American Studies, Classical Studies, Philosophy, and Urban Studies, or certificates in Studies in Religions, Women's and Gender Studies, Photographic Studies and African Studies.

Majors in studio art must meet the college and university general education requirements. A foreign language is not required. Studio art courses required for the degree may not be taken on a satisfactory/unsatisfactory (S/U) basis. A minimum of 120 hours is required for graduation. Studio art courses do not fulfill the humanities general education requirement.

Degree Requirements

Bachelor of Arts in Art History

Art history majors must complete a minimum of 36, but no more than 45, hours in art history. The following four core courses are required:

1100, Introduction to Western Art

One course in non-Western art, chosen from **1102**, **1104**, **1105**, or **1108** (may be taken concurrently with **1100**):

1102, Art of Egypt and the Near and Middle East

1104, Indigenous Arts of North America

1105, The Arts of Africa

1108, Introduction to the Arts of Asia

3395, Sophomore/Junior Seminar: Research in Art History

4495, Senior Seminar

Students must take a minimum of three lower-division courses, one from each of the following categories:

Ancient and Medieval

2211, Art and Archaeology of the Ancient World

2212, Greek Art and Archaeology

2213, Roman Art and Archaeology

2214, Early Christian and Byzantine Art

2225, Medieval Art

Early Modern

2235, Italian and Northern European Renaissance Art

2240, French Art and Architecture 1500-1715

2245, Baroque Art and Architecture

Modern and American

2250, Nineteenth Century European Art

2255, Modern Art

2265, History of Photography

- 2270, American Art to 1876
- 2272, American Art since 1876
- 2279, American Architecture
- 2281, Art Since 1960

Students must take a minimum of three upper division courses. One course must be a 4000-level Topics course. The other two courses must be chosen from two different categories in the following list.

Media in Art History

- 3303, Media and Technique in Art History
- 3350, Studies in Design
- 3360, Photography and Society
- 3375, The Art of the Print
- 3385, Studies in Architectural History

Themes in Art History

- 3365, The Artist and the City
- 3374, Philosophy of Art
- 3376, Women and the Visual Arts
- 3391, Selected Themes in Art History
- 3396, The Nude in Art
- 3397, Landscape Perspectives in Art
- 3398, The Portrait

Topics in Art History

Courses listed as "Topics" at the 4000 level, including but not limited to:

- 4435, Topics in Renaissance Art
- 4445, Topics in Baroque Art
- 4455, Topics in Modern European Art
- 4475, Topics in American Art
- 4481, Topics in Contemporary Art
- 4490, Special Study

Professional Studies

- 3387, Professional Internship
- 3388, UMSL-Saint Louis Art Museum Internship
- 3389, Visual Resources Management
- 4393, Art Museum and Gallery Management
- 4492, Museum Studies

Students must also take one course in studio art. Up to nine hours in studio art may be applied toward the B.A. in art history.

Additional hours in art history, up to the maximum of 45, may be completed with electives at the 2000 level or above.

Bachelor of Fine Arts in Studio Art

Candidates for the B.F.A. degree must complete a Foundation Art Program (which is largely satisfied by the A.F.A. degree) and an emphasis area in one of the following: art education, drawing, graphic design, painting, photography, printmaking or general fine arts. Studio art majors are required to take 75 hours in studio art (this includes 30 hours in the foundation art program) and 15 hours in Art History. A minimum of 24 hours in Studio Art

must be completed in residence at University of Missouri-St. Louis. Graduating students must also pass a faculty portfolio review.

Advanced Placement in Studio Art Classes: Studio Art Majors who have professional Graphic Design or Photographic experience may wish to submit a portfolio to a committee of studio art faculty. Depending on the nature and the quality of the student's portfolio, they may be able to obtain exemptions from selected lower level studio art courses. Students applying for these exemptions must submit their portfolios prior to the first day of class of their first semester in the BFA program. Students will be notified in writing if an exemption is granted, and will be advised of their requirements in the studio art major. All decisions of the portfolio reviews are final.

Foundation Art Program

The following courses are required for the Foundation Art Program:

- 1140, Drawing I
 - 1141, Drawing II
 - 1142, Figure Drawing I
 - 1150, Design I
 - 1151, Design II
 - 2240, Drawing III or 1143, Figure Drawing II*
 - 1030, Ceramics I, or 1132, Sculpture I or 2251, Design III
- 9 hours of Studio Art Electives
*Those planning an emphasis in drawing or painting must take ART 1142.

Students must complete 45 hours in one of the following emphasis areas:

Drawing

- 2240, Drawing III
 - 2241, Drawing IV
 - 2242, Figure Drawing III
 - 2243, Figure Drawing IV
 - 2250, Composition or Studio Elective
 - 3340, Advanced Problems in Drawing I
 - 3341, Advanced Problems in Drawing II
 - 4495/4496, Senior Studio Seminar (6 hours)
- 6 hours of Painting or Printmaking
12 hours of Studio Art Electives

Graphic Design

- 1210, Graphic Design I
- 1220, Graphic Design II
- 2210, Typography
- 2212, Image Making for Graphic Design
- 2220, Computer Design I
- 2221, Computer Design II
- 3310, Graphic Design III
- 3311, Graphic Design IV
- 3383, Advanced Problems in Graphic Design I
- 3384, Advanced Problems in Graphic Design II
- 4497, Senior Seminar in Graphic Design I
- 4498, Senior Seminar in Graphic Design II

9 hours of Graphic Design Electives

Painting

1180, Painting I
1181, Painting II
2250, Composition or Studio Art Elective
2280, Painting III
2281, Painting IV
3380, Advanced Problems in Painting I
3381, Advanced Problems in Painting II
4495/4496, Senior Studio Seminar (6 hours)
6 hours from the following list:
2240, Drawing III
2241, Drawing IV
2242, Figure Drawing III
2243, Figure Drawing IV
12 hours of Studio Art Electives

Photography

1060, Photography I
2160, Photography II
2250, Composition or Photography Elective
2262, Color Photography I
2263, Digital Photography I
3260, Photography III
3263, Digital Color Portfolio
3391, Advanced Problems in Photography I
3392, Advanced Problems in Photography II
4495/4496, Senior Studio Seminar (6 hours)
6 hours of Studio Art Electives
9 hours of Photography electives

Printmaking

1170, Printmaking I
2241, Drawing IV
2243, Figure Drawing IV
2250, Composition or Studio Art Elective
2271, Printmaking II
2274, Printmaking and Relief
3370, Advanced Problems in Printmaking I
3371, Advanced Problems in Printmaking II
4495/4496, Senior Studio Seminar (6 hours)
6 hours from the following list:
1173, Printmaking: Screen Printing I
2272, Printmaking: Lithography I
2273, Printmaking: Etching
2277, Printmaking: Photolithography
3372, Advanced Lithography
9 hours of Studio Art Electives, including one course in
Photography

General Fine Arts

30 hours of studio art electives must be taken at the 2000
level or above.

The following courses are required:

2250, Composition or Studio Art Elective
4495/4496, Senior Studio Seminar (6 hours)
6 hours from the following list:
3340, Advanced Problems in Drawing I and

3341, Advanced Problems in Drawing II or,
3370, Advanced Problems in Printmaking I and
3371, Advanced Problems in Printmaking II
3380, Advanced Problems in Painting I and
3381, Advanced Problems in Painting II or,
3391, Advanced Problems in Photography I and
3392, Advanced Problems in Photography II
Students must complete 15 hours of Art History, with at
least 9 hours taken in residence at University of Missouri-St.
Louis.

Students choosing a double major in two studio art emphasis
areas must complete all the requirements for each emphasis
area. If the double major includes Graphic Design, students
must take four semesters of Senior Studio Seminar. This
includes ART 4490, ART 4491, ART 4495, ART 4496,
ART 4497, and ART 4498.

Art Education

An art education emphasis leading toward K-12 Art teacher
certification is available. Students choosing this option must
complete degree requirements for the B.F.A. The General
Education Requirements (G.E.R.) of the College of
Education as well as the College of Fine Arts and
Communication must be fulfilled. A foreign language is not
required.

Students will take a specialized program of Foundation Art
(30 hours) that includes courses required for certification to
teach art. They will also take studio art electives, including a
minimum of three courses in one of the studio emphasis
areas: drawing, graphic design, painting, photography, or
printmaking. A minimum of 50 credit hours must be
completed in studio art. Students must also complete 15
hours of art history.

I. Foundation Art for Art Education

(10 courses; 30 hours if taken at UMSL):

1140, Drawing I

1142, Figure Drawing I

2240, Drawing III

OR

1143, Figure Drawing II

1150, Design I

1151, Design II

1030, Ceramics I

1133, Introduction to Fibers and Textiles

1180, Painting I

1170, Printing I

OR

1173, Printmaking: Screen Printing I

1141, Drawing II

II. Studio Art for Art Education (7 courses;

21 hours if taken at UMSL):

1132, Sculpture I

1061, Intro to Digital Photography

OR

2220, Computer Art I

At least three courses in one of the following areas: drawing, graphic design, painting, photography, or printmaking. Two studio art electives.

Required art education, Level II and III teacher education, and secondary education courses must be taken in residence at UMSL. Students must be admitted to the Teacher Education program of the College of Education. Students should check with the Office of Teacher Education for the most complete and current admission information. Professional education courses must be completed with a grade point average of 2.5, and no grade lower than a C is acceptable.

Level I: Exploring Education as a Profession

TCH ED 2210, Introduction to Teaching
TCH ED 2211, Introduction to American Schools
TCH ED 2212, Introduction to Learners and Learning

Level II: Analyzing the Nature and Process of Education

TCH ED 3310, Introduction to Instructional Methods
TCH ED 3312, Psychology of Teaching and Learning
TCH ED 3313, Introduction to Learners with Disability and Inclusive Education
TCH ED 4391, Teaching Reading in Secondary School
Content Areas

OR

TCH ED 3315, Literacy, Learning, and Instruction
ART ED 3328, Art Education: Theory to Practice
(same as SEC ED 3328)
ART ED 4260, Art Museum as Teaching Resource

Level III: Synthesizing Theory and Practice in Education

ART ED 4273, Curriculum and Methods of Teaching Art
(same as SEC ED 4273)
SEC ED 4996, Student Teaching in Elementary Art
SEC ED 4997, Student Teaching in Secondary Art
SEC ED 4989, Secondary Education Professional Internship

Minors

Minor in Art History

A minor in art history requires the completion of at least 18 hours in art history courses. Students must take ART HS 1100 and at least one course in non-Western art. They must also take at least 2 courses at the 3000 level or above. A maximum of 3 hours of internship can be applied toward a minor in art history. The GPA for the courses for the minor must be 2.0 or better. Nine of the 18 hours must be taken in residence at UM-St. Louis.

Minor in Studio Art

Students who wish to minor in studio art must take a minimum of 18 hours with a grade point average of 2.0 or better. Six hours must be taken at the 2000 level or above in residence at the University of Missouri-St. Louis. The requirements for the minor are as follows:

1140, Drawing I

1141, Drawing II

1150, Design I

and two consecutive courses (6 hours) in any single area to be selected from the following (students should be aware that courses are not always available in all areas):

Painting

Printmaking (any one subfield)

Photography

Graphic Design

Advanced Drawing

plus a studio art elective: one three-hour course.

Photographic Studies Certificate

UMSL students, graduates, and post-baccalaureate candidates may obtain a certificate in photographic studies by coordinating courses in and related to photography. To be eligible for the certificate, undergraduates must complete a degree in a chosen major field. A faculty member of the Interdisciplinary Photographic Studies Committee will act as adviser to all students and will consult with the faculty adviser in the student's major to plan appropriate credits.

Requirements

The following courses are required:

ST ART 1060, Photography I

ST ART 2160, Photography II

ART HS 2265, History of Photography

ST ART 3260, Photography III, or

INTDSC 3390, Independent Studies in Photographic Studies

ART HS 3360, Photography and Society

Students must also take at least one 3-hour course selected from the following departmental offerings.

ART HS 1100, Introduction to Western Art

ST ART 2262, Color Photography I

ST ART 2263, Digital Photography

ST ART 2264, Non-Silver Photography

ST ART 2268, Video Art I

ST ART 2277, Printmaking: Photolithography

ST ART 3260, Photography III

ST ART 3362, Color Photography II

ST ART 3364, Video Art II

ART HS 3374, Philosophy of Art

ST ART 3390, Special Studies

ST ART 3391, Advanced Problems in Photography I

ST ART 3392, Advanced Problems in Photography II

BIOL 4784, Techniques in Electron Microscopy

COMM. 1050, Introduction to Mass Media

COMM. 1070, Introduction to Cinema

COMM. 2210, Television Production

ENGL 3140/COMM 3214, News Writing

ENGL 3150, Feature Writing

INTDSC 3390, Independent Studies in Photographic Studies

PSYCH 2213, Principles of Perception

Pre-Professional Graduation: Architecture

The Department of Art 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 UMSL after the satisfactory completion of the first year of professional school upon meeting one or more of the following conditions:

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.

A student who has not completed required courses for a degree must remedy the deficiency with courses taken at UMSL 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 the professional school.

A student who has not completed all the courses required for a major may, if the major department at UMSL 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 UMSL shall be waived where necessary for students graduating under this procedure.

Career Outlook

Study in art history broadens and enriches a general education, offering insight into the visual, architectural, and cultural artifacts left by earlier, as well as modern, civilizations. Art history graduates have found career opportunities in teaching, museums, galleries, libraries, historical societies, sales and auction houses, historic preservation, and arts administration.

Students with degrees in studio art find careers in teaching, advertising, public relations, graphic design, illustration, film and video production, arts administration, art restoration, product and industrial design, framing, and commercial photography.

Art education has been identified by the Missouri Department of Elementary and Secondary Education as an area of critical need. With over 300 art teachers in the greater St. Louis region alone, there is a demand for art teachers statewide each year.

Course Descriptions

Courses in this section are grouped as follows: Art History and Art (Studio). Prerequisites may be waived by consent of instructor. For the nonmajor, any number of studio courses will be accepted as electives.

Students who have earned 24 or more semester hours of credit at any accredited post-secondary institutions(s) before the start of the fall 2002 semester must meet the general education requirements stipulated in the University of Missouri-St Louis 2001-2002 Bulletin. The following courses fulfill the Humanities breadth of study requirements as described in that Bulletin:

Art History 1100, 1102, 1104, 1105, 1108, 1110, 2211, 2212, 2213, 2214, 2225, 2235, 2237, 2245, 2250, 2255, 2265, 2270, 2272, 2279, 2281, 2291, 2295, 3303, 3363, 3365, 3374, 3375, 3376, 3385, 3390, 3391, 3393, 3395, 3396, 3397, 3398, 4408, 4411, 4425, 4435, 4445, 4455, 4475, 4481, 4490, 4495.

The following courses meet the Cultural Diversity requirement: Art History 1102, 1104, 1105, 1108, 1110, and 4408.

Art Education

2179 Art Activities for Elementary Schools (3)

Same as ELE ED 2179. A study of art principles and laboratory experiences with various media and materials. Stresses curriculum planning and development 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.

3328 Art Education: Theory to Practice (3)

Prerequisites: TCH ED 2210, 2211, 2212 and completion of Foundation Art Program. Same as SEC ED 3328. Development and application of concepts related to comprehensive art education and standards-based curriculum in art education, with an examination of current theories, trends, publication, and on-line resources in the field.

4260 Art Museum as Teaching Resource (3)

Prerequisites: TCH ED 2210, 2211, 2212, 9 hours of Art History, and completion of Foundation Art Program. Should be taken concurrently with ART ED 3328. Students will learn how to strengthen K-12 art education by utilizing the collections and resources of the St. Louis Art Museum. A variety of teaching approaches and learning activities for galleries and classrooms will be employed, focusing on art from around the world and throughout history.

4273 Curriculum and Methods of Teaching Art (3)

Prerequisites: SEC ED 3328 and completion of, or concurrent enrollment in TCH ED 3310, 3312, 3313, 3386. Same as SEC ED 4273. A study of the scope and sequence of art education in the school curriculum with emphasis on the preparation, selection, organization and application of materials and methods of instruction and assessment. Attention is also given to learning the research tools of the scholar in the field of art education. Not available for graduate credit.

4290 Special Study in Art Education (1-6)

Prerequisites: Junior, senior, or graduate standing and consent of instructor. Independent study through readings, reports, field research, or special projects. May be repeated for credit, up to a maximum of 6 credit hours.

4334 Topics in Contemporary Art Education (3)

Prerequisites: Upper-division or graduate standing. Intensive study for advanced students and art teachers, emphasizing specialized techniques and innovative concepts. Topics to be announced. May be repeated for credit, up to a maximum of 9 credit hours.

4996 Student Teaching in Elementary Art (6)

Prerequisites: SEC ED 4273, 45 hours Studio Art, 15 hours Art History and admission to student teaching. Intensive clinical teaching experience under university and school supervision, with seminar included. Must be taken in block with SEC ED 4997. Not available for graduate credit.

4997 Student Teaching in Secondary Art (6)

Prerequisites: SEC ED 4273, 45 hours Studio Art, 15 hours Art History, and admission to student teaching. Clinical teaching experience under university and school supervision in middle/junior high and/or high school, with seminar included. Must be taken in block with SEC ED 4996. Not available for graduate credit.

5588 Museum Education and Visitor Research (3)

Prerequisite: Consent of director of Museum Studies Program. Development and operation of museum educational programs: learning theory; program design; relationships with exhibit development; programming for children and adults. Visitor research: theoretical foundations; research design; impact on programming and strategic planning.

5590 Special Study in Art Education (1-6)

Prerequisites: Graduate standing and consent of instructor. Independent study through readings, reports, field research or special projects. May be repeated for credit.

Art History

1100 Introduction to Western Art (3) [H]

An introduction to major historical movements in Western art.

1102 Art of Egypt and the Ancient Near and Middle East (3)

A survey of art in Egypt, the Ancient Near East, and the Middle East. A variety of artistic genres will be studied in relation to their social, political, and religious contexts. This course satisfies the cultural diversity requirement.

1104 Indigenous Arts of North America (3) [H, CD]

A survey of the indigenous arts of North America from pre-contact through the present. Cultures to be covered include Iroquois and Ojibway of the Northeast; Navajo and Pueblo

of the Southwest; Kwaguith and Gitsxan of the Northwest Coast; and Inuit from the Arctic. The relationship of art to religion, philosophy, politics, and social life will be explored.

1105 Introduction to the Arts of Africa (3) [H, CD]

A survey of the major achievements in painting, sculpture, and architecture of the continent of Africa, with an emphasis upon the religious and social contexts of the arts. This course satisfies the cultural diversity requirement.

1108 Introduction to the Arts of Asia (3) [H, CD]

A survey of the major achievements in architecture, sculpture, and painting of India, China, Japan and Southeast Asia, with an emphasis on religious, historical, and social context of the arts. This course satisfies the cultural diversity requirement.

1110 The Arts of Japan (3) [CD]

A survey of the art and architecture of Japan from prehistory to the present. Topics will include sculpture, architecture, pottery, gardens, Japanese prints and paintings in their various forms, i.e. Chinese style, purely Japanese style, narrative scrolls, Zen, and Rimpa.

2211 Art and Archaeology of the Ancient World (3) [H]

Prerequisite: ART HS 1100. A survey of art in Egypt, the Ancient Near East, Greece, and Rome, beginning in the Neolithic era (8000-4000 BC) and ending with the Barbarian invasions of Italy in the fifth century A.D. The major highlights of architecture and city planning, sculpture, painting, pottery, and the minor arts will be covered.

2212 Greek Art and Archaeology (3) [H]

Prerequisite: ART HS 1100. General survey of material culture in the Aegean basin, beginning with the Bronze Age (third millennium BC), and terminating in the late Hellenistic period (second century BC). For the Hellenistic period the course will trace Greek developments and influences outside of the Aegean, for example, in Italy and in Egypt.

2213 Roman Art and Archaeology (3) [H]

Prerequisite: ART HS 1100. General survey of material culture in Italy and its dependencies beginning with prehistoric Italy (ninth and eighth centuries B.C.) and terminating in late antiquity (the fifth century A.D.). The course will focus on the regional variants of Roman art in such places as Gaul, Spain, Great Britain, North Africa, and the Greco-Roman East.

2214 Early Christian and Byzantine Art (3) [H]

Prerequisite: ART HS 1100. Survey of the development of Christian imagery during the Late Antique period, the Constantinian epoch, the development of the early Byzantine style during the sixth century, and later innovations in style and subject matter in later Byzantine art until AD 1453.

2225 Medieval Art (3) [H]

Prerequisite: ART HS 1100. A survey of the art and architecture of the Mediterranean World and northern Europe from late antiquity to the Late Gothic period (300-1300 A.D.). Focus on new styles and subject matter in painting, sculpture, and architecture.

2235 Italian and Northern European Renaissance Art (3) [H]

Prerequisite: ART HS 1100 or permission of instructor. An introduction to selected artworks, artists and patrons in Italy and Northern Europe throughout the fifteenth and sixteenth centuries, beginning with Ghiberti and Van Eyck and ending with Michelangelo and Brughel.

2240 French Art and Architecture (3) [H]

Prerequisite: ART HS 1100 or permission of the instructor. A survey of art and architecture in France from the late medieval period to the late baroque. Topics will include the development of French chateaux and gardens, the rise of the Academy, and the influence of royal patronage on the arts.

2245 Baroque Art and Architecture (3) [H]

Prerequisite: ART HS 1100 or permission of the instructor. A survey of the major paintings, statues, buildings, and their artists and patrons in seventeenth-century Italy, France, Flanders, Holland, and Spain. Special attention will be given to the study of the city of Rome.

2250 Nineteenth Century European Art (3) [H]

Prerequisites: ART HS 1100 or consent of the instructor. A survey of European art from 1780 to 1880, focusing on developments in England, France, Germany, and Scandinavia. Topics to be addressed include Neoclassicism, Romanticism, Realism, and Impressionism.

2255 Modern Art (3) [H]

Prerequisite: ART HS 1100 or consent of the instructor. A survey of art from 1880 to 1960. Topics to be addressed include Post-Impressionism, Cubism, Surrealism, Abstract Expressionism, and non-representational art.

2265 History of Photography (3) [H]

Prerequisite: ART HS 1100 or consent of instructor. A study of photography: its historical development, an examination of it as an art medium, and its influence on the development of modern art.

2270 American Art to 1876 (3) [H]

Prerequisites: ART HS 1100 or consent of the instructor. An overview of the major developments in painting, sculpture, and the decorative arts in the United States to 1876.

2272 American Art since 1876 (3) [H]

Prerequisites: ART HS 1100 or consent of the instructor. Major developments in American painting, sculpture, and the decorative arts since 1876.

2279 American Architecture (3) [H]

Prerequisite: ART HS 1100 or consent of the instructor. An overview of American architectural practice from 1600 to the present.

2281 Art since 1960 (3) [H]

Prerequisite: ART HS 1100 or consent of the instructor. A survey of art from 1960 to the present. Topics to be addressed include Pop Art, Conceptual Art, Minimalism, performance art, and other recent art forms and movements.

2291 Issues and Ideas in Art History (3)

Prerequisite: ART HS 1100 or permission of instructor. Intensive studies of a few selected works from various eras and cultures, with special attention to the particular social and cultural factors surrounding their creation. May be repeated for credit with change of topic and permission of adviser.

2295 Special Topics in Art History (1-3)

Prerequisite: ART HS 1100 or consent of instructor. Selected topics in art history. This course may be repeated for credit.

3303 Media and Technique in Art History (3)

Prerequisite: ART HS 1100, and two other courses in art history. Technical demonstration of and research into various materials and media used by artists. In addition to ancient media such as egg tempera and fresco, it will include modern media such as photography and video.

3350 Studies in Design (3)

Prerequisites: ART HS 1100 or consent of instructor. The course examines selected topics in the history of design, and may include genres such as architecture, material culture, or graphic design. May be repeated for credit with a different topic, for a maximum of 6 credit hours.

3360 Photography and Society (3)

Same as INTDSC 3360. 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. This course counts toward the major.

3365 The Artist and the City (3)

Prerequisite: ART HS 1100. Examines the role of urban centers as a focus for significant artistic activity, as a recurring theme in art, and as a spatial and physical architectural reality. Aspects of urban planning, urban imagery in art, and the social, political, and personal networks artists develop as a result of living in particular urban centers at particular moments in history will be among the topics discussed.

3374 Philosophy of Art (3)

Same as PHIL 3374. A study of issues concerning the definition of art, meaning and truth in the arts, aesthetic experience, and criticism.

3375 The Art of Print (3)

Prerequisite: ART HS 1100 or consent of the instructor. A study of the history of print forms: woodcuts, etchings, engravings, lithographs, silk-screens, monotypes, and mixed media. Special emphasis will be given to the importance of prints to the art and artists of our time.

3376 Women and the Visual Arts (3)

Prerequisite: ART HS 1100 or enrollment in the Women's Studies Certificate Program recommended. Selected topics concerning women as creators, users, and subject matter of art. Great women artists in the Western world will be studied, as well as women weavers, potters, and sculptors in non-western society.

3385 Studies in Architectural History (3)

Prerequisite: ART HS 1100 or consent of instructor. A study of selected topics in architectural history. The content of the course will vary, and the course may be repeated for credit with permission of the instructor and departmental adviser. Possible topics include the history of the castle, factory architecture, the evolution of the Gothic cathedral, and domestic and vernacular architecture.

3387 Professional Internship (1-6)

Prerequisites: ART HS 1100 and 6 additional credit hours in art history and consent of instructor. The internship provides experience in museums, historical societies, galleries, design firms, or visual resource collections. Students will assist in the diverse duties associated with the day-to-day functions of the institution, under the joint direction of a faculty adviser and a supervisor at the institution. Course requirements may include readings, research assignments, and/or a paper. This course may be counted for art history or studio art credit with the department's consent.

3388 Saint Louis Art Museum Internship (3)

Prerequisites: Art & Art History or Anthropology major, ART HS 1100 and 6 additional credit hours in art history or consent of instructor. Students selected by the Internship Committee will work 15-20 hours per week under the direction of staff at the Saint Louis Art Museum. Projects may include research on the collection, exhibitions, and programs.

3389 Visual Resources Management (1-3)

Prerequisites: ART HS 1100 and additional 6 credit hours in art history, or consent of instructor. A hands-on course in the Department of Art and Art History's media center that will cover collection development and management as well as technical and theoretical issues in the visual resources profession.

3390 Special Study (1-10)

Prerequisites: Junior or senior standing and consent of department and instructor. Independent study through readings, reports, or field research.

3391 Selected Themes in Art History (3)

Prerequisites: ART HS 1100 or consent of instructor. The course examines selected themes in art history. Course content will vary; the course may be repeated for credit with a different theme, for a maximum of 6 credit hours.

3394 Art Criticism (3)

Prerequisite: ART HS 2255 or ART HS 2281 or permission of instructor. An overview of the history and function of art criticism, focusing principally on the theory and criticism of twentieth-century art. Students will attempt their own critical writings on contemporary art.

3395 Sophomore/Junior Seminar: Research in Art History (3)

Prerequisites: ART 1100 and six additional hours in art history. An introduction to research and writing techniques in art history, organized around a topic to be announced. Course includes directed readings, research, and writing.

3396 The Nude in Art (3)

Prerequisites: ART HS 1100 and one other course in art history. An exploration of the various meanings of nudity in art. The cultural, social, and psychological contexts of nudity in art will be examined in different historical periods and geographic regions, both Western and non-Western. Representations of both males and females will be analyzed in terms of gender construction, political authority, and personal identity.

3397 Landscape Perspectives in Art (3)

Prerequisite: ART HS 1100. This seminar considers the various conventions for representing landscape and nature, and human relationships to landscape, throughout history and across cultures. Issues to be considered may include landscape as metaphor in European painting, contemporary earthworks, landscape photography, and the relationship of artist to landscape in the non-Western world.

3398 The Portrait (3)

Prerequisite: ART HS 1100 or permission of instructor. An examination of portraiture in its social, economic and political contexts. Group and individual portraits will be analyzed in terms of gender construction, social status, family history and personal and public identity throughout selected periods of Western and non-Western culture.

4393 Art Museum and Gallery Management (3)

Prerequisites: ART HS 1100 and 6 additional credit hours in art history. This course will consider the practical application of professional training in art history as it applies to not-for-profit gallery management. Topics covered will include: grant writing in the arts, the development of art exhibits, the role of the art curator, and the operation of a gallery.

4408 Topics in the Arts of Asia (3) [CD]

Prerequisite: ART HS 1108 or consent of instructor. Intensive study of selected topics in the arts of Asia. The

content of the course will vary. May be repeated for credit with permission of instructor and adviser. This course satisfies the cultural diversity requirement.

4411 Topics in Ancient Art and Archaeology (3)

Prerequisites: One of the following: ART HS 2211, 2212, 2213, 2214, or consent of instructor. Intensive study of some aspect of ancient art and archaeology, with emphasis prior to the common era. May be repeated for credit with permission of instructor and adviser.

4425 Topics in Medieval Art (3)

Prerequisite: ART HS 2225 or consent of instructor. A study of selected topics in Medieval art. The content of the course will vary, focusing on single topics such as manuscript painting, the Gothic cathedral and its sculptural decoration, or the art of pilgrimage churches. May be repeated for credit with permission of instructor.

4435 Topics in Renaissance Art (3)

Prerequisite: ART HS 2235, 2237 or 2238 or consent of instructor. Studies of selected topics, which will vary. Subjects to be considered may include the art of Florence, the role of patronage in Renaissance Italy, and Papal art. May be repeated for credit.

4445 Topics in Seventeenth and Eighteenth-Century European Art (3)

Prerequisite: ART HS 2245 or consent of instructor. A study of selected topics in Baroque and Rococo art. The content of the course will vary, focusing on single areas, such as the Baroque in Rome; or on major artists, such as Bernini, Rubens, and Rembrandt. May be repeated for credit with permission of instructor and adviser.

4455 Topics in Modern Art (3)

Prerequisite: ART HS 2255 or consent of instructor. Intensive study of selected topics in art of the nineteenth and/or twentieth centuries. May be repeated for credit with permission of instructor and adviser.

4475 Topics in American Art (3)

Prerequisite: ART HS 2270 or 2272 or 2279 or consent of instructor. Intensive study of selected topics in American art. May be repeated for credit with permission of instructor and adviser.

4481 Topics in Contemporary Art (3)

Prerequisites: ART HS 1100 and ART 2281 or consent of the instructor. Intensive study of selected topics in art since 1960. May be repeated for credit with permission of instructor and adviser.

4490 Special Study (1-10)

Prerequisites: Junior/senior standing and consent of department chairperson and instructor. Independent study through readings reports or field research.

4492 Museum Studies (3)

Prerequisites: ART HS 1100 and 6 credit hours in other art history courses. This course is intended as an introduction to the function and operation of the art museum. Sessions will include the history of art museums and collecting policies; the organization of art museums; the tasks of the curator; the registration practices; art conservation; the museum as an educational institution; the organization and planning of permanent galleries; and the planning and installation of temporary exhibitions.

4495 Senior Seminar: Methods of Art History (3)

Prerequisite: ART HS 3395, ENGL 3100 and senior standing in art history or consent of instructor. An advanced class in the methods of art historical analysis. Theoretical perspectives will include connoisseurship, style, iconography, social history, and others.

5578 Topics in American Art (3)

Prerequisite: Graduate standing and consent of instructor. This course examines a discrete aspect of the history of American art within the changing social, cultural and historical contexts of Euro-American and/or Native American experiences and traditions.

5592 The History of the Visual Arts in American Museums (3)

Prerequisite: Graduate standing and consent of instructor. This course is an introduction to selected topics in the history of museology, focusing on art and anthropology museums as sites for the interpretations of art and culture, and as contested meeting grounds for various views of history and culture.

6035 Foundations of Museology I (3)

Prerequisite: Consent of Director of Museum Studies Program. Same as ANTHRO 6035 and HIST 6035. Concepts for understanding museums; museology and general social theory; information transfer vs. Meaning-making models; museums and communities; the changing role of museums; museums as complex organizations. process models of museology.

6036 Foundations of Museology II (3)

Prerequisite: ART HS 6035 and consent of Director of Museum Studies Program. Same as ANTHRO 6036 and HIST 6036. Audience-centered approaches to museology; visitor research and learning theory; philosophical and practical considerations in museum planning; the physical design of museums; creativity; exhibit and program development; collections and curation; the challenge of diversity; the future of museums.

6037 Effective Action in Museums (3)

Prerequisite: Consent of Director of Museum Studies Program. Same as ANTHRO 6037 and HIST 6037. The nature of the work done in museums; how museums are organized to accomplish this work; professional roles and practices; technology and resources used by museums, skills

for creative and effective leadership in project management and administration in museums; planning, flow charting, budgeting, team dynamics, and related skills. The course will include several site visits to area museums and guest lectures by a variety of museum professionals.

Art (Studio)

1030 Ceramics I (3)

An introduction to basic methods and theory of ceramics including work with hand-built construction, wheel techniques, and glazing. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

1060 Photography I (3)

An introduction to the techniques and aesthetics of black and white photography, the camera and the darkroom. Students must provide a camera with adjustable speeds and aperture. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

1061 Introduction to Digital Photography (3)

An introduction to the techniques and aesthetics of digital photography, along with photo editing software and printing techniques. Students must provide a digital camera. Lab fee required. Basic computer lab equipment will be provided, though students will need to supply some personal equipment and supplies. Students who plan to pursue a career in art should enroll in ST ART 1060 rather than ST ART 1061. ST ART 1061 does not satisfy the prerequisite requirements for other courses in Photography beyond the 2000 level, but may count towards Photography electives.

1080 Comics and Cartoon Illustration (3)

A course in creating and appreciating the world of comics and cartoons. This course will investigate the tools and techniques for creating cartoons, cartoon illustrations and the world of comics. Students will create their own cartoons with traditional media and also with computers. While designed for beginners, experienced artists will be encouraged to perfect their personal styles. The class will create and print its own comic book. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

1130 Ceramics II (3)

Prerequisite: ART 1030. A continuation of ART 1030. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

1132 Sculpture I (3)

An introduction to traditional and contemporary materials, aesthetics, and theories of three-dimensional art. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

1133 Introduction to Fibers and Textiles (3)

Prerequisites: ART 1150. Exploration of a variety of on – and off – loom weaving and other fiber and textile media and techniques. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

1140 Drawing I (3)

An introduction to drawing through the study of figure, object, and environment. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

1141 Drawing II (3)

Prerequisite: ART 1140. The development of drawing skills through continued observation and problems of invention. A further exploration of varied drawing materials and techniques including graphite, charcoal, conte crayon, and inks. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

1142 Figure Drawing I (3)

Basic studies of the human form and anatomy from the model in a variety of drawing media. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

1143 Figure Drawing II (3)

Prerequisite: ART 1142. Continuation of Figure Drawing I. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

1150 Design I (3)

Studio problems in the creative use and integration of the elements of two-dimensional design: line, form, space, texture. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

1151 Design II (3)

Prerequisite: ART 1150. A continuation of ART 1150, two-dimensional design, with introduction to color theory. Some application of mixed media problems. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

1170 Printmaking I (3)

Prerequisite: ART 1150 and ART 1141 or consent of instructor. An introduction to printmaking techniques, materials, and theories. The course will include work in a variety of print materials. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

1173 Printmaking: Screen-printing I (3)

Prerequisite: ART 1170. An introduction into the techniques, methods, and aesthetics of screen-printing. Studio problems involving uses and approaches will be emphasized. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

1175 Arts and Ideas (3)

Same as ENGL 1175, HIST 1175, Music 1175, PHIL 1175, TH DAN 1175. An interdisciplinary course tied to the semester's offerings at the Blanche Touhill Performing Arts Center as well as other events on campus featuring the visual arts, literature, music, and film. Each semester the course will provide background on the arts in general and will critically examine particular performances and offerings. Special themes for each semester will be selected once the Touhill schedule is in place. Students will be expected to attend 6-8 performances or exhibitions. Can be repeated once for credit.

1180 Painting I (3)

Prerequisite: ART 1140, ART 1150 or consent of instructor. An introduction to the use of oil and/or acrylic painting media. Studio problems to develop technical and expressive skills on various surfaces. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

1181 Painting II (3)

Prerequisite: ART 1180 or consent of instructor. Continuation of basic studio problems in painting media. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

1210 Graphic Design I (3)

Introduction to graphic design with an emphasis on fundamentals of space, emotion, shape, form, and concept. Projects in design, layout and typography will be addressed. The course is recommended to be taken concurrently with ART 1150, Design I. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

1220 Graphic Design II (3)

Prerequisite: ART 1150 and 1210. Continuing introduction to graphic design, focusing on developing concepts and design process, typographic systems, and layout systems. The course is recommended to be taken concurrently with ART 2220, Computer Design I. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

2160 Photography II (3)

Prerequisite: ART 1060. Continuation of Photography I at the intermediate level. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

2210 Typography (3)

Prerequisites: ART 1220 or consent of instructor. This course intends to instill a sense of responsibility relative to typographic and production design, while developing the student's capacity for critical thinking and general typographic rules, visual hierarchy of typographic elements, classical typographic tradition, book design, awareness of typographic aesthetic.

2212 Image Making for Graphic Design (3)

Prerequisites: ST ART 1220 or instructor's consent. This course teaches skills of making images and custom type for use in visual communication. Topics covered include a survey of traditional and experimental illustration techniques with an emphasis on creation of original imagery. The class will discuss how hand images are further developed and combined on the computer for use in design. Creativity, discovery, and craft are highly emphasized. Lab fee required.

2220 Computer Design I (3)

Prerequisite: ART 1150 and 1210. An introduction to the use of computer graphics for the creation of artwork applicable to the graphic design industry. The course is recommended to be taken concurrently with ART 1220, Graphic Design II. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

2221 Computer Design II (3)

Prerequisite: ART 2220. Designed to familiarize students with the methods, processes, software, and computer functions used in graphic design and illustration. The course is recommended to be taken concurrently with ART 3310, Graphic Design III. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

2232 Sculpture II (3)

Prerequisite: ART 1132. Continuation of Sculpture I. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

2240 Drawing III (3)

Prerequisites: ART 1140 and ART 1141. This course offers studio problems designed to further the development of drawing skills in various media. Limited color will also be introduced. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

2241 Drawing IV (3)

Prerequisite: ART 2240. Studio problems with emphasis on color and multi-material approach to drawing. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

2242 Figure Drawing III (3)

Prerequisites: ART 1142 and ART 1151. Advanced study of the human form and anatomy from the model in a variety of drawing media. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

2243 Figure Drawing IV (3)

Prerequisite: ART 2242. Continuation of Figure Drawing III. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

2250 Composition (3)

Prerequisites: ART 1150 and ART 1151. An investigation of the use of formal design elements as used in historic and contemporary art. Weekly studio problems and discussions will concentrate on skills, application, and unifying effects of compositional elements on a variety of visual art forms. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

2251 Design III (3)

Prerequisites: ART 1150 and ART 1151. Advanced studio problems in design materials. Use of two-dimensional and three-dimensional mixed media. Experimental use of materials and media will be introduced. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

2262 Color Photography I (3)

Prerequisite: ART 1060 or equivalent. An introduction to the techniques and aesthetics of color photography. Mastering the printing and finishing processes and producing a color print portfolio will be the requirements of this class. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

2263 Digital Photography I (3)

Prerequisite: ART 1060 or consent of instructor. An introduction to computer usage in photography. The basic computer techniques and software applications for digitizing, retouching, enhancing and altering photographic images will comprise the core of this course. This class will involve both learning exercises and the creation of original computer-aided photographic art. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

2264 Non-Silver Photography (3)

Prerequisites: ART 1060 and ART 2160. An introduction to the aesthetics and techniques of non-traditional photographic processes. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

2265 Commercial Applications in Photography

Prerequisites: ART 2160 and permission of adviser. Exploration of issues and applications in commercial photographic production. Topics will vary. Course may be repeated for credit with permission of adviser. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

2268 Video Art I (3)

Prerequisite: ST ART 2160 or permission of instructor. An introduction to video as an art form. Knowledge of contemporary uses and video techniques will be stressed. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

2271 Printmaking II (3)

Prerequisite: ART 1170 or consent of instructor. A continuation of Printmaking I. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

2272 Printmaking: Lithography I (3)

Prerequisite: ART 1150 and ART 1141 or consent of instructor. An introduction to printmaking skills and theory in stone and plate lithography. Studio problems in the use of materials and equipment. Attention will be given to individual development. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

2273 Printing: Etching (3)

Prerequisites: ART 1150 and ART 1141 or consent of instructor. An introduction to printmaking skills and theory of contemporary etching practices. Development of skills and aesthetic judgments in the media using non-toxic etching processes. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

2277 Printmaking: Photolithography I (3)

Prerequisite: ART 1060 or departmental consent. An introduction to printmaking skills and theory in stone and plate lithography with particular emphasis on the photographic applications of the process. Some attention will also be given to commercial printmaking applications while studio problems in the use of materials and equipment will be stressed. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

2281 Painting IV (3)

Prerequisite: ART 2280. A continuation of Painting III. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

2283 Watercolor Painting (3)

Prerequisites: ART 1150 and ART 1141. Beginning problems in watercolor painting. Includes the study of traditional and contemporary approaches to color, color techniques, and treatment of papers. May be repeated for credit. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

2290 Special Study (1-10)

Prerequisites: Junior/Senior standing and consent of department and instructor. Independent study through readings, reports or field research. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

2312 Special Topics in Graphic Design (3)

Prerequisites: ART 1220. Studies of selected topics, which will vary. May be repeated for credit with a different topic, for a maximum of 9 credit hours. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

3260 Photography III (3)

Prerequisite: ART 2160. An exploration into contemporary theories and trends in photography. Advanced projects, portfolios and techniques will be expected from those enrolled. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

3263 Digital Color Portfolio (3)

Prerequisite: ST ART 2263. Intermediate exploration of the aesthetics and techniques of digital photography including an investigation of color management in printing. Students will produce one or more portfolios of digital images. Lab fee required. Basic lab equipment will be provided, though students will need to supply some personal equipment and supplies.

3274 Printmaking and Relief (3)

Prerequisites: ART 1170 and ART 2271. Advanced problems in printmaking. Problems in relief printmaking. Work in wood and mixed materials. Development of skills and aesthetic judgments in the media. May be repeated for credit with consent of instructor. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

3280 Painting III (3)

Prerequisite: ART 1181 or consent of instructor. Advanced studio problems in painting media. Attention paid to individual development of theory, expression, and technique. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

3310 Graphic Design III (3)

Prerequisites: ART 1220 and 2220. Advanced studio problems to further the understanding of design and its relationship to typographic elements, illustration, and communication. The course will encourage both conceptual and technical development of the designer. The course is recommended to be taken concurrently with ART 2221, Computer Design II. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

3311 Graphic Design IV (3)

Prerequisite: ART 3310 and 2221. Further studio problems in the graphic arts. The course is recommended to be taken concurrently with ART 2210, Typography. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

3312 Advanced Topics in Graphic Design (3)

Prerequisite: ART 3311 or consent of instructor. Studies of selected topics, which will vary. May be repeated for credit with a different topic, for a maximum of 9 credit hours. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

3340 Advanced Problems in Drawing I (3)

Prerequisite: ART 2241. This course is focused on professional-level art and portfolio production. It offers studio problems designed to further the development of drawing skills. Emphasis will be given to the study of drawing as an independent art form. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

3341 Advanced Problems in Drawing II (3)

Prerequisite: ART 3340. A continuation of ART 3340. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

3350 Studio Art Internship (1-6)

Prerequisites: Junior/Senior standing in studio art and consent of the faculty advisor. The internship provides experience in design firms, professional art studios, or comparable settings. Students will assist professionals in the diverse duties associated with studio art activities. Course assignments may include research assignments and/or reports to be reviewed by the faculty advisor and/or supervisor. May be repeated for credit, up to a maximum of 6 credit hours.

3362 Color Photography II (3)

Prerequisite: ART 2262. An advanced exploration into the aesthetics and techniques of color photography. Students will be expected to refine their vision utilizing color processes. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

3363 Special Topics in Photography

Prerequisite: ST ART 2160: Photography II and permission of adviser. Selected topics in photographic practice. May be repeated for credit with permission of adviser. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

3364 Video Art II (3)

Prerequisite: ST ART 2268. An advanced exploration of video as a visual art. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

3370 Advanced Problems in Printmaking I (3)

Prerequisite: ART 3274. This course is focused upon professional-level art and portfolio production. After completion of this and the preceding course, students should be ready to meet the artistic and intellectual demands of today's visual art world. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

3371 Advanced Problems in Printmaking II (3)

Prerequisites: ART 3370. A continuation of ART 3370. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

3372 Advanced Lithography (3)

Prerequisites: ART 1173. Continuing problems in lithography with problems in black and white, photolithography, and/or color. May be repeated for credit. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

3380 Advanced Problems in Painting I (3)

Prerequisite: ART 2281. Course is focused on professional-level art and portfolio production. Non-traditional materials might be explored. Attention is focused on individual development of painting theory, self-expression, and advanced techniques. The student is expected to assume a substantial responsibility with regard to direction, motivation, and content. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

3381 Advanced Problems in Painting II (3)

Prerequisite: ART 3380. A continuation of portfolio production in ART 3380. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

3383 Advanced Problems in Graphic Design I (3)

Prerequisite: ART 3311 and ART 2210. This course is focused on professional-level art and portfolio production. Lab fee required. Basic studio equipment will be provided,

though students will need to supply some personal equipment and supplies.

3384 Advanced Problems in Graphic Design II (3)

Prerequisite: ART 3383. A continuation of ART 3383. The course includes the preparation of a faculty-reviewed portfolio. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

3390 Special Study (1-10)

Prerequisites: Junior/senior standing and consent of department. Independent study through readings, reports, or field research. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

3391 Advanced Problems in Photography I (3)

Prerequisite: ART 2263 and ART 3260. This course is focused on professional-level art and portfolio production. Students may employ black and white, color, non-silver or other traditional or non-traditional press for projects in this course. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

3392 Advanced Problems in Photography II (3)

Prerequisite: ART 3391. A continuation of ART 3391. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

4389 Graphic Design Studio (3)

Prerequisite: ART 3384 or consent of instructor. Students will work on actual client projects in a studio setting from creative concept through client presentation. Studies will include client interviews, project planning, studio operations, project budget and estimating, vendor selection, prepress preparation, working in creative groups and professional presentations.

4490 Senior Seminar in Photography I (3)

Prerequisites: Senior standing and ART 3392. Weekly critiques and discussions of technical and professional issues. Will instruct students in methods of portfolio display, documentation, gallery representation, grant writing, and professional preparation. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies. Offered only during Fall semester.

4491 Senior Seminar in Photography II (3)

Prerequisites: Senior standing and ART 4490. Weekly critiques and discussions of technical and professional issues. Will instruct students in methods of portfolio display, documentation gallery representation, grant writing, and professional preparation. Lab fee required. Basic studio equipment will be provided though students will need to

supply some personal equipment and supplies. Offered only during Spring semester.

4495 Senior Studio Seminar I (3)

Prerequisites: Senior standing and ART 3381, 3341, 3392 or 3371. Weekly critiques and discussions of technical and professional issues. Will instruct students in methods of portfolio display, documentation, gallery representation, grant writing, and professional preparation. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies. Offered only during fall semester.

4496 Senior Studio Seminar II (3)

Prerequisites: Senior standing and ART 4495. Weekly critiques and discussions of technical and professional issues. Will instruct students in methods of portfolio display, documentation, gallery representation, grant writing, and professional preparation. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies. Offered only during winter semester.

4497 Senior Seminar in Graphic Design I (3)

Prerequisite: Senior standing and ART 3384. Students must pass the junior portfolio review. Weekly critiques and discussions of technical and professional issues. Will instruct students in the methods of professional preparation. Lab fee required. Basic studio equipment will be provided, though students will need to supply some personal equipment and supplies.

4498 Senior Seminar in Graphic Design II (3)

Prerequisite: ART 4497. Continuation of ART 4497. Will instruct students in the methods of professional preparation. Lab fee required. Basic studio equipment will be provided though students will need to supply some personal equipment and supplies.

Department of Communication

Faculty

Alan D. Heisel, Associate Professor, Chairperson
Ed.D., West Virginia University
Donald Shields, Professor Emeritus
Ph.D., University of Minnesota
Alice E. Hall, Associate Professor,
Graduate Program Coordinator
Ph.D., University of Pennsylvania
Elizabeth Kizer, Associate Professor Emerita
Ph.D., Purdue University
Su Ahn Jang, Assistant Professor
Ph.D., University of Texas
Amber Reinhart, Assistant Professor
Ph.D., University of Buffalo
Yan Tian, Assistant Professor
Ph.D., Temple University
Jina Yoo, Assistant Professor
Ph.D., Michigan State University
Lara Zwarun, Assistant Professor
Ph.D., University of California-Santa Barbara
Clark McMillion, Teaching Professor, Internship and
Practicum Coordinator
M.A., State University of New York at Brockport
Alan Akerson, Assistant Teaching Professor, PR Sequence
Coordinator
M.A., University of Missouri-St. Louis
Leighanne Heisel, Associate Teaching Professor, Online
Program Coordinator
M.A., West Virginia University

The faculty represents many fields within the discipline of communication including interpersonal communication, organizational communication, mass communication, public relations, and rhetoric. Most faculty members contribute to a growing body of knowledge by conducting research, publishing their results in scholarly journals, and presenting papers at national and international communication conferences. By integrating theory, research, and practice, faculty members are able to offer a comprehensive approach to contemporary communication problems.

General Information

The Bachelor of Arts in Communication

The B.A. in communication is a flexible degree program that allows the student to tailor their curriculum to meet specific interests and individual needs simultaneously providing a strong foundation in the major specializations of the discipline. The faculty encourages all students to meet early and often with their faculty adviser to select a meaningful group of courses for a coherent, career-oriented academic program. Students who seek this degree will, upon completion, understand how to communicate competently and effectively in a variety of contexts and mediums. In addition, students will develop a strong foundation in the theory and research underlying effective communication.

Finally, students will have demonstrated their competence through the internship and practicum requirements.

Minors in Communication

The Department of Communication offers a minor in Communication that can provide many benefits to students majoring in other programs (for more information, see the requirements for minors in the undergraduate studies section. The Minor in Communication can complement a variety of other degrees. Students who complete the minor will be able to understand and apply the theories underlying competent and effective communication.

Certificate in Public Relations

The Department of Communication offers a sequence of courses that can prepare students for a successful career in public relations. This writing intensive certificate program includes a selection of required and elective course that integrate practical knowledge of the PR industry with the communication theory and research that undergird it. The certificate will be valuable both to those already in the workplace, and to undergraduates pursuing a public relations career. Closely aligned with the latest recommendations from the Public Relations Society of America and the National Communication Association, the curriculum will provide students with both the public relations theoretical base and practical hands-on skills necessary to succeed in public relations.

Other Certificate Programs

In addition to offering the Certificate in Public Relations, the department supports a number of certificate programs (including Disaster and Risk Management and Secondary Education). For more information, see Certificate Programs and Interdisciplinary Studies in this *Bulletin*.

Master of Arts in Communication

The Master of Arts degree program provides the opportunity for an advanced degree program in communication with a strong theory and research emphasis. Students can select courses that emphasize broad categories of communication such as organizational communication and/or mass communication. The program will help students develop a strong background in communication theory and research which would allow for the pursuit of a doctorate in communication, opportunities for professional positions, and the potential for a vertical or lateral move within an organization. Students who complete the M.A. in Communication will have a detailed understanding of the academic discipline. They will have developed critical skills for evaluating communication related theories and research, and the ability to apply that knowledge in their own research or professional settings. For further details, please see the Graduate Studies section of the Communication Department listings.

Undergraduate Studies

General Education Requirements

Majors must satisfy the university and college general education requirements. The college's foreign language requirement may be taken in any language. Communication courses may not be taken on a satisfactory/unsatisfactory basis.

Degree Requirements

Bachelor of Arts in Communication:

Majors must complete a minimum of 36 semester hours in Communication courses. At least 18 of these must be taken at the University of Missouri-St. Louis. Furthermore, at least 12 semester hours of the Communication courses completed must be numbered 3000-4999. All students must complete the required courses and earn a C or better in all communication courses applied to the degree.

Required courses for the major:

COMM 1030, Interpersonal Communication
COMM 1050, Introduction to Mass Media
COMM 2231, Communication in the Organization
COMM 3330, Research Methods in Communication I
COMM 3331, Research Methods in Communication II
COMM 3332, Intercultural Communication

At least 3 hours from either the practicum (1193), or internship (3393) course.

Department Activities and Internships

Co-curricular projects and activities relevant to the personal, professional, and academic goals of each student are sponsored and advised by the department. Along with the traditional academic experience, students can network and develop valuable experiences through their completion of required internship or practicum courses. Students may choose from a wide-range of for-profit, nonprofit, and not-for-profit organizations (Visit the Department of Communication for more information), or consult with the Internship and Practicum Coordinator to approve a new internship site. By tailoring the internship site to the interests of each student, the internship and practicum augment the academic experience and provide valuable opportunities for majors to apply their communication studies.

Minors in Communication

Coursework for a minor in Communication consists of 15 semester hours of the core requirements for the major. Credit hours in COMM 3395 may be substituted for credit hours listed below with written consent of the communication department chairperson.

Core requirements:

COMM 1030, Interpersonal Communication I
COMM 1050, Introduction to Mass Media

COMM 2231, Communication in the Organization
COMM 3330, Research Methods in Communications I
COMM 3332, Intercultural Communication

At least 9 of the 15 hours required for the minor must be taken at UMSL.

Students must earn at least a C for all communication courses applied to the minor. A minimum GPA of 2.5 is required in the minor.

Certificate in Public Relations

The Certificate in Public Relations integrates essential professional skills with contemporary communication theory and research to provide a grounded sequence based on the recommendations of the Public Relations Society of America and the National Communication Association. To earn the certificate, students must complete a minimum of 24 credit hours in the designated courses.

Required Coursework (18 credit hours):

COMM 1150: Introduction to Public Relations (3)
COMM 3358: Communication in Public Relations (3)
COMM 3360: Health Communication in Mass Mediated Contexts (3)
COMM 4035: Integrated Approaches to Public Relations, Advertising, and Promotion (3)
COMM 4100: Communication Campaigns (3)
COMM 4199: Applied Public Relations (3) or **COMM 4393**: Internship in Applied Communication (3)

Elective Coursework (minimum of 6 credit hours required):

COMM 1050: Introduction to Mass Communication (3)
COMM 1135: Communication Theory (3)
COMM 2231: Organizational Communication (3)
COMM 2232: Communication in Organizations: Tools for Leadership (3)
COMM 2240: Persuasive Communication (3)
COMM 3330: Research Methods in Communication I (3)
COMM 3395: Special Topics in Communication (3)

For more information on this certificate, please contact the Department of Communication's Public Relations Sequence Coordinator.

Bachelor of Arts in Communication with Certification in Secondary Education

In addition to the requirements for the B.A. in communication and general requirements set by the College of Education, students must meet the state requirements for certification.

The B.A. and certification for grades 7-12 can be completed by taking a minimum of 39 hours in communication, selected according to departmental recommendations. The B.A. and certification for grades 7-9 can be obtained by

taking 36 hours in communication, selected according to departmental recommendations. Requirements of the College of Education include courses in professional education and ENG 3600, The Curriculum and Methods of Teaching English (same as SEC ED 3600).

Graduate Studies

The department offers a Master of Arts degree in Communication.

Admission requirements:

Applicants must have a baccalaureate in communication or a related discipline by the end of the semester in which they apply. The minimum cumulative GPA required for regular admission to the graduate program in communication is 3.25 on a 4-point scale. Three letters of recommendation, at least two of which address the applicant's potential to succeed in graduate studies in communication, are also required. **Finally, International students who are non-native speakers of English must obtain a TOEFL score of at least 600 on the paper-based test (or the equivalent score on other versions of the test) to be considered for admission.** Applicants with GPAs that do not meet the admission criterion may elect to take the Graduate Record Exam (GRE) to offset these deficiencies. Contact the Graduate Coordinator for more information.

Degree Requirements:

The M.A. in Communication requires either 30 or 36 credit hours of coursework, depending on the exit project. Candidates approved for a thesis or internship will complete at least 30 semester hours of approved study, at least 21 of which must be taken in courses offered by the department. Candidates completing the non-thesis, non-internship option must complete 36 semester hours of approved study, 27 of which must be taken in courses offered by the department.

Communication

COMM 6400, Seminar in Communication Theory
COMM 6405, Introduction to Communication Research Methods
COMM 6411, Seminar in Mass Communication
COMM 6431, Seminar in Organizational Communication
COMM 6435, Seminar in Advanced Applied Communication Research

After consultation with the graduate coordinator, the student selects either a 36 hour or 30 hour program and, in the latter case, develops an appropriate exit project with input from prospective committee members. The expectations for each internship vary by project and committee, but submission of an essay in which the coursework and internship experiences are integrated is typically required. Internship exit projects and theses must be approved by the student's committee and assigned a grade by the advisor. The candidate must pass an oral examination conducted by the student's committee regardless of exit option selected.

Students who complete a thesis or internship must complete no less than a 3 hour internship or 6 credit hour thesis.

Career Outlook

The B.A. in communication prepares students for careers in numerous fields. Past graduates are working in the following positions: promotion and public relations, administration, advertising, marketing, web page design, market research, corporate media, sales, training, speech writing, teaching, and research. Other students have pursued graduate education in communication programs offering the M.A. and Ph.D. degrees.

Course Descriptions

Prerequisites may be waived by consent of the instructor.

Students who have earned 24 or more semester hours of credit at any accredited post-secondary institution(s) before the start of the fall 2008 semester must meet the general education requirements stipulated in the UM-St Louis 2007-2008 Bulletin. The following courses fulfill the Humanities breadth of study requirements as described in that Bulletin: 3337, 3340, 3341, 3342, 3352.

The following courses fulfill the Social Sciences breadth of study requirements:

1135, 2230, 2231, 2243, 3330, 3331, 3332, 3333, 4335.

1000 Effective Communication for College (3)

A communication by objective approach is used to introduce students to effective communication in a college environment. Emphasis is placed on preparing and delivering effective messages whether written or spoken, formal or informal, digital or hardcopy.

1030 Interpersonal Communication I (3) [C]

Introduction to the theories of interpersonal communication. Emphasis on basic principles involved in one-to-one interactions.

1040 Introduction to Public Speaking (3) [C]

Theories and techniques of organization, evidence, argumentation, persuasion, and delivery in public speaking.

1041 Presentational Speaking (3)

Theories and techniques of presenting information in various contexts, formats, and settings. Emphasis is placed on strategic coordination for message effectiveness in a team-based environment.

1050 Introduction to Mass Media (3) [C,SS]

Introduction to oral, print, and electronic media of communication. Emphasis on history, theory, and criticism of the mass media as cultural institutions.

1135 Communication Theory (3)

Survey of elements and processes critical to human communication behavior. Comparison of influential communication theories.

1150 Introduction to Public Relations (3)

Publicity methods and public relations representation of profit and nonprofit institutions to the public; use of communication research and media, as applied to the public relations profession.

1193 Practicum in Applied Communication (1-3)

Prerequisite: Consent of instructor. Practicum work at any of the UM-St. Louis public relations offices, sports and school newspapers, Office of Research or Photography Services. Work must be done on campus, under supervision of a working professional in the field, in consultation with a faculty member.

1195 Seminar in Communication (3)

Prerequisite: Consent of instructor. In-depth study of topics pertaining to current research in the department or otherwise of timely interest to students or faculty.

2230 Small Group Communication (3)

Prerequisite: None. Development of communication skills needed in small group decision making. Application of these skills to contemporary problems.

2231 Communication in the Organization (3)

Prerequisite: Junior standing or consent of instructor. Course integrates communication theories applicable to the structure and function of organizations. The effect of communication variables on departmental interface, member satisfaction and motivation, leadership and subordinate styles, and perception of the organization by the external environment.

2232 Effective Communication in the Organization: Tool for Leadership (3)

Prerequisites: Junior standing or consent of instructor. Telecourse designed to equip students with communication skills applicable to the organizational context. The course will present effective strategies for the articulation of ideas, with particular emphasis on the development of leadership skills.

2240 Persuasive Communication (3)

Prerequisite: None. A study of persuasive communication, including theories, techniques, forms, functions, applications, potential, and limitations for the individual and organizations. Insights from both classical rhetoric and contemporary communication theory.

2243 Communication in American Politics (3)

Prerequisite: None. Analysis of audience response and media preferences in political campaigns, campaign speeches, candidates' uses of television and other mass media, and measuring effectiveness of campaign communications.

2250 Strategic Communication (3)

Prerequisite: COMM 1135 or consent of instructor. Principles of message construction in oral written, and or mediated communication. Emphasis is placed on logical reasoning, audience analysis, message structure, and attainment of communication goals. (This course was formally COMM 2241)

3130 Advanced Interpersonal Communication (3)

Prerequisite: COMM 1030. Continuation of COMM 1030, focusing on contemporary theories and research regarding interpersonal relationships.

3150 Crisis, Disaster, and Risk Communication (3)

Prerequisites: Junior standing or consent of the instructor. Course will focus on three specialized areas within public relations: communication methods and infrastructure in relation to large-scale disaster management; organizational crisis communication; public communication regarding environmental, chemical and other public risk issues.

3330 Research Methods in Communication I (3)

Introduction to the fundamental tools of quantitative research in communication. Focus of the course is on reading and comprehending communication research reports rather than conducting quantitative research.

3331 Research Methods in Communication II (3)

Prerequisite: COMM 3330. Extends the study of research methods covered in COMM 3330 to the planning and executing of research projects. Students acquire data analysis, research design, and basic measurement skills. Problems of quantitative study unique to the study of communication are explored.

3332 Intercultural Communication (3)

Prerequisite: Junior standing or consent of the instructor. Study of culture as a variable in both interpersonal and collective communicative situations. Emphasis upon opportunities and problems arising from similarities and differences in communication patterns, processes, and codes among various cultural groups.

3337 Male/Female Communication (3)

Prerequisite: Junior standing or consent of instructor. This course explores the influence of gender upon contemporary American communication behavior. Topics include semantic and syntactic variations in male and female speech, gender-role development as process and product of communication, analysis of communication patterns and barriers within gender groups. Mass, public, interpersonal, and dyadic communication contexts are considered.

3340 Rhetorical Criticism (3)

Prerequisite: COMM 1040. The application of rhetorical theories to the analytical and critical explanation of persuasive messages.

3342 Modern Rhetoric and Public Address (3)

Prerequisite: COMM 1040 or consent of instructor. A survey of the history and theories of persuasion and public address from the post-Renaissance era to the present.

3350 Physiological Measurement in Communication (3)

Prerequisites: COMM 1135, COMM 3330, junior standing or consent of the instructor. Overview of physiological measurement techniques found in classic and contemporary communication research. Conceptual and practical elements are emphasized.

3352 Mass Media Criticism (3)

Prerequisite: COMM 1050. The study of media content and its effect on society. Reading and viewing of selected works. Independent reading and critical analysis required.

3358 Communication in Public Relations I (3)

Prerequisite: COMM 1150. An overview of communication within the area of public relations. Emphasis on ethics, law, professional standards, and written communication. Case study approach.

3360 Health Communication in Mass Mediated Contexts (3)

Prerequisite: COMM 1050 or consent of instructor. Examination of the theories and literature dealing with the role of mass media in health behavior. Topics include health promotion and prevention campaigns and the effect of news and entertainment media on health behaviors.

3361 Health Communication in Interpersonal and Organizational Contexts (3)

Prerequisites: COMM 1030 and 2231, or consent of instructor. Examination of the theories and literature dealing with the role of interpersonal organizational communication in health behavior and health care organizations.

3362 Storytelling (1-3)

Prerequisite: Junior standing or consent of instructor. This course gives an overview of the history of storytelling, types of tales, and appropriate uses for storytelling. The primary emphasis of the course is in developing storytelling skills through preparation, performances, and evaluation.

3392 Administration of Cocurricular Activities (3)

Prerequisites: COMM 1040 or Consent of Instructor. A survey of skills required to administer the various cocurricular activities associated with teachers who teach speech and communication courses in the secondary schools. Practical experience in skills such as: operation of debate tournaments, public speaking competitions, and mock trial competitions.

3395 Special Topics in Communication (3)

Prerequisite: Senior or graduate standing. In-depth study of topics pertaining to current research in the department. May be repeated up to six credit hours if topic is different.

3400 Language and Behavior (3)

Prerequisites: COMM 1030, junior standing or consent of the instructor. Examination of language and behavior which includes etiological considerations, functions, meanings, perceptions, and process-interaction rules.

3410 Nonverbal Communication (3)

Prerequisites: COMM 1030, junior standing or consent of the instructor. An examination of the paralinguistic cues that accompany normal communication such as facial expression, eye behavior, gestures and body movements, accents and dialects, and the impact of touch among others. The implications for message construction, delivery, and perception are discussed.

3500 Dysfunctional Communication (3)

Prerequisites: COMM 1030, junior standing or consent of the instructor. An examination of some of the factors that impede effective communication. Emphasis is placed both on individual attributes such as verbal aggression and communication apprehension, as well as context-based factors found in family and romantic relationships among others.

3510 Communication and Conflict (3)

Prerequisites: COMM 1030, junior standing or consent of the instructor. An examination of the features that contribute to effective and ineffective communication during conflicts. The course integrates communication research and theory with practical applications in negotiation and conflict resolution.

3520 Communication Problems in Children (3)

Prerequisites: COMM 1030, junior standing or consent of the instructor. A review of communication research on developmental difficulties in children. Theories of communication, language development, acquisition, correction, and implementation are discussed.

3600 Communication and Families (3)

Prerequisites: COMM 1030, junior standing or consent of the instructor. An analysis of research and theory involving communicative attributes and phenomena unique to the family context. Communication between parent-child siblings, and extended family members, as well as more complex family structures are addressed. Functional and effective communication techniques are also discussed.

3610 Communication and Relationships (3)

Prerequisites: COMM 1030, junior standing or consent of the instructor. An examination of the contributions of communication researchers to the study of developing and maintaining human relationships with particular focus on communication in friendships and romantic relationships.

3700 Computer-Mediated Communication (3)

Prerequisites: COMM 1030, COMM 1050, junior standing or consent of the instructor. A comparison of the similarities and differences between face-to-face communication and

computer-mediated communication. Synchronous and asynchronous methods of interaction are examined, as well as other characteristics unique to the digital environment.

3800 Trends in Mass Communication (3)

Prerequisites: COMM 1050, junior standing or consent of the instructor. A theoretical and research-based examination of popular trends in mass communication. May be repeated once if topics are different.

4035 Integrated Approaches to Public Relations, Advertising, and Promotion (3)

Prerequisite: COMM 3358 or consent of instructor. Overview of how publicity, advertising and other promotional activities can be integrated into a single cohesive communication initiative or program.

4100 Communication Campaigns (3)

Prerequisites: COMM 1030, COMM 1050, COMM 1150, and junior standing or consent of the instructor. This course focuses on the design, analysis, and implementation of mass communication-based information campaigns by integrating research and theory from interpersonal, mass communication, and public relations.

4199 Applied Public Relations (3)

Prerequisites: COMM 1150, 3358, 4035, and junior standing or consent of instructor. This course provides students with an applied experience in public relations. The course may require on-site visits to private firms and/or the development of multi-year strategic plans.

4390 Directed Readings (3)

Prerequisites: Consent of instructor; not open to students who have any Y or delayed grades outstanding. Supervised independent study involving readings, conferences, papers, etc., in one of the department's disciplines: communication theory and rhetoric, or mass communication.

4391 Supervised Research (1-5)

Prerequisites: Junior/senior standing and consent of instructor; not open to students who have any Y or delayed grades outstanding. Supervised field or laboratory research, data collection, literature searches, qualitative or quantitative data analysis, report writing and other techniques used by communication researchers. Repeatable, but no more than 5 credit hours may be earned in supervised research courses.

4393 Internship in Applied Communication (3-6)

Prerequisites: Senior standing, with a least 12 hours of course work in Communication, consent of instructor; open to communication majors only. Advanced practical work in business and organizational communication, public relations, or campaign communication. Work must be done under the supervision of a working professional in consultation with a faculty member. Repeatable, but no more than six hours total credit may be earned in internship courses toward the 36-hour minimum required for the degree.

6400 Seminar in Communication Theory (3)

Prerequisites: Graduate Standing. Examination of the theoretical, methodological, and philosophy of science issues in the discipline of communication. Examines general, micro, contextual, and interdisciplinary (symbiotic) communication theories. Required of all graduate communication students. (Core Course)

6405 Introduction to Communication Research Methods (3)

Prerequisites: Graduate Standing. Concerns the logic of scientific inquiry including the discovery, counting, and analysis of material, social, and symbolic facts, and reviews research methods guided by general, micro and contextual communication theories. Provides an orientation to graduate research including proposal development for thesis, internship and paper requirements and includes a theory-based research project of the student's choice. Required of all graduate communication students. (Core Course)

6406 Introduction to Communication Education Research (3)

Prerequisites: Graduate Standing. The development of educational communication research as a social scientific field. Critical evaluation of techniques and problem selection. Emphasis on the function of communication education concept formation and theory.

6411 Seminar in Mass Communication (3)

Examines the communication research literature pertaining to media planning, content, and effects. A broad range of media forms and possible effects are considered.

6431 Seminar in Organizational Communication (3)

Prerequisites: Graduate Standing. Explores communication theories and topics related to organizational, institutional, and social system contexts and reviews the communication literature on behavior in organizations. Emphasizes a case study approach to the communication strategies used by agencies and corporations. (Core course)

6435 Seminar in Advanced Applied Communication (3)

Prerequisites: Graduate Standing. Examines the logic and forms of communication inquiry in solving client-centered problems. Topics include audience ratings and segmentation, targeting, applied and basic research paradigms and approaches to grounding theory. Reviews the use of research by agencies, campaigns and organizations. Includes a team research project. (Core Course)

6454 Seminar in Communication Systems and Technologies (3)

Prerequisites: Graduate Standing. Examines innovation in modern communications technologies, their impact on society, and their contribution to the information revolution.

6490 Directed Readings in Communication (1-10)

Prerequisites: Graduate Standing. Individual research on a problem defined by the graduate student and the faculty member in conference. May be repeated once with the consent of the departmental graduate faculty.

6491 Supervised Research in Communication (1-3)

Prerequisites: Graduate Standing, Special Consent
 Collaborative research with a faculty member on a communication topic of mutual interest. May be repeated up to 10 hours.

6492 Practicum in Computer-Mediated Communication (1-3)

Prerequisites: Graduate Standing, Special Consent
 Collaborative research with a faculty member on a communication topic of mutual interest. May be repeated up to 6 hours.

6495 Seminar in Special Topics in Communication (3-9)

Prerequisites: Graduate Standing. Selected topics in the study of communication. Review of the communication theory and methods appropriate to the topic. The course includes a research project. May be repeated if the topic is different.

6498 Thesis Research and Preparation (1-10)

Prerequisites: Graduate standing. Individual research for and preparation of the graduate thesis.

6499 Graduate Internship (3-6)

Prerequisites: Graduate standing and approval of graduate coordinator. Individual on-site internship in organizational or mass communication setting.

The following courses have been moved to Media Studies:

Original	Course #	Course Title
COMM	1065	Introduction to Information Technology
COMM	1070	Introduction to Cinema
COMM	1108	Advertising Copywriting
COMM	1110	Introduction to Radio and Television Broadcasting
COMM	1113	Basic Television Studio Production
COMM	1114	Radio Production I
COMM	1118	Radio and Television Announcing
COMM	1196	Practicum in Radio
COMM	1197	Practicum in Television/Film
COMM	2210	Television Production I
COMM	2212	Broadcast Writing and Reporting
COMM	2215	Radio Production II
COMM	2216	Radio News
COMM	2217	Script Writing for Business and Industry
COMM	2118	Public Policy in Telecommunication
COMM	2119	Promotion, Publicity, and Advertising in Broadcasting
COMM	2228	Public Relations Writing
COMM	2256	International Communication
COMM	3214	News Writing
COMM	3310	Television Production II
COMM	3311	Broadcast Management
COMM	3313	Advanced Video Editing
COMM	3316	Television News
COMM	3317	Radio and Recording Industry
COMM	3334	Advertising Media Planning
COMM	3350	Mass communication History
COMM	3354	Comparative Telecommunication Systems
COMM	3355	Media Law and Regulation
COMM	3360	Health Communication
COMM	3370	Documentary Film
COMM	3394	Internship In Journalism
COMM	3395	Special Topics in communication
COMM	3396	Internship in Radio
COMM	3397	Internship in Television/Film
COMM	4357	Media Ethics

Department of Music

Faculty

James Richards, Chair, Department of Music, Professor
Ph.D., University of Rochester, Eastman School of Music
Gearoid O'hAllmhurain, Jefferson Smurfit
Professor of Irish Studies*
Ph.D., The Queen's University of Belfast
Robert Nordman, E. Desmond Lee, Professor of Music
Education
M.M., Saint Louis Conservatory of Music
Diane Toulaitos, Curators' Professor
Ph.D., Ohio State University
Douglas Turpin, E. Desmond Lee
Professor Emeritus of Music Education
D.Ed., Washington University
Fred Willman, Curators' Teaching Professor
Ph.D., University of North Dakota
Barbara Harbach, Professor
D.M.A., University of Rochester, Eastman School of Music
John Hylton, Professor and Dean, College of Fine Arts and
Communication
D.Ed., Penn State University
Kenneth E. Miller, Professor Emeritus
Ph.D., Northwestern University
Evelyn Mitchell, Professor Emerita
Arnold Perris, Professor Emeritus
Ph.D., Northwestern University
Robert J. Ray, Professor
B.M., Northwestern University
Kurt S. Baldwin, Associate Professor,
Arianna String Quartet
M.M., New England Conservatory of Music
David Gillham, Associate Professor,
Arianna String Quartet
M.M. Peabody Conservatory
James E. Henry, Associate Professor
Ph.D., Washington University
John McGrosso, Associate Professor,
Arianna String Quartet
M.M., Juilliard School of Music
Joanna Mendoza, Associate Professor,
Arianna String Quartet
M.M., Juilliard School of Music
Leonard Ott, Associate Professor
Ph.D., Michigan State University
Wm. Thomas Walker, Associate Professor and Dean,
Continuing Education and Outreach
D.A., University of Northern Colorado
Gary Brandes, Assistant Professor
M.M., University of Missouri-Columbia
Stella Markou, Assistant Professor
M.M., Cleveland Institute of Music
William Hammond, Teaching Associate Professor (Music
History and Literature)
D.Ed. Boston University

Alla Voskoboynikova, Teaching Associate Professor
(Piano)
M.M., Gnessins Academy of Music-Moscow, Russia
James Widner, Teaching Associate Professor,
(Jazz Studies)
M.A., Memphis State University
Billie Jo Derham, Teaching Assistant Professor (Piano)
M.M., Southern Illinois University-Edwardsville
Matthew Henry, Teaching Assistant Professor,
(Percussion)
M.M., Webster University
William Hammond, Adjunct Associate Professor (Music
History and Literature)
D.Ed. Boston University
Kathryn Haggans, Adjunct Associate Professor (Voice)
Ph.D., University of Arizona
Aurelia Hartenberger, Adjunct Associate Professor (Music
Education)
Ed.D., Washington University
Carol Koch, Adjunct Senior Lecturer (Music Education and
Piano)
M.M.E., University of Missouri-St. Louis
Tod Bowermaster, Adjunct Lecturer (French Horn)
B.M., Northwestern University
Kimberly Cowell, Adjunct Lecturer, (Music Education)
M.M., University of Missouri-St. Louis
Ann Homann, Adjunct Lecturer (Oboe)
M.M., St. Louis Conservatory of Music
Hugh Jones, Adjunct Lecturer (Jazz Studies)
M.M., Southern Illinois University at Edwardsville
Joseph Kaminsky, Adjunct Lecturer (String Pedagogy)
M.M., Southern Illinois University-Edwardsville
Paula Kasica, Adjunct Lecturer (Flute)
B.M., St. Louis Conservatory of Music
Kenneth W. Kehner, Adjunct Lecturer (Jazz Piano)
B.M., Truman State University
Stephen Morton, Adjunct Lecturer (Voice)
M.M., University of Tennessee
Robert Mottl, Adjunct Lecturer (Bassoon)
M.M., Indiana University
Gerry Pagano, Adjunct Lecturer (Trombone, Euphonium,
Tuba)
M.M., Juilliard School of Music
Alan Rosenkoetter, Adjunct Lecturer (Guitar)
B.S., Washington University
Henry Smith, Adjunct Lecturer (Saxophone and Jazz)
B.M., University of Texas
John Smith, Adjunct Lecturer (Music Education)
M.M., University of Oklahoma
Sue Stubbs, Adjunct Lecturer (Double Bass)
M.M., University of Missouri-Columbia
Lorenzo Trujillo, Adjunct Lecturer (Trumpet and Jazz)
D.M.A., University of California-Los Angeles
Miles Vandiver, Adjunct Lecturer (Jazz Percussion)
B.A., Southern Illinois University-Edwardsville
Jeanine York-Garesche, Adjunct Lecturer (Clarinet)
M.M., St. Louis Conservatory of Music

Susan Werner, Adjunct Lecturer (Voice)
M.M., University of Illinois-Champaign-Urbana
Mindy Gilkey, Specialist (Piano)
M.M., University of Oregon
Meiko Hironaka-Bergt, Specialist (Piano)
M.M. Toho Academy of Music
Deborah Mihok, Specialist (Piano)
B.M.E., University of Missouri-St. Louis
Vera Parkin, Specialist (Piano)
M.M., Southern Illinois University at Edwardsville
Donna Pyron, Specialist (Piano)
B.M., University of Missouri-Columbia
Sharon Tash, Specialist (Piano)
B.A., University of Missouri-St. Louis

Music faculty members have received recognition for distinguished achievements in conducting, composition, and performance. The faculty is also recognized for research in musicology and music education. Part-time applied music lecturers are professional musicians.

The Department of Music is accredited by the National Association of Schools of Music.

Performing Ensembles

Membership in Music Department performing ensembles (choral, orchestral, concert and pep band, jazz, chamber, etc.) is open to University of Missouri-St. Louis students in all majors and minors. Admission to most ensembles is by audition (consent of the instructor). Music 1400, University Chorus, is open to all university students without audition.

General Information

Degrees and Areas of Concentration

The Department of Music offers programs of study leading to the B.M. degree in music education (and state teaching certification in grades K-12); the B.M. degree with an emphasis in performance; the B.M. degree with elective studies in business; and the B.A. degree in music.

Instruction in piano, organ, voice, and all band and orchestral instruments is given by full-time faculty and part-time professional musicians, some of whom are members of the St. Louis Symphony Orchestra. Faculty recitals are regularly scheduled.

Music Minors Three minors in music are available: a minor in music; a minor in music education (choral/vocal, grades K-9); and a minor in jazz studies.

Facilities The Department's facilities, classrooms, studios, practice rooms, and listening labs are located in the Music Building. Rehearsal rooms are in the Villa.

Ensembles Fourteen performing ensembles are open to all by audition with credit optional:

1400, University Chorus
1410, University Singers

1500, University Orchestra
1520, University Band
1530, University Wind Ensemble
1541, Chamber Ensemble Brass
1542, Jazz Combo
1543, Chamber Ensemble Percussion
1544, Chamber Ensemble Strings
1545, Chamber Ensemble Voice
1546, Chamber Ensemble Woodwind
1550, Jazz Ensemble
1560, Opera Workshop
1600, Advanced Opera Workshop

Each year more than 100 recitals and concerts are presented. Additional information may be obtained by contacting the Department of Music: (314) 516-5980, website <http://www.umsl.edu/~music/>

Undergraduate Studies

General Education Requirements

General education requirements apply to all majors, except students in the B.M. with elective studies in business and B.M. in music education degree programs who are not required to take a foreign language. Courses required for degree programs may not be taken on a satisfactory/unsatisfactory basis. Students must receive at least a C- in each music course and maintain an overall GPA of 2.5 in all music courses to meet degree requirements.

Students may complete any number of hours of applied music (private lesson) toward a degree. Non-music majors may complete no more than 8 hours in music-performing organizations (Music 1400, University Chorus; 1410, University Singers; 1500, University Orchestra; 1520, University Band, et. seq.) toward graduation, including credit transferred. Courses in applied music (private lessons and performing organizations) do not fulfill the humanities general education requirement. Department courses, which meet the non-Euro-American study requirement, are Music 1090, Non-Western Music I, and Music 1100, Non-Western Music II.

Learning Outcomes (General Education)

- Students will demonstrate enhanced aesthetic appreciation and discrimination.
- Students will demonstrate knowledge of a wide range of world music.
- Students will demonstrate knowledge of relationships among the arts, societal influences on music and musical influences on society.

Degree Requirements

Admission to all music degree programs is by audition and interview to demonstrate musical aptitude and potential, moderate technical proficiency, and seriousness in selecting music as a four-year course of study. In addition to the applied music audition, placement examinations in music theory and music history may be required to confirm

students' prior experience in these areas. Auditions are scheduled from January to May for the fall semester; a limited number are held in December for the spring/winter semester. Students in applied music must pass a junior-standing examination to confirm their level of performance skills for enrollment in Music 3440 – 3459 or Music 4440 – 4459. This examination is usually taken at the same time as the applied music jury for the fourth semester of enrollment in Music 1440 - 1459.

Evidence of sound musicianship, a close acquaintance with an appropriate portion of musical literature, and the ability to bring it to actual performance are required for graduation in all music degree programs. Students in the bachelor of music-performance emphasis fulfill this requirement with junior and senior recitals. Those in all other degree programs must satisfy the requirement by participating in three regularly scheduled student recitals during the last two semesters of applied music study, or by performing for a special jury of faculty members. The faculty may invite students who are not in the bachelor of music-performance emphasis program to give public senior recitals with the recommendation of the applied music instructor.

Music majors are required to enroll in an approved ensemble (University Band, University Singers, University Chorus, or University Orchestra), to study one applied area progressively each semester, and to enroll in the appropriate pedagogy and literature seminar each semester of the degree program. (Music education majors are exempt from these requirements during the student teaching semester.) The following specific ensemble enrollments, depending upon the applied music area, are required:

Wind and percussion students—University Band; string students--University Orchestra; voice students --University Singers (or by special permission, University Chorus); keyboard and guitar students--any approved ensemble, but those in the bachelor of music in music education program must enroll in an ensemble compatible with the teaching certification they are pursuing. Instrumental students may be required to participate in additional ensembles to enhance their musical development. Majors are required to appear in performance at the department's discretion and to attend a prescribed number of departmental recitals. Non-keyboard players are required to pass an exam in piano proficiency: Music 2180, Intermediate Piano Proficiency, or equivalent for instrumentalists, or Music 3290, Intermediate Piano Proficiency, or equivalent for vocalists.

The music department may require students to pass a placement test in order to enroll in the next level course, provided this or an equivalent test is administered to all students seeking to enroll in that course.

Core Curriculum

The following core courses are required for all music majors:

Music Theory

1301, Theory of Music I
1302, Aural Training I
1311, Theory of Music II
1312, Aural Training II
2301, Theory of Music III
2302, Aural Training III
2311, Theory of Music IV
2312, Aural Training IV
3410, Orchestration

Piano Proficiency

1140, Piano Proficiency
1150, Piano Proficiency
2160, Intermediate Piano Proficiency
2180, Intermediate Piano Proficiency

Music History and Literature

1010, History of Western Music I
1020, History of Western Music II
and at least one upper level history course 4000 – 4270.

Applied Music

1460, 3460, 4460, Seminar in Pedagogy and Literature

In addition to the core curriculum, students must fulfill the requirements for the specific degree program or emphasis area as listed below:

Learning Outcomes (All Music Degrees)

- Students will demonstrate the solo and ensemble performance skills to become a professional musician.
- Students will demonstrate knowledge in music theory, music history, music literature, to become a professional musician.
- Students will demonstrate the ability to speak and write clearly and effectively about music.

Bachelor of Arts in Music

In addition to the required core curriculum, candidates must complete the following:

1090, Non-Western Music I, or
1100, Non-Western Music II
2510, Conducting I
3920, Senior Research

Applied Area

8 credit hours of private lessons

Ensemble

4 hours maximum credit

Foreign Language

Candidates for the B.A. degree in Music are required to complete 13 credit hours or the equivalent in proficiency in one foreign language. Please see additional information

about the Foreign Language requirement in the College of Fine Arts and Communication "Specific Baccalaureate Degree Requirements."

Bachelor of Music in Music Education

In addition to the required music core curriculum, candidates must complete the following:

General Education Requirements

At least one course from two of the following fields: music (excluding applied music), art, foreign language, Western and Non-Western cultures, philosophy, literature, classical studies, and theatre and drama.

Communication Skills

At least **two** courses in English composition and **one** in oral communications.

Social Studies

Courses in American history, American government and general psychology.

Natural Science

One course in physical **or** earth science; one course in a biological science. At least **one** of these courses must have a **laboratory component**.

Mathematics

One college-level mathematics course. (Note: All of the courses in the General Education Requirement Area must be a minimum of two semester hours.)

Applied Area

7 credit hours of private lessons

Practicum

2510, Conducting I

Instrumental Certification

1250, 1260, 1270, 1280, Instrumental Techniques
2610, Elementary School Instrumental Literature Laboratory
3521, Conducting II – Instrumental
3620, Junior – Senior High School Instrumental Literature Laboratory

Vocal Certification

1250, Singer's Diction: English, Italian and German
1260, Singer's Diction: Latin, French, and Spanish
2611, Elementary School Choral Literature Laboratory
3190, Intermediate Piano Proficiency
3290, Intermediate Piano Proficiency
3420, Choral Arranging
3430, Instrumentation and Score Technique (in lieu of Music 3410)
3522, Conducting II – Choral
3621, Junior – Senior High School Choral Literature Laboratory

For vocal certification students whose applied area is not voice, the following course is also required:
1240, Intermediate Vocal Techniques

Ensemble 4 hours maximum credit

Curriculum and Methods of Teaching

***3570**, Curriculum and Methods of Teaching Elementary School Music
***3670**, Philosophic and Practical Foundations of the Secondary Music Education Curriculum

Instrumental Certification

***3680**, Curriculum and Methods of Teaching Instrumental Music I
***3700**, Curriculum and Methods of Teaching Instrumental Music II

Vocal Certification

***3690**, Curriculum and Methods of Teaching Middle School/Junior High School General Music
***3710**, Curriculum and Methods of Teaching Secondary Choral Music

***Must be taken in residence** before enrolling in Secondary Education 3293 and Secondary Education 3294.

Proficiency Exam

Students working toward certification in choral/vocal or instrumental music K-12 are required to pass a proficiency examination before admission to student teaching in music, usually before or during the sixth semester of their program.

Professional Education and Student Teaching

Level I Courses:

TCH ED 2210, Introduction to Teaching
TCH ED 2211, Introduction to Schools
TCH ED 2212, Introduction to Learners

Level II Courses:

TCH ED 3310, Introduction to Instructional Methodology
TCH ED 3312, Psychology of Teaching and Learning
TCH ED 3313, The Psychology and Education of Exceptional Individuals
SEC ED 4391, Teaching Reading in Secondary School Content Area

Level III Courses:

SEC ED 3293, Student Teaching in Music, K-6
SEC ED 3294, Student Teaching in Music 7-12

Learning Outcomes (Music Education)

- Students will demonstrate the solo and ensemble performance skills to become a professional music educator.
- Students will demonstrate knowledge in music theory, music history, music literature, to become a professional music educator.

- Students will demonstrate pedagogical skills and knowledge of resources to become a professional music educator.
- Students will demonstrate the ability to speak and write clearly and effectively about music.

Bachelor of Music with an Emphasis in Performance

In addition to the required core curriculum, candidates must complete the following:

1090, Non-Western Music I, or
1100, Non-Western Music II
1560, Piano Pedagogy (Keyboard students only)
2510, Conducting I
3110, Analysis of Twentieth-Century Techniques
3120, Tonal Counterpoint
3190, Intermediate Piano Proficiency (voice majors only)
3290, Intermediate Piano Proficiency (voice majors only)
3521 or 3522, Conducting II
3920, Senior Research

Music History and Literature

An additional upper level course is required 4000-4270.

Applied Area

12 credit hours of Applied Music, including 8 credit hours at the Music 4440-4459 level (junior and senior recitals required)

Students in Applied Music must pass a junior standing exam to confirm their level of performance skills for enrollment in Music 4440-4459.

Ensemble

Participation required as follows:

Large Ensemble 4 hours maximum credit
Chamber Ensemble/Accompanying 6 hours

Foreign Language

Candidates pursuing this emphasis area with an applied area in voice must complete two semesters of one foreign language selected from French, German, or Italian.

Bachelor of Music with Elective Studies in Business

In addition to the required core curriculum, candidates must complete the following:

Applied Area

8 credit hours of applied music

Music History and Literature:

An additional upper 4000 – 4459 level course is required.

1090, Non-Western Music I, or
1100, Non-Western Music II

Practicum

2510, Conducting I

Ensemble

4 hours maximum credit

Internship

4920, Internship (replaces Music 3920 Senior Research in Core Curriculum)

English

One of the following English courses is required:

3100, Advanced Expository Writing
3120, Business Writing
3130, Technical Writing

Business Administration

The following courses in business administration are required:

2400, Fundamentals of Financial Accounting
2410, Managerial Accounting
3600, Management as a Behavioral Science I
3700, Basic Marketing

Two courses selected from the following list must also be taken:

1800, Computers and Information Systems
2900, Legal Environment of Business
3270, Management of Promotion
3441, Income Taxes
3500, Financial Management
3611, Advanced Management and Organizational Behavior
3621, Human Resource Management
3622, Industrial and Labor Relations
3710, Consumer Behavior
3900, Business Law: Contracts, Sales, Secured Transactions, Bankruptcy

Note:

The following courses fulfill general education requirements and are prerequisites to the required business administration courses:

PSYCH 1003, General Psychology, or
SOC 1010, Introduction to Sociology
ECON 1001, Principles of Microeconomics

Curricula for Minors

Minor in Music

Candidates must complete the following courses (26 hours):

Music Theory

1301, Theory of Music I
1302, Aural Training I
1311, Theory of Music II
1312, Aural Training II

Music History and Literature

1010, History of Western Music I
1020, History of Western Music II

Applied Area

4 credit hours of private lessons

Ensemble

2 credit hours (4 hours maximum credit)

Six additional credit hours to be chosen from courses such as the following:

2160, Intermediate Piano Proficiency (Prerequisite: Music 1150)

2180, Intermediate Piano Proficiency

2301, Theory of Music III

2302, Aural Training III

2311, Theory of Music IV

2312, Aural Training IV

3410, Orchestration

Any 4200-level music history and literature course

Music education methods courses and instrumental techniques courses may not be taken to complete this minor.

Non-keyboard players are required to pass an exam of piano proficiency Music 1150 or equivalent.

A GPA of 2.5 for all music hours is required to complete this minor.

Minor in Music Education

(choral/vocal, grades K-9)

The minor in music education is designed to provide a second classification area for students enrolled in other education programs that lead to initial teaching certification. Candidates must complete the following courses (41 hours):

Music Theory

1301, Theory of Music I

1302, Aural Training I

1311, Theory of Music II

1312, Aural Training II

Music History and Literature

1010, History of Western Music I

1020, History of Western Music II

Music Education

3570, Curriculum and Methods of Teaching Elementary School Music*

3670, Philosophic and Practical Foundations of the Secondary Music Education Curriculum*

3690, Curriculum and Methods of Teaching Middle School/Junior High School General Music*

*Elementary education majors will omit Music 3770 from their regular elementary program to take these courses. Also required, as applicable, is SEC ED 4399, Student Teaching.

Practicum

1140/1150, Piano Proficiency

2160/2180, Intermediate Piano Proficiency

2510, Conducting I

2611, Elementary School Choral Literature Laboratory

3621, Junior-Senior High School Choral Literature Laboratory

Ensemble

1400/1410, University Chorus or University Singers

Applied Music, voice (at least 2 hours must be private rather than class voice)

The student must receive at least a C- in each music course and maintain a 2.5 GPA in all music courses (chorus/singers is not included in the GPA).

Minor in Jazz Studies

Candidates must complete 31 credit hours from the following:

Music Theory

1301, Theory of Music I

1302, Aural Training I

1311, Theory of Music II

1312, Aural Training II

1320, Theory of Jazz

Music History and Literature

1020, History of Western Music II

1070, Introduction to Jazz

Applied Area 4 credit hours of private lessons

Jazz Improvisation

1200, Jazz Improvisation Laboratory (2 credit hours/Music 1200 repeated)

Piano Proficiency

1140/1150, Piano Proficiency

2160, Intermediate Piano Proficiency

2170, Jazz Keyboard Harmony

Ensemble

2 credit hours minimum, to be selected from:

1542, Jazz Combo

1545, Chamber Ensemble Voice

1550, Jazz Ensemble

Graduate Study

Master of Music Education

The master of music education degree is designed to enable music specialists in grades K-12 to pursue continued professional growth in an emphasis area of their choice: choral, general music, instrumental, or music technology.

Admission Requirements

Admission to the program requires a bachelor of music in music education (or equivalent) degree, admission to the Graduate School, and three letters of recommendation. A written examination in music education (including applications of music history and music theory/ear-training) will be taken during the first semester or term of enrollment in the program for advising purposes and to identify the possible need for review in the areas of music theory and history.

The program requires completion of 32 hours of graduate credit, 22 of which must be earned in residence.

Required Courses and Options:

Each candidate will choose one of the following emphasis areas:

Choral music education
Instrumental music education
General music education
Music education and technology

The minimum 32-hour program includes the following requirements.

Major Area (9 credit hours)

5810, Foundations of Music Education (3)
5910, Music Education Research (3)
5990, Master's Project in Music Education (3)

Advanced Methods (3 credits from the following)

5510, Graduate Instrumental Methods (3)
5610, Graduate Choral Methods (3)
5710, General Music: A Model for Multi-Faceted Musical Learning (3)

Choose 9 credits from the following:

5010, Studies in Style and Performance (3)
5020, Choral Literature (3)
5030, Band Literature (3)
5040, Orchestra Literature (3)
5110, Scoring and Arranging (3)
5210, Advanced Conducting (3)
5620, Guitar in the Classroom (3)
5750, Microcomputer Applications in Music Education (3)
5760, Microcomputer Assisted Instruction Curriculum Development in Music (3)
5770, Graduate Microcomputer Applications in Music (3)
5920, Psychology of Music (3)

Cognate in Education

Choose one 3-credit curriculum course such as:

SEC ED 6415, The Secondary School Curriculum (3)
ELE ED 6422, Curriculum Construction in Elementary Schools (3)

Choose one other 3-credit education course such as:

ED REM 5730, Educational Statistics (3)
ED FND 6421, Philosophy of Education (3)

SEC ED 6425, Secondary School Supervision (3)
ELE ED 6425, Elementary School Supervision (3)
ED REM 6707, Classroom Testing and Measurement (3)
ED REM 6710, Educational Research Methods (3)
Electives

Choose 5 credits from elective courses such as:

4010, Marching Band Techniques (3)
5020, Choral Literature (3)
5030, Band Literature (3)
5040, Orchestra Literature (3)
5060, Graduate Workshop in Music Education (1-3)
5070, Techniques and Literature for the Jazz Ensemble (3)
5110, Scoring and Arranging (3)
5120, Advanced Composition Techniques (3)
5130, Teaching Music Theory in the High School (3)
5210, Graduate Conducting (3)
5310, Graduate Chamber Ensemble (0)
ED TECH 5340, Selection and Utilization Education Media (3)
5430, Special Applied Studies (1)
5440, Graduate Applied Studies (1)
5490, Graduate Ensemble (1)
5510, Graduate Instrumental Methods (3)
5520, Instrumental Music Administration (3)
5610, Graduate Choral Methods (3)
5620, Guitar in the Classroom (3)
5650, Music Theatre in the School (3)
5710, General Music: A Model for Multi-Faceted Musical Learning (3)
5720, Electronic Music Techniques for Teachers (3)
5730, Individualizing Music Instruction (3)
5740, Techniques of Group Keyboard Instruction (3)
5750, Microcomputer Applications in Music Education (3)
5760, Microcomputer Assisted Instruction: Curriculum Development in Music
5770, Graduate Microcomputer Applications in Music (3)
5800, Musical Acoustics (3)
5820, School Music Administration and Supervision (3)
5830, Contemporary Music Education (3)
5840, Problems of Urban Music Education (3)
5920, Psychology of Music (3)
5950, Special Problems in Music Education (3)
SPC ED 6412, Psychology of Exceptional Children (3)
SEC ED 6414, Teaching the Gifted/Talented in the Secondary School (3)
SEC ED 6418, The Junior High/Middle School (3)
SEC ED 6427, Supervision of Clinical Experiences in Teacher Education (3)
SEC ED 6429, The Department Head (3)
ED REM 6710, Educational Research Methods (3)

Career Outlook

Undergraduate

A music degree builds the foundation for a career in professional performance, for teaching in a school or private studio or for serving as a church music director. A music

degree may also prepare one for positions in the music industry (recording, publishing, radio programming, manufacturing, or music retail). A trained artistic mind can also be valuable in the fields of advertising, public relations, and consumer services.

A number of UMSL music graduates have been readily accepted into outstanding graduate programs, including our own Master of Music Education degree program. Many are pursuing successful careers in music education, business, and industry, or as professional performers.

Graduate

Many graduate students in music education will already hold full-time music teaching positions. A graduate degree in music education allows for continued professional growth. Music specialists may refine their teaching expertise, add to their understanding and knowledge about music and educational processes, become more specialized in a specific emphasis area of music education (choral, instrumental, general music or music technology), or any combination of these professional growth areas.

Graduate-level work in music education is often required to renew a teacher's certificate or to satisfy professional growth requirements specified by an employing school or school district or to advance to new positions within the field of music education.

Course Descriptions

Prerequisites may be waived by consent of the department. Students who have earned 24 or more semester hours of credit at any accredited post-secondary institutions(s) before the start of the fall 2002 semester must meet the general education requirements stipulated in the UM-St Louis 2001-2002 Bulletin. The following courses fulfill the Humanities breadth of study requirements as described in that Bulletin: 1001, 1010, 1020, 1050, 1060, 1070, 1080, 1090, 1100, 1110, 1301, 1311, 1320, 2301, 2311, 3770, 3920, 4000, 4230, 4240, 4250, 4260, 5750.

The following music history courses satisfy the Cultural Diversity requirement: MUSIC 1090 and 1100.

Applied Music

1410 – 1429 Secondary Applied Music (1)

Prerequisites: By audition and consent of department. Courses are offered in the following areas: 1410-bassoon; 1411-clarinet; 1412-classical guitar; 1413-euphonium; 1414-flute; 1415-French horn; 1416-harp; 1417-oboe; 1418-organ; 1419-percussion; 1420-piano; 1421-saxophone; 1422-trombone; 1423-trumpet; 1424-tuba; 1425-violin; 1426-violoncello; 1427-violoncello; 1428-string bass; 1429-voice. Not applicable to the applied music requirement for music majors or music minors. May be repeated for credit.

1430 Secondary Applied Music: Jazz Studies (1)

Prerequisites: By audition and consent of department. Individual instruction in jazz performance and literature on designated instrument. Not applicable to applied music requirement for music major or music minor degrees. May be repeated for credit.

1440 – 1459 Applied Music (1)

Prerequisites: By audition and consent of department. Courses offered in the following areas: 1440- bassoon; 1441-clarinet; 1442-classical guitar; 1443-euphonium; 1444-flute; 1445-French horn; 1446-harp; 1447-oboe; 1448-organ; 1449-percussion; 1450-piano; 1451-saxophone; 1452-trombone; 1453-trumpet; 1454-tuba; 1455-violin; 1456-violoncello; 1457-violoncello; 1458-string bass; 1459-voice. May be repeated, up to 4 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar Music 1460.

1460 Seminar in Pedagogy and Literature (0)

Prerequisites: Concurrent registration with parallel Applied Music course. Seminars are offered in pedagogy and literature for all areas of Applied Music. May be taken on a satisfactory/unsatisfactory grading basis.

3440 – 3459 Applied Music (1)

Prerequisite: The completion of Junior Standing Exam in major applied area. Courses offered in the following areas: 3440-bassoon; 3441-clarinet; 3442-classical guitar; 3443-euphonium; 3444- flute; 3445-French horn; 3446-harp; 3447-oboe; 3448-organ; 3449-percussion; 3450- piano; 3451-saxophone; 3452-trombone; 3453-trumpet; 3454-tuba; 3455-violin; 3456-violoncello; 3457-violoncello; 3458-string bass; 3459-voice. May be repeated, up to 6 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar MUSIC 3460.

3460 Seminar in Pedagogy and Literature (0)

Prerequisite: Concurrent registration with parallel Applied Music course. Seminars in pedagogy and literature are offered for all areas of Applied Music. May be taken on satisfactory/unsatisfactory grading basis.

4440 – 4459 Applied Music (2)

Prerequisites: Completion of Junior Standing Exam in major applied area and admission to Performance Degree Program. Courses offered in the following areas: 4440- bassoon; 4441-clarinet; 4442-classical guitar; 4443- euphonium; 4444-flute; 4445-French horn; 4446-harp; 4447-oboe; 4448-organ; 4449- percussion; 4450- piano; 4451-saxophone; 4452-trombone; 4453-trumpet; 4454- tuba; 4455-violin; 4456-violoncello; 4457-violoncello; 4458- string bass; 4459-voice. May be repeated up to 12 credit hours. Applied Music registration requires concurrent registration in a large ensemble and seminar MUSIC 4460.

4460 Seminar in Pedagogy and Literature (0)

Prerequisite: Concurrent registration with parallel Applied Music course. Seminars in pedagogy and literature offered

for all areas of Applied Music. May be taken on satisfactory/unsatisfactory basis.

4500 Honors Recital (2-4)

Prerequisites: Minimum of three semesters of applied music at the upper division level; completion of the required junior and/or senior degree recitals; permission of the applied music faculty. Preparation and public performance beyond the required degree recital(s) for undergraduate music programs. By approval of the applied music instructor, the Honors Recital may be a lecture-recital focusing on both the performance and the historical, analytical, and/or pedagogical aspects of selected literature, a public performance of a complete concerto or major solo work with orchestra or symphonic band, a major music theatre or opera role in a full production, a full chamber music recital, or other similar major performances.

5430 Special Applied Studies (1)

Prerequisites: Graduate standing in music and consent of department. Individual instruction in performance and literature of an instrument or instrumental family for pedagogical or review purposes in applied area other than student's primary performance study. No jury examination required. May be repeated for credit.

5440 Graduate Applied Music (1)

Prerequisites: Graduate standing in music and consent of department. Instruction offered in the following areas: bassoon, clarinet, classical guitar, euphonium, flute, French horn, harp, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, violin, viola, violoncello, string bass, and voice. May be repeated for credit.

Ensemble Performance

1399 Music Ensemble Registration (0)

Prerequisites: Consent of instructor. Study, preparation and performance of music ensemble literature. Concurrent registration in one or more of the following courses is required: Ensemble Performance 1400, 1410, 1500, 1520, 1530, 1541-1546, 1550, 1560, 1570, 4560, 5310, 5490.

1400 University Chorus (1)

Prerequisite: Consent of instructor. Preparation and performance of choral literature.

1410 The University Singers (1)

Prerequisite: Consent of instructor. Study and performance of music for vocal chamber ensemble.

1500 University Orchestra (1)

Prerequisite: Consent of instructor. Study, preparation, and performance of orchestral repertory.

1520 University Band (1)

Prerequisite: Consent of instructor. Study, preparation, and performance of music for the wind ensemble and band.

1530 University Wind Ensemble (1)

Prerequisite: Consent of instructor. Study, preparation, and performance of music for wind ensemble and chamber band.

1541-1546 Chamber Ensemble (1)

Prerequisite: Consent of instructor. Study, preparation, and performance of music for small ensembles: 1541-brass; 1542-jazz combo; 1543-percussion; 1544-strings; 1545-voice; 1546-woodwinds.

1550 Jazz Ensemble (1)

Prerequisite: Consent of instructor. Study, preparation, and performance of jazz music for big band.

1560 Opera Workshop (1)

Prerequisite: Consent of instructor. Instruction in movement, basic stage techniques, technical theater, repertory and performance techniques and preparation. May be repeated for credit.

1570 Music Theatre Ensemble (1)

Prerequisite: Consent of instructor. Course provides practical experience in vocal performance, acting, and stage movement/choreography through rehearsal and performance in Music, Theatre and Dance Department music theatre productions. Required of all cast members. Laboratory time will be scheduled and will include evening and weekend rehearsals and performances. May be repeated for credit.

4560 Advanced Opera Workshop (1)

Prerequisite: Consent of instructor. Instruction in movement, stage technique, technical theater, repertory, and performance based on advanced vocal skills. May be repeated for credit.

5310 Graduate Chamber Ensemble (1)

Prerequisite: Graduate standing in music and consent of department. Study and performance of traditional and nontraditional chamber literature.

5490 Graduate Ensemble (1)

Prerequisite: Graduate standing in music and consent of department. Study, preparation, and performance of ensemble literature from the choral, orchestral, or band/wind ensemble repertory. May be repeated for a total of four hours of credit.

Music Education

3570 Curriculum and Methods of Teaching Elementary School Music (3)

Same as ELE ED 3277. Prerequisites: Music 2311/2312 and Level I Education courses 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.

3670 Philosophic and Practical Foundations of the Secondary Music Education Curriculum (1)

Same as SEC ED 3275. Prerequisites: MUSIC 2311,2312, MUSIC 3570, ELE ED 3277 and Level I Education courses. Concurrent registration in MUSIC 3680/SEC ED 3576 and MUSIC 3700/SEC ED 3278 or MUSIC 3710/SEC ED 3279. 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.

3680 Curriculum and Methods of Teaching Instrumental Music I (2)

Same as SEC ED 3276. Prerequisites: MUSIC 2311,2312, 3410, 2510, 2610, Level I Education courses and two of the following: MUSIC 1250, 1260, 1270, and MUSIC 1280. Concurrent registration in MUSIC 3570/ ELE ED 3277. 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.

3690 Curriculum and Methods of Teaching Middle School/Junior High School General Music (2)

Same as SEC ED 3277. Prerequisites: MUSIC 2311, 2312, MUSIC 3570/ELE ED 3277, and Level I Education courses. Concurrent registration in MUSIC 3670/SEC ED 3275 and MUSIC 3710/SEC ED 3279. 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.

3700 Curriculum and Methods of Teaching Instrumental Music II (2)

Same as SEC ED 3278. Prerequisites: MUSIC 2311, 2312, 3521, 3620, MUSIC 3570/ELE ED 3277, MUSIC 3680/SEC ED 3276, Level I Education courses and three of the following: MUSIC 1250, MUSIC 1260, MUSIC 1270, MUSIC 1280. Concurrent registration in MUSIC 3670/SEC ED 3275. A continuation of MUSIC 3680/SEC ED 3276. Topics include large group rehearsal techniques, program development, administrative procedures, and evaluation. This course must be completed in residence.

3710 Curriculum and Methods of Teaching Secondary Choral Music (2)

Same as SEC ED 3279. Prerequisites: MUSIC 2311, 2312, MUSIC 3570/ELE ED 3277, and Level I Education courses. Concurrent registration in MUSIC 3670/SEC ED 3275 and MUSIC 3690/SEC ED 3277. 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.

3770 An Introduction to Music for the Elementary School Teacher (3)

Same as ELE ED 2177. An introduction to the elements of music and the expressive nature of music. Includes application of fundamentals to appropriate literature and activities for use with children in a classroom setting. This course will not apply toward requirements for a music major.

4000 Advanced Techniques in Music Education (1-2)

Prerequisite: A 3000 level music education course or permission of the department. Intensive study for advanced music education students and music teachers, emphasizing specialized techniques and innovative concepts. Topics to be announced. May be repeated for credit.

4010 Marching Band Techniques (3)

Prerequisite: Junior Standing . Techniques for organizing and training school marching bands. Content will include planning and charting shows, rehearsal problems, corps and traditional styles, and auxiliary units.

4060 Advanced Workshop in Music Education (1-5)

Prerequisite: Junior standing and consent of the instructor. An intensive variable-topic workshop in music education presenting knowledge and skills to supplement specific areas in existing courses.

5000 Directed Research in Music: Variable Topic (1-5)

Prerequisite: Consent of instructor. Directed independent research in music through readings, conferences, writings, and projects. This course may be repeated, but no more than 5 hours may be applied toward a degree.

5060 Graduate Workshop in Music Education (1-5)

Prerequisite: Graduate standing and consent of instructor. Intensive workshop in music education. Variable topics. To gain skills and knowledge in specific areas not readily available in existing courses.

5130 Teaching Music Theory in the High School (3)

Prerequisite: Graduate standing in music. A study of the Course content and pedagogical techniques for high school music theory courses.

5510 Graduate Instrumental Methods (3)

Prerequisite: Graduate standing in music. Development of objectives for instrumental programs and methods of achieving those objectives. Comprehensive musicianship through instrumental performance, analysis of instrumental literature, instrumental philosophies and methodologies, rehearsal organization, and recent research in instrumental music education will be discussed.

5610 Graduate Choral Methods (3)

Prerequisite: Graduate standing in music. Development of objectives for choral programs and methods of achieving those objectives. Comprehensive musicianship through choral performance, analysis of choral literature, the

changing voice, choral philosophies and methodologies, rehearsal organization, and recent research in choral music education will be discussed.

5620 Guitar in the Classroom (3)

Prerequisite: Graduate standing in music. A study of guitar instruction in grades 5-12 with a focus on curricular sequence that includes chords, strums and picking patterns essential for song accompaniment skill development. Current materials, suitable for upper elementary and secondary students will be explored.

5650 Music Theatre in the School (3)

Prerequisite: Graduate standing in music. Techniques appropriate for school musical productions. Aspects of production and planning, including makeup, staging, lighting, and costuming.

5710 General Music: A Model for Multifaceted Musical Learning (3)

Prerequisite: Graduate standing in music. An exploration of the general music class as a learning laboratory model designed to actively engage the learner in a series of comprehensive music learning experiences. Emphasizes techniques and materials that will motivate the nonperformance-oriented student.

5720 Electronic Music Techniques for Teachers (3)

Prerequisite: Graduate standing in music. Basic electronic music instruments, their operation and use as teaching tools. Materials and techniques suitable for use with students in both elementary and secondary school settings will be presented.

5730 Individualizing Music Instruction (3)

Prerequisite: Graduate standing in music. The development of learning strategies, materials, and evaluation techniques suitable for better accommodating the varying interests, abilities, and learning styles of individual students in music classes.

5750 Microcomputer Applications in Music Education (3)

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.

5760 Microcomputer-Assisted Instruction Curriculum Development in Music (3)

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.

5770 Graduate Microcomputer Applications in Music (3)

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.

5800 Musical Acoustics (3)

Prerequisite: Graduate standing in music. The acoustical properties of the human voice, acoustic and electronic musical instruments, rehearsal rooms and performance spaces. Applications for musicians/teachers in the choice, design and acoustical treatment of rehearsal/performance space, requirements and techniques for quality musical recordings and the use of acoustic principles in the design of original classroom musical instruments.

5810 Foundations of Music Education (3)

Prerequisite: Graduate standing in music. A study of the historical, philosophical, and psychological foundations of music education. Includes principles necessary for development, implementation, and evaluation of the total school music program.

5820 School Music Administration and Supervision (3)

Prerequisite: Graduate standing in music. Theory and practice of administration and supervision of school music programs.

5830 Contemporary Music Education (3)

Prerequisite: Graduate standing in music. A study of recent trends and issues in music education.

5840 Problems of Urban Music Education (3)

Prerequisite: Graduate standing in music. An analysis of current practices, problems, trends, and research involved in developing strategies for the improvement of music programs in inner-city schools.

5910 Music Education Research (3)

Prerequisite: Graduate standing in music. Applications of various approaches in defining and analyzing research problems in music education. Historical, experimental, descriptive, and philosophical research will be included.

5920 Psychology of Music (3)

Prerequisite: Graduate standing in music. A study of the effects of music on behavior. Tuning and temperament, psychoacoustics, measurement of musical behavior, aesthetic response to music, and functional music.

5950 Special Problems in Music Education (1-3)

Prerequisite: Graduate standing in music. Selected problems to meet the needs of the individual student.

5990 Master's Project in Music Education (3)

Prerequisite: Graduate standing in music. A project utilizing historical, experimental, philosophical, descriptive, or analytical research techniques. The project will include a written report.

Music History and Literature

1001 Introduction to Music (3) [V,H]

A historically oriented study of art music, its styles, and forms from the Baroque period to the present day. This course will not apply toward requirements for a music major.

1010 History of Western Music I (3)

Prerequisite: MUSIC 1301/1302 or consent of department. A general survey of the history of Western music. Includes the evolution and development of styles, forms, and their social setting. This meets the General Education requirements for Humanities and Fine Arts Knowledge and Valuing Skills.

1020 History of Western Music II (3)

Prerequisite: MUSIC 1301/1302 or consent of department. A continuation of MUSIC 1010. This meets the General Education requirements for Humanities and Fine Arts Knowledge and Valuing Skills.

1060 Introduction to African-American Music (3) [H]

A survey of the African-American musical heritage from its African origins through its role and development in twentieth-century American society. All genres will be discussed, including African-American composers who wrote in the European tradition. This course will not apply toward requirements for a music major or minor.

1070 Introduction to Jazz (3) [H]

A survey course that examines the musical, historical, and social aspects of the subject. This course will not count toward requirements for a music major.

1080 Introduction to Irish Traditional Music (3) [V,H]

This music appreciation course will survey the rich tapestry of Irish traditional music, song and dance. Particular attention will be given to the cultural history of the traditional music maker in Irish society, as well as among the constituent communities of the Irish Diaspora in Europe and North America. The course will introduce students to the instruments, performance settings and regional styles of Irish traditional music. Using field recordings and archive materials collected in Ireland and North America, it will also focus on celebrated folk performers of the past and present, and evaluate the impact of contemporary media on their ancient, yet evolving, musical genre. No prior experience of Irish traditional music is necessary to pursue this course.

1090 Non-Western Music I (3) [CD,V,H]

The music of Oceania; folk and classical music and dance of East Asia, Tibet and Southeast Asia; the influence of

Buddhism, Islam, and Western acculturation on the functions of music in these societies.

1110 Introduction to Irish Traditional Music in North America (3) [V,H]

Will examine the cultural history of Irish traditional music and music makers in North America since the end of the eighteenth century. Drawing on a diversity of ethnomusicological sources, will evaluate the contribution of Irish musicians, singers and dancers to the growth of American popular culture in the nineteenth and twentieth centuries. Will explore the role of Irish musicians in rural communities from Newfoundland and Quebec to the Mid Western States and California. In reviewing the music history of the Irish Diaspora in North America, will compare and contrast historical recordings of Irish music made in the 1920s with those produced by modern masters of Irish music. No prior knowledge of Irish traditional music is necessary to pursue this course.

1175 Arts and Ideas (3)

Same as ART and ART HS 1175, ENGL 1175, HIST 1175, PHIL 1175, TH DAN 1175. An interdisciplinary course tied to the semester's offerings at the Blanche Touhill Performing Arts Center as well as other events on campus featuring the visual arts, literature, music, and film. Each semester the course will provide background on the arts in general and will critically examine particular performances and offerings. Special themes for each semester will be selected once the Touhill schedule is in place. Students will be expected to attend 6-8 performances or exhibitions. Can be repeated once for credit.

4000 Directed Studies: Variable Topic (1-5)

Prerequisite: Consent of department. Directed independent study of selected topics in music. May be repeated, if topic is substantially different but no more than 5 hours may be applied toward a degree.

4220 Music of the Renaissance (3)

Prerequisite: M H & L 1010 or consent of department. A study of the theoretical and practical impact of humanism on music, musicians, and musical thought from 1450 to 1600. Sacred and secular music; the rise of an instrumental idiom.

4230 Music of the Baroque (3)

Prerequisite: MUSIC 1010 or consent of department. A detailed study of music from 1600 to 1750. The rise of the new style, national styles in the seventeenth century, and the culmination of the Baroque period.

4240 Music of the Classic Period (3)

Prerequisite: MUSIC 1020 or consent of department. A study of the growth of classical style; galant and expressive styles; Mozart, Haydn, and Beethoven.

4250 Music of the Romantic Period (3)

Prerequisite: MUSIC 1020 or consent of department.
Composers, forms, and styles in nineteenth-century music.
The literary and social background of musical romanticism.

4260 Music of the Twentieth Century (3)

Prerequisite: MUSIC 1020 or consent of department. A detailed study of trends in modern music and of influential composers; impressionism, serial composition, electronic music, and other recent techniques.

4270 A History of Byzantine Music and Hymnography (3)

Prerequisite: M H L T 1020 or consent of department. A study of the liturgical and secular music of the Byzantine Empire and post-Byzantine period during the Ottoman occupation; a historical investigation of the Oriental and Ancient Greek origins of the music along with an evolution of the types of music and poetical forms. A study of the types of notation and transcription analyses from the Medieval neumes into Western staff notation is included.

4280 American Music (3)

Prerequisites: MUSIC 1010 or 1020 or consent of department. A study of the history and literature of American music, its composers, performers and influences on American and world culture. Compositions studied include classical compositions from the colonial era through contemporary times as well as literature from the gospel, blues, jazz and popular music genres.

5000 Directed Research in Music: Variable Topic (1-5)

Prerequisite: Consent of instructor. Directed independent research in music through readings, conferences, writings, and projects. This course may be repeated, but no more than 5 hours may be applied toward a degree.

Music Theory and Composition

1190 Fundamentals of Music (3) [V]

This course provides basic music vocabulary: scales, intervals, and chords, and systematic instruction in the melodic, rhythmic, and harmonic aspects of music. This course will not apply toward requirements for a music major.

1301 Theory of Music I (3) [V,H]

Prerequisite: Consent of the department. The basic materials of music and their use in analyzing and writing music. Concurrent registration in MUSIC 1302 is required for music majors and minors.

1302 Aural Training I (1)

Prerequisite: Consent of the department. Systematic instruction in ear training and sight singing. Includes diatonic melodic and rhythmic dictation, chord quality recognition, sight singing of diatonic melodies, and the reading of units and divisions of units in simple and compound meters.

1311 Theory of Music II (3) [V,H]

Prerequisites: MUSIC 1301 and MUSIC 1302 or consent of department. The study of seventh chords, secondary dominants, and modulation; composition in small forms. Concurrent registration in MUSIC 1312 is required for music majors and minors.

1312 Aural Training II (1)

Prerequisites: MUSIC 1301 and MUSIC 1302 or consent of department. The systematic instruction in ear training and sight singing begun in MUSIC 1302 is continued. It includes further diatonic melodic and rhythmic dictation, primary chord progressions, sight singing of diatonic melodies, and the reading of unit subdivisions in simple and compound meters.

2301 Theory of Music III (3) [V,H]

Prerequisites: MUSIC 1311 and MUSIC 1312 or consent of department. Study of chromaticism in eighteenth and nineteenth centuries; composition in simple part forms. Concurrent registration in MUSIC 2302 is required for music majors and minors.

2302 Aural Training III (1)

Prerequisites: MUSIC 1311 and MUSIC 1312 or consent of department. Systematic instruction in ear training and sight singing of MUSIC 1312 is continued. Chromatic melodic dictation, rhythmic dictation continues, secondary and altered chords in progressions are introduced. Sight singing of chromatic, modulating, and modal melodies, and the reading of syncopated rhythmic patterns are included.

2311 Theory of Music IV (3) [V,H]

Prerequisites: MUSIC 2301 and 2302 or consent of department. Study of late nineteenth- and early twentieth-century tonal harmony; analysis of large forms; composition in large forms. Concurrent enrollment in 2312 is required for all music majors and minors.

2312 Aural Training IV (1)

Prerequisites: MUSIC 2301 and 2302 or consent of department. Systematic instruction in sight singing and advanced aural perceptions. Includes drill in recognition of formal events and key relationships, sight singing of twentieth-century melodies, and rhythmic drills in borrowed divisions and changing meters.

3110 Analysis of 20th Century Technique (2)

Prerequisite: MUSIC 2311/2312 or consent of department. Study of compositional devices in tonal and atonal music of the twentieth century.

3120 Tonal Counterpoint (2)

Prerequisite: MUSIC 2311/2312 or consent of department. Study of tonal counterpoint with emphasis on the eighteenth-century style. Composition in two and three parts.

3300 Seminar in Composition (2)

Prerequisite: MUSIC 3110 or consent of instructor. The study of composition in theory and practice.

3410 Orchestration (3)

Prerequisite: MUSIC 2311/2312 or consent of department. Study of the instruments of the brass, woodwind, percussion, and string families; scoring, transcription, and arranging for various instrumental ensembles.

3420 Choral Arranging (2)

Prerequisite: MUSIC 2311/2312 or consent of department. Study of vocal ranges, characteristics and capabilities at various ages and scoring for choral ensembles comprised of singers in these varying stages of development.

3430 Instrumentation and Scoring Technique (2)

Prerequisite: MUSIC 2311/2312 or consent of department. Study of the modern orchestral instruments; scoring for various instrumental ensembles with emphasis on idiomatic technique and transcription from keyboard models. This course will not fulfill the music degree requirement for students with instrumental or keyboard emphases.

4000 Directed Studies: Variable Topic (1-5)

Prerequisite: Consent of instructor. Directed independent study of selected topics in music. May be repeated, if topic is substantially different but no more than 5 hours may be applied toward a degree.

5000 Directed Research in Music: Variable Topic (1-5)

Prerequisite: Consent of instructor. Directed independent research in music through readings, conferences, writings, and projects. This course may be repeated, but no more than 5 hours may be applied toward a degree.

5110 Scoring and Arranging (3)

Prerequisite: Graduate standing in music. Experience in scoring and arranging music for a variety of ensembles.

Pedagogy

1250 Brass Techniques (2)

Prerequisite: Consent of the department. The objective of this course is to familiarize students with materials and techniques for teaching all brass instruments including trumpet, horn, trombone, euphonium, and tuba in the school setting.

1260 Woodwind Techniques (2)

Prerequisite: Consent of the department. The objective of this course is to familiarize students with materials and techniques for teaching all woodwind instruments including flute, clarinet, oboe, bassoon, and saxophone in the school setting.

1270 String Techniques (2)

Prerequisite: Consent of the department. The objective of this course is to familiarize students with materials and

techniques for teaching all string instruments including violin, viola, cello, and bass in the school setting.

1280 Percussion Instrumental Techniques (2)

Prerequisite: Consent of the department. The objective of the course is to familiarize students with materials and techniques for teaching all percussion instruments including snare drum, tom-tom, bass drum, cymbals, drumset, timpani, mallet instruments and miscellaneous percussion instruments in the school setting.

1560 Piano Pedagogy (2)

Prerequisite: Successful completion of 2 semesters of Applied Music 1450, Piano or consent of instructor. A study of methods, repertoire, and technical problems pertaining to private studio teaching for all levels of performance ability.

4000 Directed Studies: Variable Topic (1-5)

Prerequisite: Consent of department. Directed independent study of selected topics in music. May be repeated, if topic is substantially different but no more than 5 hours may be applied toward a degree.

5000 Directed Research in Music: Variable Topic (1-5)

Prerequisite: Consent of instructor. Directed independent research in music through readings, conferences, writings, and projects. This course may be repeated, but no more than 5 hours may be applied toward a degree.

Practicum

1140 Piano Proficiency (1)

Prerequisite: Consent of department. Group instruction for music majors who do not meet beginning keyboard requirements.

1150 Piano Proficiency (1)

Prerequisite: Consent of department. Group instruction for music majors who do not meet beginning keyboard requirements.

1250 Singer's Diction: English, Italian, and German (1)

Prerequisite: MUSIC 1440-1459 or MUSIC 1240. A study of English, Italian, and German pronunciation using the International Phonetic Alphabet.

1260 Singer's Diction: Latin, French, and Spanish (1)

Prerequisite: MUSIC 1440-1459 or MUSIC 1240. Study of Latin, French, and Spanish pronunciation using the International Phonetic Alphabet.

1530 Accompanying I (1)

Prerequisite: Consent of department. Accompanying and ensemble practices, including rehearsal techniques, for keyboard majors. Public performance of works studied is required.

1540 Accompanying II (1)

Prerequisite: Consent of department. Continuation of PRACTM 1530.

1550 Accompanying III (1)

Prerequisite: Consent of department. Continuation of PRACTM 1540.

2160, 2180, 3190, 3290 Intermediate Piano Proficiency (1)

Prerequisite: MUSIC 1150 or permission of department. Continuation of piano proficiency study.

2170 Jazz Keyboard Harmony (1)

Prerequisite: AP MUS 2160 or consent of department. Group keyboard instruction in the application of chordal structures and harmonic functions commonly used in mainstream jazz performance.

2510 Conducting I (2)

Prerequisite: MUSIC 2301/2302. Concurrent registration in MUSIC 2610 required for bachelor of music in music education program. Techniques and problems in conducting.

2610 Elementary School Instrumental Literature Laboratory (1)

Prerequisite: MUSIC 2301 & 2302. Active conducting experience while analyzing and evaluating selected instructional and concert materials for elementary grades.

2611 Elementary School Choral Literature Laboratory (1)

Prerequisites: MUSIC 2301 & 2302. Active conducting experience while analyzing and evaluating selected instructional and concert materials for elementary grades.

2700 Seminar in Performance and Outreach (1)

Prerequisites: Acceptance as a music major/minor and two semesters of applied music study or by consent of instructor. Instruction in developing performance repertoire and skills for community and educational outreach programming. Student presentations of these programs in community and educational venues required. Course may be repeated for up to 4 credit hours.

3521 Conducting II Instrumental (2)

Prerequisite: MUSIC 2510. Concurrent registration in MUSIC 3620 required for bachelor of music in music education program. Advanced study of instrumental conducting and rehearsal techniques, score reading, and interpretation.

3522 Conducting II Choral (2)

Prerequisite: MUSIC 2510. Concurrent registration in MUSIC 3620 required for bachelor of music in music education program. Advanced study of choral conducting and rehearsal techniques, score reading, and interpretation.

3620 Junior-Senior High School Instrumental Literature Laboratory (1)

Prerequisite: MUSIC 2311 & 2312. Analysis and evaluation of selected instructional and concert materials for junior and senior high school performance groups.

3621 Junior-Senior High School Choral Literature Laboratory (1)

Prerequisites: MUSIC 2311 & 2312. Analysis and evaluation of selected instructional and concert materials for junior and senior high school performance groups.

3920 Senior Research (2-4)

Prerequisite: Consent of department. Required of all senior music majors. Directed readings and research in an area mutually acceptable to the student and instructor.

4000 Directed Studies: Variable Topic (1-5)

Prerequisite: Consent of department. Directed independent study of selected topics in music. May be repeated, if topic is substantially different but no more than 5 hours may be applied toward a degree.

4920 Internship (1-3)

Prerequisites: Senior standing in bachelor of music business emphasis program and permission of the instructor. Supervised experience in the area of the student's career objective, such as music or instrument merchandising, arts management, mass communication, publishing, manufacturing or other, as available. May be repeated once for credit in different area.

5000 Directed Research in Music: Variable Topic (1-5)

Prerequisite: Consent of instructor. Directed independent research in music through readings, conferences, writings, and projects. This course may be repeated, if topic is substantially different, but no more than 5 hours may be applied toward a degree.

5020 Choral Literature (3)

Prerequisite: Graduate standing in music. Study of choral literature appropriate for ensembles from elementary to senior high school. Criteria for evaluating choral literature will be developed, and pedagogical implications of choral music as a means of developing comprehensive musicianship will be discussed.

5030 Band Literature (3)

Prerequisite: Graduate standing in music. Study of band literature appropriate for soloists and ensembles from elementary to senior high school. Criteria for evaluating the literature will be developed, and related technical problems will be studied.

5035 Instrumental Literature (3)

Prerequisites: Graduate standing in Music. Study of literature appropriate for soloists and ensembles for

elementary to senior high school band, orchestra and jazz ensemble. Criteria for evaluating the literature will be developed and related technical problems will be studied.

5210 Graduate Conducting (3)

Prerequisite: Graduate standing in music. Conducting techniques, score reading, and interpretation of choral, orchestral, and band literature.

5480 Graduate Applied Conducting (1-2)

Prerequisite: PRACTM 5210 and consent of the department. Private conducting study of the choral, orchestral, or band repertoire. Does not fulfill the applied music requirement for the master of music education degree.

Additional information may be obtained by contacting us:

Department of Music: 314-516-6980.

<http://www.umsl.edu/~music/>

Department of Theatre, Dance & Media Studies

Faculty

Michael Murray, Professor; Chairperson; Curators' Teaching Professor (Media Studies)
Ph.D., University of Missouri-Columbia
Adeniyi (Niyi) Coker, Professor; E. Desmond Lee Professor in African Studies; Fellow, Center for International Studies (Theatre & Dance)
Ph.D., Temple University
Thomas McPhail, Professor (Media Studies)
Ph.D., Purdue University
Rita Csapo-Sweet, Associate Professor (Media Studies)
Ed.D., Harvard University
James Fay, Associate Professor (Media Studies)
M.F.A., Tulane University
Felia Davenport, Assistant Professor (Theatre & Dance)
M.F.A., University of Tennessee, Knoxville
Robert Scoggins, Assistant Professor (Theatre and Dance)
M.F.A., in Dance, Lindenwood University
Jason Cannon, Visiting Assistant Professor (Theatre & Dance)
M.A., Washington University
Krista Tucciarone, Teaching Assistant Professor (Media Studies)
Ph.D., University of Missouri-St. Louis

The Theatre, Dance, and Media Studies department program is a newly-reactivated program at the University of Missouri-St. Louis. The BA degree program in Theatre and Dance is offered, as well as the BS degree in Media Studies, approved by the Board of Curators and the CBHE.

The Theatre and Dance area offers four main stage productions each academic year. The University Players, a recognized student organization, is open to any UMSL student, as is Jete, the student Dance organization.

Media Studies students are active in the Film Production Society, Ad Corps, SEMPA, the student radio organization and community internships. Students are actively involved in media production for both internal and external agencies.

For further information concerning the theatre, dance and/or media productions, curriculum, or other matters, contact the department of Theatre, Dance, and Media Studies at 314-516-4572.

Undergraduate Studies

General Education Requirement

• All Theatre and Dance majors must satisfy the University and College of Fine Arts and Communication's 42-hour general education core

requirements, which include English 1100 and the Math proficiency requirement.

- Junior-level writing class is required
- The Cultural Diversity requirements may be satisfied by General Education courses or lower-or upper-level courses in various departments.
- State Government/History graduation requirements may be satisfied by General Education courses or by other lower-or upper-level courses in various departments.
- 13 hours of a foreign language

Degree Requirements

Bachelor of Arts in Theatre and Dance

Theatre and Dance majors must complete a minimum of 36, but not more than 52 hours in Theatre and Dance courses. A core of 26 hours is required for all majors and 10-26 additional hours in Theatre and Dance are required. At least 24 hours in the major must be taken at UMSL and must include 6 hours at the 2000 or higher level and 9 hours at the 3000 or higher level. All courses required for the major must be completed with a minimum grade of C- to be accepted, and the overall total grade point average must be at least 2.0 to graduate. To be eligible to participate in Internship classes, each student must have an overall grade point average of 3.0

In addition to the major's required core and elective Theatre & Dance courses, students will choose elective courses to bring their total credit hours to 120. Practicum courses may be repeated for credit; an overall limit of 20 hours in Practicum courses will be accepted towards the 120 hour degree.

Required Core Courses for all Theatre and Dance Majors

- 1210, Fundamentals of Acting (3 hours)
- 1900, Introduction to Theatre Technology (3 hours)
- 1910, Introduction to Theatrical Design (3 hours)
- 1023, Fundamentals of Dance (3 hours)
- 2810, History of World Theatre & Drama I; or
- 2820, History of World Theatre & Drama II; or
- 2840, History of Dance I (3 hours)
- 2841, History of Dance II (3 hours)
- 2 hours chosen from these Production related courses:**
- 1060, Theatre Workshop
- 2260, Introduction to Theatrical Costume Production
- 3060, Advanced Theatre Workshop
- 3254, Costume Production & Construction Techniques
- 6 hours chosen from these Practicum courses (3 hours of which need to be above the 3000 level)**
- 2195, Practicum in Performance Studies
- 2196, Theatre Practicum: Scenery/Lighting/Sound in Theatre Production
- 2197, Practicum in Costume
- 2198, Practicum in Dance
- 3195, Advanced Practicum in Performance Studies
- 3196, Advanced Theatre Practicum: Scenery/Lighting/Sound in Theatre Production

3197, Advanced Practicum in Costume

3198, Advanced Practicum in Dance

26 hours total – Additional hours in Theatre and Dance electives are to be selected based on individual students' areas of interest. The core courses of 26 hours plus the Theatre and Dance electives must equal a minimum of 36 hours, but not more than 52 hours, for Theatre and Dance majors.

Minor in Theatre and Dance

Students with other majors may choose to minor in Theatre and Dance to complement their academic and career goals. The minor requires 18 hours of Theatre and Dance courses, nine of which must be taken at UMSL. A minimum GPA of 2.0 is required in the minor.

A. Minor in Theatre and Dance consists of the following:

a. 3 hours chosen from these Performance related courses:

- 2211, Acting Styles
- 3210, Ensemble Acting
- 3305, Writing for Performance
- 4220, Directing for the Theatre

b. 3 hours chosen from these Design/Technology related courses:

- 2260, Introduction to Theatrical Costume Production
- 2280, Lighting and Sound Technology
- 3252, Costume Design
- 3254, Costume Production & Construction Techniques
- 3260, Scenic Design
- 3261, Lighting Design

c. 2-3 hours chosen from these Dance related courses:

- 1006, Beginning Ballet Technique
- 1007, Beginning Jazz Dance Technique
- 1008, Beginning Modern Dance Technique
- 2006, Intermediate Ballet Technique*
- 2007, Intermediate Jazz Dance Technique*
- 2008, Intermediate Modern Dance Technique*
- 3006, Advanced Ballet Technique*
- 3007, Advanced Jazz Dance Technique*
- 3008, Advanced Modern Dance Technique*
- 3009, Dance Choreography for the Stage, Television, and Video
- 3105, Advanced Dance Repertory*

d. 2 hours chosen from these Production related courses:

- 1060, Theatre Workshop
- 2260, Introduction to Costume Design & Production
- 3060, Advanced Theatre Workshop

e. 1 hour chosen from these Practicum courses:

- 2195, Practicum in Performance Studies
- 2196, Theatre Practicum: Scenery/Lighting/Sound in Theatre Production
- 2197, Practicum in Costume
- 2198, Practicum in Dance
- 3195, Advanced Practicum in Performance Studies

3196, Advanced Theatre Practicum: Scenery/Lighting/Sound in Theatre Production

3197, Advanced Practicum in Costume

3198, Advanced Practicum in Dance

f. 6-7 hours chosen from any additional Theatre and Dance courses

*Enrollment in Intermediate-and Advanced-level Dance Technique courses is by audition only. Beginning-level courses may be repeated for credit until sufficient proficiency has been achieved to advance to higher-level courses

Bachelor of Science in Media Studies

General Education Requirements

- Media Studies majors must satisfy the University and the College of Fine Arts and Communication 42 hour General Education core requirements which include English 1100 and the Math proficiency requirement.
- A Junior level writing class is required.
- The Cultural Diversity requirements may be satisfied by General Education courses or by other lower or upper level courses in various departments.
- State Government/History graduation requirements may be satisfied by General Education courses or by other lower or upper level courses in various departments.
- There is no foreign language requirement, but foreign language proficiency is recommended.

Degree Requirements

All majors must complete a minimum of 51 hours in Media Studies courses and at least 24 of these hours must be taken at UMSL. A minimum of 39 credit hours in Media Studies and a minimum of 12 hours in Theatre and Dance, totaling 51 credit hours, are required. At least 18 hours of coursework must be taken at the 2000 level or above at UMSL. There is no foreign language requirement, but foreign language proficiency is recommended.

In addition to the major core and required courses, students will choose elective courses to bring their total credit hours to 120. Practicum and Internship courses may be repeated for credit, but an overall limit of 20 hours in Practicum and Internship will be accepted towards the 120 hours degree.

Required Core Courses for all Media Studies majors:

- MEDIA ST 1050**, Introduction to Media Studies (3 hours)
- MEDIA ST 1065**, Introduction to Information Technology (3 hours)
- MEDIA ST 1135**, Media Theory (3 hours)
- TH DAN 1900**, Introduction to Theatre Technology (3 hours)
- MEDIA ST 1070**, Introduction to Cinema (3 hours) or **MEDIA ST 1100**, Introduction to Advertising or **MEDIA ST 1110**, Introduction to Radio/TV Broadcasting
- MEDIA ST 1194-8**, Practicum (6 hours)

and/or **MEDIA ST 3194-8**, Internship (Students must have a 3.0 G.P.A. in the major or consent of instructor to take an internship)

21 hours total

Additional hours in Theatre, Dance and Media Studies electives are to be selected on individual students' areas of interest. The core courses of 21 hours plus the Theatre, Dance, and Media Studies electives must equal 27 hours, for Media Studies majors.

Any other Theatre and Dance class (9)
Any other Media Studies class at the 2000 level or above (9)
Any other Media Studies class at the 3000 level or above (9)

27 hours total

Minor in Media Studies

A minor in Media Studies consists of the following:

1. 3 hours
1135, Media Theory
2. 6 hours chosen from the following:
1050, Introduction to Media Studies
1060, Introduction to World Cinema
1065, Introduction to Information Technology
1070, Introduction to Cinema
1100, Introduction to Advertising
1108, Advertising Copywriting
1110, Introduction to Radio/TV Broadcasting
1113, Basic Television Studio Production
1114, Radio Production I
1118, Radio and Television Announcing
3. 3 hours chosen from the following:
1775, Introduction to Non-Western Cinema
2210, Television Production I
2211, Introduction to Digital Multimedia Production
2212, Broadcast Writing and Reporting
2217, Script Writing for Business and Industry
2218, Public Policy in Telecommunication
2275, Introduction to International Cinema
2500, Introduction to comparative International Media Systems
3370, Documentary Film
4. 6 hours chosen from the following:
2228, Public Relations Writing
2271, History of American Film
2272, Contemporary Cinema
3035, Advanced Media Theory
3070, International Cinema
3150, Feature Writing
3180, Reporting
3214, News Writing
3310, Television Production II
3313, Advanced Video Editing
3316, Television News

- 3317, Radio and Recording Industry
- 3334, Advertising in Media Planning
- 3338, Advertising Techniques
- 3350, Mass Media History
- 3354, Comparative Telecommunication Systems
- 3355, Media Law and Regulation
- 3356, Global Media Systems and Trends
- 4335, Seminar in Applied Media Studies Research

Theatre, Dance & Media Studies

Prerequisites may be waived by consent of the department.

Course Descriptions: Theatre and Dance

1006 Beginning Ballet Techniques (2)

An introduction to the art of ballet emphasizing basic movement, technique and terminology. Course study will include basic barre exercises, center work, and across the floor progressions for proper alignment, strength, flexibility, and coordination. Prior dance experience is not required. Dance attire and ballet slippers will be required. Course may be repeated for up to 10 credit hours.

1007 Beginning Jazz Dance Technique (2)

An introduction to the art of jazz dance emphasizing basic principles of traditional and contemporary forms of jazz dance movement, technique, terminology, and style. Course will focus on increasing strength, flexibility, coordination, and creative expression. Prior dance experience is not required. Dance attire and jazz shoes will be required. Course may be repeated for up to 10 credit hours.

1008 Beginning Modern Dance Technique (2)

An introduction to the art of modern dance movement, technique, and terminology. Course of study will introduce the elements of time, space, and energy through basic structured exercises and improvisation. Emphasis will be focused on alignment, strength, flexibility, coordination, and creative expression. Prior dance experience is not required. Dance attire is required. Shoes are not required. Course may be repeated for up to 10 credit hours.

1023 Fundamentals of Dance (3)

This course provides an introductory exploration of movement through various styles of dance, emphasizing movement vocabulary, stretching, strengthening, body alignment, and creative expression. Prior dance experience is not required. Dance attire and shoes will be required.

1060 Theatre Workshop (1-2)

Course provides practical application of technical theatre practices through 45 hours of lab work within the areas of scenery, lighting, properties, and sound in conjunction with departmental productions. Personal safety equipment and basic tools will be required. Course may be repeated for up to 8 credit hours.

1105 Dance Repertory (1-3)

Prerequisites: Consent of instructor. Students will learn and rehearse original choreography created by faculty and guest artists. At the end of the semester, students will perform original works at a dance concert. Dance attire and appropriate dance shoes are required. Course may be repeated for credit up to 6 hours.

1175 Arts and Ideas (3)

Same as ART HS 1175, ENGL 1175, HIST 1175, MUSIC 1175, PHIL 1175. An interdisciplinary course tied to the semester's offerings at the Blanche Touhill Performing Arts Center as well as other events on campus featuring the visual arts, literature, music and film. Each semester the course will provide background on the arts in general and will critically examine particular performances and offerings. Special themes for each semester will be selected once the Touhill schedule is in place. Students will be expected to attend 6-8 performances or exhibitions. Can be repeated once for credit.

1210 Fundamentals of Acting (3) (H)

Course develops personal communication and presentational skills through vocal, physical, and emotional exercises designed for the beginning actor. Course emphasizes relaxation, concentration, improvisation, script analysis, characterization, and scene work exercises to develop elementary performance skills.

1600 Voice and Diction/Vocal Performance (3)

Course promotes development of clear, distinct enunciation and correct pronunciation for mass media communication, public address, theatre, and oral interpretation. Course includes development of oral-presentational and self promotional skills for voice acting/voice-over in contemporary theatre and media.

1800 Introduction to Theatre (3) (H)

A study of Theatre as an art form, emphasizing the audience's appreciation of the art of the playwright, actor, director, designers, and technicians. Major periods, genres, dramatic forms from classical to modern to the avant garde as well as performance art will be covered. Students will attend performances and learn about how theatre functions as an art and an industry in today's world. Attendance at several live theatrical (theatre, play, musical, opera and dance) performances will be required.

1850 Introduction to Non-Western Theatre (3) (C), (H), (CD)

Survey of theatre forms of the non-European world in which primary attention is concentrated on analysis of traditional dance drama and puppet theatres of East Asia, South Asia, the Middle East and Africa. Similar forms of European theatre will be included for comparative purposes. Focus on the development of world theatre from a visual point of view, from earliest storytelling rituals through international stage development to contemporary theatrical forms, with a view to understanding the global perspective. Course will

survey visual media and writings on dance and theatre traditions found around the non-Western World.

1900 Introduction to Theatre Technology (3)

Introductory course covering the basic theories and techniques of Theatre Technology including stage equipment and safety, scenery, lighting, costuming, properties, sound and box office. Course includes practical application through a minimum of 25 hours of lab work in conjunction with a departmental production.

1910 Introduction to Theatrical Design (3)

Prerequisites: TH DAN 1900 or Consent of instructor. Introductory course covering the elements and principles of design in the areas of scenery, lighting, and costumes. Course will include various creative projects in two and three dimensions. Some graphic materials will be required.

2006 Intermediate Ballet Technique (2)

Prerequisites: 2.0 Credit Hours of TH DAN 1006 or consent of instructor. Ballet movement, technique, vocabulary, and aesthetics with particular focus on precision and performance. Course of study will be a continuation of Beginning Ballet Technique barre exercises, center work, and across the floor progressions. Dance attire and Ballet slippers will be required. Course may be repeated for up to 10 credit hours.

2007 Intermediate Jazz Dance Technique (2)

Prerequisites: 2.0 Credit Hours of TH DAN 1007 or consent of instructor. Jazz dance movement, technique, vocabulary, and aesthetics with particular focus on personal movement style and expression. Course will also study unique dance styles and artists that have influenced the stage video, film, and commercial media industry. Dance attire and jazz shoes will be required. Course may be repeated for up to 10 credit hours.

2008 Intermediate Modern Dance Technique (2)

Prerequisites: 2.0 credit hours of TH DAN 1008 or consent of instructor. Modern dance movement, technique, vocabulary, and aesthetics. Course of study will be continuation of Beginning Modern Dance Technique through incorporation of more complex movement and patterns. Emphasis on accuracy and performance will be explored. Dance attire is required. Dance shoes are not required. Course may be repeated for up to 10 credit hours.

2105 Script Analysis (3) (C), (H)

This course introduces students to elementary script analysis. Students learn basic structural and interpretative strategies for analyzing play scripts and other forms of performance texts.

2195 Practicum in Performance Studies (1-3)

Prerequisites: Consent of instructor. Provides practical experience in acting, directing, or dramaturgy through rehearsal and performance in conjunction with department productions, or other approved independent study projects.

Laboratory time will be scheduled and may include evening and weekend rehearsals and performances. Course may be repeated for up to 8 credit hours.

2196 Practicum in Scenery/Lighting/Sound in Theatre Production (1-3)

Course provides practical experience in scenery, lighting, sound, and properties implementation and/or running crew work in conjunction with departmental productions, or other approved independent study projects. Running crew work will involve evening and weekend assigned times. Additional daytime hours will vary according to assignment. Credit hours are determined based on the scope of the project. Course may be repeated for up to 6 credit hours.

2197 Practicum in Costume (1-3)

Practicum in costume construction, cutting, draping, millinery, fabric dyeing/painting, distressing, crafts including wardrobe and makeup running crews, in conjunction with the theatre and dance department productions, or other approved independent study projects. In addition to daytime lab hours, occasional weekend and/or evening laboratory time will be required. Appropriate clothing and personal safety equipment will be required. Personal sewing equipment will be required. Course may be repeated for up to 8 credit hours.

2198 Practicum in Dance (1-3)

Prerequisites: Consent of Instructor. Course provides practical experience in dance, stage movement, stage combat, choreography and/or running crew work in conjunction with departmental productions, or other approved independent study projects. Running crew work will involve evening and weekend assigned times. Additional daytime hours will vary according to assignment. Credit hours are determined based on the scope of the project. Course may be repeated for up to 6 credit hours.

2211 Acting Styles (3) (C), (H)

Prerequisites: TH DAN 1210 or consent of instructor. This course explores diverse acting styles; including historical and cultural distinctions in manners, movement, and vocal practice. Course includes additional emphases on non-realistic acting, non-Western theatrical performance, plus style distinctions between stage acting, vocal acting, television acting, and acting for cinema.

2241 Argumentation and Debate (3)

Prerequisites: COMM 1040 or 1041, or consent of instructor. Principles of argumentation and debate with practice in preparing briefs and in delivering spoken arguments in formal debate. Emphasis on analysis of issues, logical reasoning, and audience analysis.

2250 Stagecraft (3)

Prerequisites: TH DAN 1900 or Consent of Instructor. A survey of the theories, terminology, and practices of methods and equipment of scenic and properties construction, painting, and rigging. Course includes

practical application through 45 hours of lab work in conjunction with departmental productions. Personal safety equipment will be required.

2260 Introduction to Theatrical Costume Production (3)

A survey of the theory, practices and vocabulary of theatrical costuming; the visualization and realization of the costume through the arts of pattern cutting; construction techniques; draping; dyeing, painting, and distressing. Course includes practical application of techniques through required 45 hours of lab work in conjunction with current department productions.

2280 Lighting & Sound Technology (3)

Prerequisite: TH DAN 1900 or consent of instructor. A survey of the theories, terminology, and practices of methods, equipment, and control systems of lighting and sound technology for the stage. Course includes practical application through 45 hours of lab work in conjunction with departmental productions. Basic personal tools will be required.

2290 Drafting for the Theatre (3)

Prerequisites: TH DAN 1900 or consent of instructor. Survey course covering the fundamental techniques of two dimensional drafting. Drafting equipment will be required.

2300 Stage Management (3)

Prerequisites: Consent of instructor. Course develops fundamental stage management skills needed to supervise all operative aspects of play production from auditions through performance. These skills include: interpersonal and leadership skills, conflict resolution techniques, venue and staff management/scheduling, and technical script analysis. Course includes production experience.

2810 History of World Theatre and Drama Through the Restoration (3) (C) (H)

Prerequisite: TH DAN 1800 or consent of instructor. Survey of the history of influence of different cultures, traditions, and technologies on development of theatre as a social institution. History of Theatre and drama from ancient cultures to the Restoration period. Ritual and religious drama. Study of the origins of theatre and drama from oral tradition, myth, storytelling, Shamanism and collective ritual, Greek festival drama, and cloister drama of different cultures. Rise of secular drama, the traditions of classical Greek theatre. Study of the Renaissance, and drama in Europe, Asia, Africa and the New World.

2820 History of World Theatre and Drama from 18th Century to Contemporary Times (3) (H) (C)

Prerequisites: TH DAN 1800 or consent of instructor. History of theatre from the 18th century to contemporary times. Survey of history of influence of different cultures, traditions, and technologies on the development of theatre as a social institution. Study of realism and subsequent departures from realism in theatre, drama and performance.

2840 History of Dance to the 19th Century (3) (C) (H)

Prerequisites: TH DAN 1800 or consent of instructor.
Survey of western dance from pre-history through the middle ages and renaissance to 19th century. Study of dance in historical and cultural context, its function in society and its relationship to contemporary artistic expression.

2841 History of Dance from the 19th Century to Contemporary Times (3) (H) (C)

Prerequisites: TH DAN 1800 or consent of instructor.
Survey of western dance practice from 1850 to the present. History of modern dance: art dance from Isadora Duncan to Martha Graham.

3006 Advanced Ballet Technique (2)

Prerequisites: 4.0 credit hours of TH DAN 1006 and/or 2006 or consent of instructor. Advanced ballet movement, technique, vocabulary, and aesthetics with particular focus on precision and performance. Course of study will include advanced barre exercises, center work, and across the floor progressions. Variations, partnering, and pointe work may be incorporated at the discretion of the instructor. Dance attire and ballet slippers will be required. Course may be repeated for up to 6 credit hours.

3007 Advanced Jazz Dance Technique (2)

Prerequisites: 4.0 credit hours of TH DAN 1007 and/or 2007 or consent of instructor. Advanced jazz dance movement, technique, vocabulary, and aesthetics with particular focus on personal movement style and performance. Study of unique dance styles and artists that have influenced the stage, video, film, and commercial and media industry. Dance attire and jazz shoes will be required. Course may be repeated for up to 6 credit hours.

3008 Advanced Modern Dance Technique (2)

Prerequisites: 4.0 credit hours of TH DAN 1008 and/or 2008 or consent of instructor. Advanced level of modern dance movement, technique, vocabulary, and aesthetics. Incorporation of more complex movement and patterns. Emphasis on accuracy and performance will be explored. Dance attire is required. Dance shoes are not required. Course may be repeated for up to 6 credit hours.

3009 Dance Choreography for the Stage, Television, and Film (3)

Prerequisites: 4 Credit hours of any level and combination of TH DAN 1006, 1007, 1008, 2006, 2007, 2008, 3006, 3007 & 3008. Course will focus on directed movement studies and composition techniques for the stage, television, and film. Personal creativity and original movement inventions will be explored, as well as the creation, development, and transformation of original movement studies into completed works. Dance attire and dance shoes are required. Course may be repeated for up to 6 credit hours.

3060 Advanced Theatre Workshop (1-2)

Prerequisites: TH DAN 1060 or consent of instructor.
Practical application of technical theatre practices through

45 hours of lab work within the areas of scenery, lighting, properties, and sound in conjunction with departmental productions. Personal safety equipment and basic tools will be required. Course may be repeated for up to 8 credit hours.

3195 Advanced Practicum in Performance Studies (1-3)

Prerequisites: Consent of instructor. Course provides advanced practical experience in acting, directing, or dramaturgy through rehearsal and performance in conjunction with department productions, or other approved independent study projects. Laboratory time will be scheduled and may include evening and weekend rehearsals and performances. Course may be repeated for up to 8 credit hours.

**3196 Advanced Theatre Practicum:
Scenery/Lighting/Sound in Theatre Production (1-3)**

Prerequisites: Consent of instructor. Course provides advanced practical experience in scenery, lighting, sound, and properties implementation and/or running crew work in conjunction with departmental productions, or other approved independent study projects. Running crew work may involve evening and weekend assigned times. Additional daytime hours will vary according to assignment. Credit hours are determined based on the scope of the project. Course may be repeated for up to 6 credit hours.

3197 Advanced Practicum in Costume (1-3)

Prerequisites: Consent of instructor. This course provides advanced practical experience in costume construction, cutting, draping, millinery, fabric dyeing/painting, distressing, crafts including wardrobe and makeup running crews, in conjunction with the theatre and dance department productions, or other approved independent study projects. In addition to daytime Lab hours, occasional weekend and/or evening laboratory time may be required. Appropriate clothing and personal safety equipment will be required. Personal equipment will be required. Course may be repeated for up to 8 credit hours.

3198 Advanced Practicum in Dance (1-3)

Prerequisites: Consent of instructor. Course provides practical experience in dance, stage movement, stage combat, choreography and/or running crew work in conjunction with departmental productions, or other approved independent study projects. May involve additional hours including evening and weekend assigned times. Credit will be based on the scope of the project. Course may be repeated for up to 6 credit hours.

3210 Ensemble Acting (3)

Prerequisite: TH DAN 1210. Laboratory acting course emphasizing group dramatic analysis and collaborative play development and rehearsals culminating in an ensemble performance. Course emphasizes collaboration, cooperation, and team-building skills for performers in the

theatre. Special attention is paid to the creation of dramatic works through collaborative means.

3252 Costume Design (3)

Prerequisites: TH DAN 1910, 2260 or consent of instructor. Content of course includes study of theories, styles, visualization of ideas, and techniques of costume design; discussion of principles of design, script analysis, the collaborative roles of designers in the theatrical production; research, and exploration of character representation; study of the human figure, drawing, and rendering techniques. Course may be repeated for up to 6 credit hours.

3254 Costume Production and Construction Techniques (3)

Prerequisites: TH DAN 1900, 2260 or consent of instructor. Study of theory and application of pattern making, fitting, construction techniques for costumes and undergarments to achieve authentic-appearing costumes using contemporary methods. Provides practical experience in costume construction, as well as wardrobe and makeup. Participation in running crews, in conjunction with the theatre and dance department productions, or other approved independent study projects may be required. Personal equipment will be required. Weekend and evenings may be required. Appropriate clothing and personal safety equipment required. Course may be repeated for up to 8 credit hours.

3257 Makeup for Theatrical Productions (3)

Prerequisites: TH DAN 1800, 1910, or consent of instructor. The art of makeup and its relation to production. Overview of European history and tradition of makeup. Theory, history and the practice of makeup traditions for theatre, dance and performance will be included.

3260 Scenic Design (3)

Prerequisites: TH DAN 1900, 1910, 2250, 2290, or consent of instructor. Survey of the theories and practices of scenery design for the theatre. This course will emphasize the creative process from conceptual script analysis through final design projects, sketching, drafting, rendering, and model making. Personal graphics and drafting materials will be required.

3261 Lighting Design (3)

Prerequisites: TH DAN 1900, 1910, 2280, or consent of instructor. Survey of the theories and techniques of lighting design for theatre and dance. This course will emphasize the creative process from script and choreographic concepts through final design projects, sketching, drafting, rendering, and related paperwork. Personal graphics and drafting materials will be required.

3262 Theatrical Rendering and Model Making (3)

Prerequisites: TH DAN 1900, 1910, or consent of instructor. Course provides opportunities to further explore techniques in scenery, lighting, and costume design. This course will include 2-D and 3-D projects designed to strengthen skills in drawing, rendering, model making, and publicity materials.

3263 Scene Painting (3)

Prerequisites: TH DAN 1900, 1910, or consent of instructor. Survey of theories, materials and techniques of scene painting for the stage. Course includes 45 lab or studio hours for application and practice of painting projects, and possible evening and/or weekend studio hours.

3305 Writing for Performance (3)

Prerequisites: Consent of instructor. An introduction to writing for performance, including playwriting and dramatic adaptation. Students' particular interests will determine course content; ranging from sketch comedy or adaptation of literature for the stage, to full-length comic or dramatic plays. This course is writing intensive and may require additional laboratory hours.

3394 Practicum in Performing Arts Management: Theatre and Dance (3)

Prerequisites: None. Study of issues related to the management of arts organizations. This course will consider grant writing, creation and administration of community boards, financial issues in arts management, and the mainstream of both high artistic standards and effective organizational processes.

4100 Teaching for Dance (3)

Prerequisites: 8 credit hours of any level and combination of TH DAN 1005, 1006, 1007, 1008, 2006, 2007, 2008, 3006, 3007, and/or 3008. A pedagogy class that focuses on theory and fundamental methods of teaching various genres of dance. Emphasis will be in the development, structure, and application of creating & teaching a variety of dance classes. Course will involve research, analysis, and practical examination of teaching methods appropriate to experience, age, gender, culture, and location. Dance attire and dance shoes are required.

4220 Directing for the Theatre (3)

Prerequisite: TH DAN 1210 or consent of instructor. A survey of the theories and practices of theatrical directing, beginning with the theories and techniques of accomplished directors. The stage director's role in performance development will be studied through script analysis, production planning, and the rehearsal process, culminating with a live performance. Final projects are laboratory scenes or a short one-act play.

4261 Advanced Projects in Design and Technology (1-3)

Prerequisites: Junior level with consent of instructor. Provides opportunities for supervised advanced projects in theatre design or technology in conjunction with departmental productions, or other independent study projects. Credit assigned based on scope of project. Course may be repeated for up to 6 credit hours.

4262 Advanced Problems in Costume (1-3)

Prerequisites: TH DAN 2260 or 3252 or consent of instructor. Provides opportunities in supervised special

projects in costume design and technology in conjunction with actual productions or other advanced independent projects. Includes design research process, script and character analysis, study of historical context and social environment, development of conceptual designs, study of current costume design and wardrobe practices. Personal equipment will be required. Credit based on scope of project. Course may be repeated for up to 6 credit hours.

4390 Theatre Internship (1-3)

Prerequisites: Junior level with consent of instructor. Provides opportunities for supervised projects in conjunction with off-campus professional theatre and/or dance companies in performance, management, design or technology. Credit based on scope of assignment. Course may be repeated for up to 6 credit hours.

4391 Dance Internship (1-3)

Prerequisites: Junior level with Consent of instructor. Provides credit for approved supervised projects in conjunction with off-campus professional theatre and/or dance companies. Credit based on scope of assignment. Course may be repeated for up to 6 credit hours.

4886 The Curriculum and Methods of Teaching Speech and Theatre (3)

Prerequisites: TCH ED 3310 or TCH ED 5310; students must be within three hours of completing a major in either Communication or Theatre, with 15-18 hours completed in another subject area. Same as Sec Ed 4886. A study in the scope and sequence of the Speech and Theatre courses in the school curriculum with emphasis on the selection and organization of materials and methods of instruction and evaluation. The course prepares students for reflective teaching by relating course readings to field experience and theory to practice. To be taken prior to student teaching and concurrently with Sec Ed 4989: Secondary Professional Internship. This course must be completed in residence. Not available for graduate credit.

Media Studies

1050 Introduction to Media Studies (3)

Introduction to print and electronic media studies. Emphasis on history, theory, and criticism of mass media as cultural institutions.

1060 Introduction to World Cinema (3)

An introduction to the history, rhetoric, and aesthetics of world cinema. International film theory and criticism will be studied as well as major genres, authors, and artists.

1065 Introduction to Information Technology (3)

The production and consumption of information by individuals, the work place and society. Emphasis on the changing nature of communication processes as a result of the expansion of communication technologies. (Previously COMM 1065)

1070 Introduction to Cinema (3)

An overview of American cinema from the early beginnings of D. W. Griffith and his contemporaries to the present day. Course will discuss both the Hollywood studio system and today's independent movement. Also covered: genre, film theory, criticism, and aesthetics.

1100 Introduction to Advertising (3)

An introduction to the history, rhetoric, and aesthetics of Advertising. A basic understanding of industry issues and key areas such as account management, research, strategy, creative, media, and production.

1110 Introduction to Radio and Television Broadcasting (3)

An introduction to broadcasting, including the areas of history, government regulations, station operation, and program development. (Previously COMM 1110)

1113 Basic Television Studio Production (3)

Study of basic television studio production techniques and practices. The class will provide the student with practical experience in studio camera operating, directing, producing, switching, audio mixing and lighting, as well as basic straight cut editing. Lab arranged. (Previously COMM 1113)

1114 Radio Production I (3)

Prerequisites: MEDIA ST 1110. Theory and practice in the creation of radio programs. Laboratory experience included. (Previously COMM 1114)

1118 Radio and Television Announcing (3)

Prerequisites: MEDIA ST 1113, or MEDIA ST 1114, or Consent of Instructor. Training in radio and television studio procedures. Production and criticism of lab programs, including news, continuity, interviews, and oral improvisation. Classroom meetings at the radio lab and the television lab, plus lab hours to be arranged. (Previously COMM 1118)

1135 Media Theory (3)

Theory based explanation of the relationship between mass media and society. Topics will include agenda-setting, violence and television, and other current issues from a critical perspective.

1194 Practicum in Journalism (1-3)

Prerequisites: Consent of instructor. Open to Theatre, Dance, and Media Studies majors or minors only. Not open to students who have any delayed grades outstanding. Practical work in the journalism program or the student newspaper, supervised by a faculty member. This course may be repeated for up to 6 credit hours.

1195 Practicum in Advertising (1-3)

Prerequisites: MEDIA ST 1108 or consent of instructor. Open to Theatre, Dance, and Media Studies majors or minors only. Not open to students who have any delayed

grades outstanding. Practical work in the advertising program, the student newspaper, or an on-campus agency, supervised by a faculty member. This course may be repeated for up to 6 credit hours.

1196 Practicum in Radio (1-3)

Prerequisites: MEDIA ST 1114 or consent of instructor. Open to Theatre, Dance, and Media Studies majors or minors only. Not open to students who have any delayed grades outstanding. Practical work at the campus radio station, supervised by a faculty member. This course may be repeated for up to 6 credit hours. (Previously COMM 1196)

1197 Practicum in Television/Film (1-3)

Prerequisites: MEDIA ST 1113 or consent of instructor. Open to Theatre, Dance and Media Studies majors only; not open to students who have delayed grades outstanding. Practical work at one of the campus television studios or for the UM-St. Louis Television/Film Club, supervised by a faculty member. This course may be repeated for up to 6 credit hours. (Previously COMM 1197)

1198 Practicum in Media Studies (1-3)

Prerequisites: Consent of instructor. Open to Theatre, Dance and Media Studies majors or minors only; not open to students who have any delayed grades outstanding. Practical work in media studies, supervised by a faculty member. This course may be repeated for up to 6 credit hours.

1775 Introduction to Non-Western Cinema (3)

Prerequisites: MEDIA ST 1070 with a grade of C or better. This course examines the art and history of non-western cinema. Significant films from Asia and Africa will be examined. The artistic, technical, historical, and social significance of these films will also be examined. This course will satisfy the University's cultural diversity requirement.

2080 Advertising Copywriting (3)

Prerequisites: None. Same as ENGL 2080. To give students a hands-on approach for writing advertising material for print and broadcast against tight deadlines in a professional setting. (Previously COMM 1108)

2090 Creative Advertising (3)

Prerequisites: MEDIA ST 1100 or consent of instructor. Explores the fundamentals of the creative process by discussing selling messages, marketplace diversity, research, strategy, layouts, and the creative brief. Emphasis on creative campaigns for radio, television, direct marketing, and the internet.

2210 Television Production I (3)

Prerequisites: MEDIA ST 1113 or consent of instructor. A study of the basic theories and practices of remote television production. The areas of producing and directing in the field will be studied. The class will provide the student with

practical experience in remote camera operation and basic non-linear editing techniques. Lab arranged. (Previously COMM 2210)

2211 Introduction to Digital Multimedia Production (3)

Students will explore different state-of-the-art digital multimedia applications, including audio, video, and computer generated graphics, that are presently used in television, radio, CD, DVD, and online presentation. Current media related software such as Quick Time, Window Media, and Flash multimedia creation will be demonstrated and utilized to develop skill sets in those areas.

2212 Broadcast Writing and Reporting (3)

Prerequisites: MEDIA ST 1110 or consent of instructor. Elementary principles and practice of writing for radio and television in varied program formats, emphasis on preparation of written materials for news and public affairs presentation. Lecture and lab. (Previously COMM 2212)

2217 Script Writing for Business and Industry (3)

Prerequisites: MEDIA ST 2210, MEDIA ST 2212, or consent of instructor. Script writing for training, motivation, education, and other applications. Students will identify and discuss communication problems and solutions in live, slide/tape, video, and film script formats. (Previously COMM 2217)

2218 Public Policy in Telecommunication (3)

Prerequisites: MEDIA ST 1065, or 1110, or consent of instructor. An examination of the structure and operation of domestic, international, commercial and public telecommunication. Regulatory agencies, both private and public, will be considered in terms of their effect on programming and ownership. (Previously COMM 2218)

2220 Promotion Essentials (3)

Prerequisites: MEDIA ST 1100 or consent of instructor. Explains the difference between advertising and sales promotion and why companies use sales promotion. Understand how companies utilize the different sales promotion techniques in each medium. Emphasis on the key sales promotion tools used by companies.

2228 Public Relations Writing (3)

Same as ENGL 3280. Prerequisite: ENGL 3140 or equivalent. An introduction to the process of planning, producing, and evaluating written public relations messages. Writing assignments include media releases, letters, memos, position papers, background papers, brochures, and reports and proposals.

2271 History of American Film (3)

Prerequisites: MEDIA ST 1070 or consent of instructor. History of American Film from the late nineteenth century to the present.

2272 Contemporary Cinema (3)

Prerequisites: MEDIA ST 1070 or consent of instructor.
History of World Cinema from the 1940s to the present day.

2275 Introduction to International Cinema (3)

Prerequisites: MEDIA ST 1070 with a grade of C or better.
This course provides an understanding of the art and history of international cinema; and helps to better understand film and filmmakers' intentions as well as the culture in which the film was produced. Films from Europe, Asia, South America, Africa and Australia will be examined. The artistic, technical, historical and social significance of these films, as well as their impact upon American cinema, will also be studied.

2500 Introduction to Comparative International Media Systems (3) [CD]

Prerequisites: None. This course introduces students to various media systems and theories around the world. It examines similarities and differences in media history, structures, and regulatory processes of developing countries, focusing on the dominant culture(s) of non-Western regions. It also provides a framework for understanding and analyzing the cultural differences among global media systems in Africa, the Middle East, and Asia. In addition, the course examines aboriginal and other development media. The course fulfills the cultural diversity requirement.

3025 Current Issues in Advertising (3)

Prerequisites: MEDIA ST 1100, junior standing or consent of instructor. Using recent topics in advertising, students will analyze, evaluate, and critique current topics as well as prepare current campaigns for open discussion and presentation.

3035 Advanced Media Theory (3)

Prerequisites: MEDIA ST 1135 or consent of instructor.
This course examines major schools, ownership and theorists in mass media fields. The writings of the Frankfurt School, Marshall McLuhan, Ben Bagdikian, and others will be examined.

3070 International Cinema (3)

Prerequisites: MEDIA ST 1070 & 2275. Understanding international film, its properties, methods, aesthetics, and its impact on culture and society.

3150 Feature Writing (3)

Same as ENGL 3150. Prerequisites: ENGL 1100 or equivalent. Study of freelance and staff-written magazine or newspaper feature articles. Emphasis on relationship between types of publication and article content, research methods, and writing style. Frequent short assignments – journal entries, interviews, library projects, article critiques, and market reports – lead to production of full-length feature articles. May not be taken on the satisfactory/unsatisfactory option. The course counts toward the English Certificate in Writing.

3180 Reporting (3)

Same as ENGL 3180. Prerequisites: English 3140 or equivalent. Theory and practice of reporting news for publication in the print media. Includes one classroom session and one field assignment weekly. Stories must be filed within deadline limits. Writing emphasis is on clarity, conciseness and accuracy. The course counts toward the English Certificate in Writing.

3214 News Writing (3)

Same as ENGL 3140. Prerequisites: ENGL 1100 or equivalent. An introduction to news writing and reporting. Course covers basic components of news reporting principles, and news writing style and structure. Daily writing assignments include coverage of speeches, meetings and interviews, accidents, deaths, courts, sports, consumer affairs, and government. Emphasis on clarity, accuracy, and speed. The course counts toward the English Certificate in Writing.

3310 Television Production II (3)

Prerequisites: MEDIA ST 2210. Study of advanced theories of television production. Refinement of studio television principles learned in MEDIA ST 2210. Exploration of complex program formats, and advanced non-linear editing techniques. Lab arranged. (Previously COMM 3310)

3313 Advanced Video Editing (3)

Study of advanced non-linear editing techniques, animation, and advanced graphics development. Exploration of state of the art editing formats. Lab arranged. (Previously COMM 3313)

3316 Television News (3)

Prerequisites: MEDIA ST 1113 or 2110. Theory and laboratory practice in the gathering, writing, and delivery of news through television. Lab arranged. (Previously COMM 3316)

3317 Radio and the Recording Industry (3)

Historical development and current status of the recording industry, particularly as it interacts with the broadcast industry. Impact of radio and recording technology on the development of rock and other popular music. (Previously COMM 3317)

3334 Advertising Media Planning (3)

Prerequisites: MEDIA ST 1050. A hands-on study of how to determine an advertising budget, select media and develop a strategic plan. (Previously COMM 3334)

3338 Advertising Techniques (3)

Prerequisites: MEDIA ST 1100. Techniques for creating advertising messages and campaigns to reach target audiences. Practical applications of messages and campaigns will be stressed.

3350 Mass Media History (3)

Prerequisites: MEDIA ST 1050 or 1110. Examination of the social, economic, and political factors contributing to the development of American mass media. Emphasis on significant personalities who helped shape its course; analysis of select critical works. (Previously COMM 3350)

3354 Comparative Telecommunication Systems (3)

Prerequisites: MEDIA ST 1065 or consent of instructor. Historical aspects of various systems of telecommunication throughout the world. Examination of American, Canadian, European Community (EC), and other telecommunication systems. (Previously COMM 3354)

3355 Media Law and Regulation (3)

Prerequisites: MEDIA ST 1050 or 1110. Discussion of laws affecting the mass media. Exploration of problems and issues in legal regulation of media content, ownership, access, and accountability. Discussion of industry self-regulation and the influence of citizens' organizations. (Previously COMM 3355)

3356 Global Media Systems and Trends (3)

Prerequisites: MEDIA ST 1050 or 1110. This course will survey major theories, global trends, and key stakeholders in the field of mass and multi-media. Designed to foster substantive comprehension of issues raised by transnational media corporations and their impact on other cultures and languages. Details about the BBC, CNN, MTV, Euro Disney, and the internet will be major components of the class.

3357 Media Ethics (3)

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

3362 Storytelling (1-3)

Prerequisite: Junior standing or consent of instructor. This course gives an overview of the history of storytelling, types of tales, and appropriate uses for storytelling. The primary emphasis of the course is in developing storytelling skills through preparation, performances, and evaluation.

3370 Documentary Film (3)

Prerequisites: Media St 1070. Consideration of the history, theory, and criticism of nonfiction film. Screening of representative documentary films. (Previously COMM 3370)

3392 Administration of Co-curricular Activities (3)

Prerequisites: Junior Standing or consent of instructor. A survey of skills required to administer the various co-curricular activities associated with teachers in the secondary schools, such as theatre performances and mass media centers.

3394 Internship in Journalism (3-6)

Prerequisites: Senior standing, with at least 12 hours of course work in journalism, mass communication; an overall GPA of at least 3.0; consent of instructor; open to Media Studies majors only; not open to students who have any delayed grades. Practical work with an off-campus newspaper, magazine, or other news organization, supervised by a journalism professional in consultation with a faculty member. This course may be repeated for up to 6 credit hours. (Previously COMM 3394)

3395 Internship in Advertising (3-6)

Prerequisites: Senior standing, with at least 12 hours of course work in television, film video; an overall GPA of at least 3.0; consent of instructor; open to Media Studies majors only; not open to students who have any delayed grades. Practical work at an off-campus advertising agency, supervised by a professional in consultation with a faculty member. This course may be repeated for up to 6 credit hours.

3396 Internship in Radio (3-6)

Prerequisites: Senior standing, with at least 12 hours of course work in radio, broadcasting; an overall GPA of at least 3.0; consent of instructor; open to Media Studies majors only; not open to students who have any delayed grades. Practical work at an off-campus radio station, supervised by a professional in consultation with a faculty member. This course may be repeated for up to 6 credit hours. (Previously COMM 3396)

3397 Internship in Television/Film (3-6)

Prerequisites: Senior standing, with at least 12 hours of course work in television, film, video; and overall GPA of at least 3.0; consent of instructor; open to Media Studies majors only; not open to students who have any delayed grades. Practical work at an off-campus television, film or video organization, supervised by a television, film or video professional in consultation with a faculty member. This course may be repeated for up to 6 credit hours. (Previously COMM 3397)

3398 Internship in Media Studies (3-6)

Prerequisites: Senior standing, with at least 12 hours of course work in television, film, video, journalism, broadcasting, mass communication; an overall GPA of at least 3.0; consent of instructor; open to Media Studies majors only; not open to students who have any delayed grades. Practical work at an off-campus agency, supervised by a professional in consultation with a faculty member. This course can be repeated for up to 6 credit hours.

3990 Directed Readings in Media Studies (3)

Prerequisites: Consent of Instructor; not open to students who have any delayed grades. Supervised independent study involving readings, conferences, papers, in one of the department's disciplines: advertising, radio, television, film, or journalism.

4040 Special Topics in Media Studies (1-6)

Prerequisites: Junior, Senior, or graduate standing and consent of instructor. Special topics with subject matter dealing with current issues (theoretical or applied) in the discipline of media studies. Since the topics of Media Studies 4040 may change from semester to semester, the course may be repeated for up to 12 credit hours.

4050 Media Studies and Education Topics (3)

Prerequisites: Senior or Graduate standing. A critical examination of issues concerning media and education. Special topics may include the classification and typology of media studies as it pertains to education, the relationship of differing cultural systems as defined by media and education, or the impact of distance learning via differing media on formal education systems. This course may be repeated for credit with permission of instructor and advisor.

4335 Seminar in Applied Media Studies Research (3)

Prerequisites: MEDIA ST 1135 or consent of instructor. This course explores the use of media concepts, theories, methods and designs in applied field settings with an emphasis on original research.

Graduate School

Bachelor of Interdisciplinary Studies

The Bachelor of Interdisciplinary Studies degree (B.I.S.) provides a flexible, individualized program of study for the self-directed adult learner. The area of study is developed by each student with advisement by faculty.

Oversight of the B.I.S. degree is the responsibility of the Interdisciplinary Studies committee, composed of faculty from Arts and Sciences (Humanities, Social Sciences, and Natural Sciences), Business, Education, Engineering, Fine Arts and Communication, and Nursing. The Interdisciplinary Studies Committee will be convened and supported by the Office of the Provost.

Admission Requirements for the B.I.S. Program

Candidates for the B.I.S. degree must complete an application for admission to the program. Applications must be approved by the Interdisciplinary Studies Committee. The appropriate College to grant the student's degree will be determined by the Interdisciplinary Studies Committee.

- Students must have well-designed, coherent programs of study that are structured to meet the student's unique educational goals, and should not be readily available under any other UM-St. Louis degree program.
- Students must have demonstrated the equivalent of academic proficiency required for any other undergraduate degree at UMSL.

Degree Requirements for the B.I.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*.

Area of Study

In consultation with faculty and staff advisers, students will carry out an area of study of at least 36 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 area of study should contribute to an advanced level of academic competence and achievement.

The program must be approved by the faculty adviser, and Interdisciplinary Studies Committee. Students and advisers will periodically review the program and make appropriate modifications when necessary.

Hour and Grade Requirements

The degree requires completion of 120 semester hours with a 2.0 campus grade point average overall and in the area of study. No more than 30 hours must be taken in one department. 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 UMSL, of which 18 hours must be in the area of study and completed after admission to the B.I.S. 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).

Supervised Professional or Service Internship and Independent Research

Credit not exceeding 6 hours may be earned for department-approved professional internship, service internship, or independent research. 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. Students must submit a written report approved by the supervisor upon completion of the projects or activities.

Public Policy Administration

Faculty

Brady Baybeck, Associate Professor of Public Policy Administration and Political Science, Director of Public Policy Administration
Ph.D., Washington University

Glen H. Cope, Professor of Public Policy Administration and Political Science, Provost and Vice Chancellor for Academic Affairs

Ph.D., Ohio State University

E. Terrence Jones, Professor of Public Policy Administration and Political Science

Ph.D., Georgetown University

Carol W. Kohfeld, Professor Emeritus of Public Policy Administration and Political Science

Ph.D., Washington University

George J. McCall, Professor Emeritus of Public Policy Administration and Sociology

Ph.D., Harvard University

Donald Phares, Professor Emeritus of Public Policy Administration and Economics

Ph.D., Syracuse University

Lana Stein, Professor Emeritus of Political Science and Public Policy Administration

Ph.D., Michigan State University

Anne E. Winkler, Professor of Public Policy Administration and Economics

Ph.D., University of Illinois

Deborah B. Balsler, Associate Professor of Public Policy Administration and Business Administration

Ph.D., Cornell University

Andrew D. Glassberg, Associate Professor of Public Policy Administration and Political Science

Ph.D., Yale University

Jean Germain Gros, Associate Professor of Public Policy Administration and Political Science

Ph.D., University of California-Berkeley

Nancy T. Kinney, Associate Professor of Political Science and Public Policy Administration, Academic Director of Nonprofit Management & Leadership Program

Ph.D., University of Colorado at Denver

James M. Krueger, C.P.A., Assistant Professor of Public Policy Administration and Accounting, Vice Chancellor of Managerial and Technology Services

D.B.A., Indiana University

John E. McClusky, Affiliate Associate Professor Emeritus of Public Policy Administration and Political Science

Ph.D., University of California-Berkeley

Todd Swanstrom, E. Des Lee Professor of Public Policy Administration, Professor of Political Science

Ph.D., Princeton University

Mark Tranel, Research Associate Professor of Public Policy Administration, Director of Public Policy Research Center

Ph.D., St. Louis University

David Laslo, Research Assistant Professor of Public Policy Administration, Director of MIDAS, Public Policy Research Center

Ph.D., University of Missouri-St. Louis

William Winter, Research Assistant Professor of Public Policy Administration, Research Specialist, Public Policy Research Center

Ph.D., University of Missouri-St. Louis

General Information

The University of Missouri-St. Louis' Public Policy Administration (P P ADM) program has three components: the Master of Public Policy Administration (MPPA) degree program, the Nonprofit Management and Leadership Program, and the Local Government Partnership.

The Master's Program in Public Policy Administration is an interdisciplinary program designed to prepare students for managerial and policy analysis positions in the public and nonprofit sectors or in organizations having substantial interaction with the public and nonprofit sectors. The program is a unit of the Graduate School and is accredited by the National Association of Schools of Public Affairs and Administration. Core faculty joint appointments are in public policy administration and disciplines such as economics, political science, sociology, or business administration. The program includes courses in policy analysis, public administration, management, budgeting, and economics in the core curriculum. The University of Missouri-St. Louis' MPPA program differs from existing programs available in the Missouri-Illinois region in its interdisciplinary nature and emphasis on the development of analytic and administrative skills. It is designed to meet the needs of prospective full-time students, as well as those who wish to earn a degree 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, to the Public Policy Research Center, and to the Center for International Studies. The PPA program serves as an editorial home of the *American Review of Public Administration*.

The full facilities of Campus Computing and the Laboratory for Quantitative Analysis are available. UMSL is a member of the Inter-University Consortium for Political and Social Research.

Admission Requirements

Applicants to the MPPA program must have a minimum GPA of 3.0 for admission to the Graduate School as explained in the Graduate Study section of this *Bulletin*. Students entering the MPPA program may be required to display proficiency in college algebra.

Prerequisites

Students must demonstrate competency in computer-based applications, including spreadsheets, databases, and internet applications. These competencies must be demonstrated in the first semester of the degree program by completing a computer proficiency examination.

Degree Requirements

The MPPA degree consists of 40 credit hours, 28 of which are taken as part of the core curriculum and 12 that are electives. Students who complete the degree must demonstrate the following:

- Design, research, write and defend analyses of substantive public policy problems and/or potential solutions
- Use data and sophisticated analytic tools (qualitative and quantitative) to conduct research in public policy and administration
- Understand the policy and internal/external environments of public and nonprofit organizations
- Develop expertise in a substantive area of public policy administration

Core Curriculum

All candidates for the MPPA degree must complete 28 hours in the core curriculum sequence composed of the following public policy administration courses:

Administration

6400, Proseminar in Public Policy Administration
6600, Organizational Behavior and Administrative Processes

Budgeting

6180, Governmental Budgeting and Financial Control

Economics

6080, Microeconomics for Policy Analysis
6210, Public Sector Microeconomics

Policy Analysis

6000, Introduction to Policy Analysis
6900, Cases in Public Policy Administration

Statistics and Applications

6010, Introduction to Policy Research
6750, Introduction to Evaluation Research Methods

Exit Project

6990, Exit Project Research

A thesis is not required to complete the program. However, writing is an important component of the degree, and students will complete written analyses as part of their course work and/or internships. There is also a one credit hour exit project, PP ADM 6990, taken in the final semester. This exit project is a written analysis of a public policy

administration problem, and is defended in an oral examination.

P P ADM 6000 should be taken at the beginning of the program. It is strongly recommended that P P ADM 6010 and P P ADM 6080 be taken early. P P ADM 6900 is a capstone course and must be taken at the end of the program, usually in conjunction with P P ADM 6990.

Students may select one of four emphasis areas in which to concentrate their advanced studies: (1) managing human resources and organizations, (2) policy research and analysis, (3) local government management, (4) nonprofit organization management. Students may also select an individualized emphasis area in consultation with their advisor and with approval of the Director.

Prior to the completion of 15 hours in the MPPA program, students should identify an emphasis area. In each of the emphasis areas students may be able to substitute another course for a specified elective, with the MPPA Director's approval. Specific requirements for each emphasis area are as follows:

1) Managing Human Resources and Organizations

a. Required (3 hours)

P P ADM 6490, Human Resources in the Public Sector

b. Electives (9 hours) chosen from:

MGMT 5611, Advanced Organizational Behavior and Administrative Processes

MGMT 5624, Organizational Training

ECON 5400, Labor Economics

P P ADM 6680, Negotiating Workplace Conflict

POL SCI 3470, Collective Bargaining

P P ADM 6950, Internship – 3 hours (in assignment relevant to emphasis area)

2) Policy Research and Analysis

a. Required (3 hours)

POL SCI 6402, Intermediate Techniques in Policy Research

OR ECON 4100, Introduction to Econometrics

b. Electives (9 hours) chosen from:

POL SCI 6403, Advanced Techniques in Policy Research
OR

ECON 4110, Applied Econometrics

ECON 3510, Public Finance: State and Local

ECON 4550, Natural Resource Economics

ECON 4160, Geospatial Economic Analysis

ECON 6760, Health Economics

ECON 5400, Labor Economics

ECON 5760, Health Economics

ECON 5900, Advanced Topics in Economic Analysis

POL SCI 6404, Multi-Method Research

POL SCI 6414, Topics in Public Policy Analysis

POL SCI 6422, Law, Courts, and Public Policy

SOC 4040, Survey Research Practicum OR

SOC 5432, Survey Research Methods

P P ADM 6950, Internship (in assignment relevant to the emphasis area)

3) Local Government Management

*a. Required (6 hours)

P P ADM 6340, Seminar in City Administration OR

P P ADM 6350, Issues in Urban Management

AND EITHER

POL SCI 6470, Proseminar in Urban Politics OR

POL SCI 6471, Seminar in Urban Politics

b. Electives (6 hours) chosen from:

P P ADM 4940, Leadership and Management in Nonprofit Organizations

P P ADM 6490, Human Resources in the Public Sector

P P ADM 6680, Negotiating Workplace Conflict

ECON 4500, Public Finance: State and Local

ECON 5700, Regional and Urban Economics

POL SCI 6432, Intergovernmental Relations

P P ADM 6950, Internship (in assignment relevant to emphasis area)

* For Local Government Management specialization, courses not taken to fulfill "required 6 hours" may be taken as electives (s).

NOTE: Students interested in careers in local government management are strongly encouraged to take PP ADM 6490, Human Resources in the Public Sector, as one of their electives.

4) Nonprofit Organization Management and Leadership

a. Required (9 hours)

P P ADM 4911, 4912, 4913, Management Issues in Non-Profit Organizations: Staff Management Issues; Legal Issues; Financial Issues

P P ADM 4940, Leadership and Management in Non-Profit Organizations

P P ADM 4960, American Philanthropy and Non-Profit Resource Development

b. Electives (3 hours) chosen from:

P P ADM 6490, Human Resources in the Public Sector

P P ADM 6550, Strategic and Program Planning for Nonprofit Organizations

BUS AD 3451, Accounting for Governmental and Nonprofit entities

BUS AD 5100, Managerial Communication

BUS AD 5700, Contemporary Marketing Concepts

BUS AD 5900, Public Policies Toward Business

PSYCH 7412, Social Psychology

P P ADM 6680, Negotiating Workplace Conflict

P P ADM 6950, Internship (in assignment relevant to the emphasis area)

Individualized Emphasis Area

Prior to the completion of 15 hours in the MPPA program, the student must present a proposal for 12 hours of specific coursework for approval by the MPPA faculty. The 12 hours must include P P ADM 6950, Internship (in an assignment relevant to the emphasis area) unless the student has significant public or nonprofit sector experience.

Internships

There currently exists a need for well-trained policy administrators and analysts. Frequent contact is maintained with public and nonprofit practitioners and public officials in the St. Louis metropolitan area, providing valuable input for program development, creation of a wide variety of internship possibilities, and assistance with a vigorous placement program for MPPA graduates. Interns may be placed in planning agencies, city managers' offices, administrative departments, or budgeting offices.

An internship is required for students without substantial experience in the public or nonprofit sectors. MPPA students employed in public agencies can receive 3 hours of credit for internships in those agencies. To do so, students must develop, in consultation with their advisors, special research projects outside the scope of their regular employment duties. Credit is granted after successful completion of the project and a written paper at the end of the semester.

Graduate Certificate Program in Nonprofit Organization Management and Leadership

Through the Public Policy Administration Master's 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 plan to work in 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 administration or a graduate degree in another field. Course credits earned in the certificate program can be applied to the MPPA, but a separate application may be required.

A. The graduate certificate in nonprofit management and leadership requires the completion of 18 credit hours. Nine of these are the following core courses:

1. P P ADM 4940, same as POL SCI 4940, SOC, or SOC WK 4940, Leadership and Management in Nonprofit Organizations (3 hours)

2. P P ADM 4911, same as POL SCI and SOC WK 4911, Management Issues in Nonprofit Organizations: Staff Management Issues (1 hour)

3. P P ADM 4912, same as POL SCI and SOC WK 4912, Management Issues in Nonprofit Organizations: Legal

Issues in Governing and Managing Nonprofit Organizations
(1)

4. P P ADM 4913, same as POL SCI and SOC WK 4913, Management Issues in Nonprofit Organizations: Financial Issues

5. P P ADM 4960, same as POL SCI and SOC WK 4960, American Philanthropy and Nonprofit Resource Development (3 hours)

B. Six hours of electives are to be taken from selected courses in accounting, business administration, economics, management, marketing, political science, psychology, public policy administration, and sociology. A student may choose among these courses or other courses approved by the program director. (All Graduate electives must be at the 6000 course level.)

C. Three hours of internship are also required, or 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 nonprofit program director after a review of the student's professional or managerial field experience with appropriate documentation. Students who receive an exemption must take another 3 hours of electives from the selection in area B.

The internship will include learning activities in management and governance processes in nonprofit organizations, as well as a seminar in which students will critically reflect on their field experience with a faculty supervisor.

Requirements of admission to the graduate certificate program are the same as those required for admission to the Graduate School: an undergraduate degree, and a GPA of 2.75 or better.

Graduate Certificate Program in Local Government Management*

Through the Public Policy Administration Master's Program, the University offers a graduate certificate program in local government management for students who are current professional staff, elected or non-elected local government officials or who are interested in pursuing a career in the local government sector. The certificate can be taken by itself or in conjunction with the pursuit of the master's in public policy administration or a graduate degree in another field. Course credits earned in the certificate program can be applied to the MPPA, but a separate application may be required.

A. The graduate certificate in local government management requires the completion of 18 credit hours. Twelve of these are the following core courses:

1. P P ADM 6340, Seminar in City Administration OR

P P ADM 6350, Issues in Urban Management (3 hours)
OR

2. POL SCI 6470, Proseminar in Urban Politics OR
POL SCI 6471, Seminar in Urban Politics (3 hours) OR

3. P P ADM 6449, Human Resources Management (3 hours)

4. P P ADM 6180, Government Budgeting and Financial Control (3 hours)

5. POL SCI and SOC WK 4960, Philanthropy and Nonprofit Resource Development (3 hours)

B. Three hours of electives are to be taken from selected courses in, business administration, criminal justice, economics, political science, public policy administration, and sociology. A student may choose among these courses or other courses approved by the program director.

Electives will be chosen from the following:

P P ADM 6340, Seminar in City Administration

P P ADM 6350, Issues in Urban Management

POL SCI 6470, Proseminar in Urban Politics

POL SCI 6471, Seminar in Urban Politics

POL SCI 6440/P P ADM 6400, Proseminar in Public Policy Administration

P P ADM 6449, Human Resources Management

P P ADM 6180, Government Budgeting and Financial Control

P P ADM 4940, Leadership and Management of Nonprofit Organizations

P P ADM/BUS 6680, Negotiating Workplace Conflict

P P ADM 6600, Organizational Behavior and Administrative Processes

ECON 6700, Political Economy of Metropolitan Areas

CRIMIN 6442, Communities and Crime

SOC 5430, Policy Mediation Processes

ECON 6750, The Political Economy of Health Care

POL SCI 6433, Elections, Public Opinion, and Public Policy

*Other courses may be added as deemed appropriate for content.

C. Three hours of internship are also required, or 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 local government program director after a review of the student's professional or managerial field experience with appropriate documentation. Students who receive an exemption must take another three hours of electives from the section in area B. The internship will include learning activities in management and governance processes in local government jurisdictions, as well as a seminar in which students will critically reflect on their field experience with a faculty supervisor.

Requirements of admission to the graduate certificate program are the same as those required for admission to the

Graduate School: an undergraduate degree, and a GPA of 2.75 or better.

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, and the nonprofit sector.

Course Descriptions

4911 Management Issues in Nonprofit Organizations: Staff Management Issues (1)

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

4912 Management Issues in Nonprofit Organizations: Legal Issues in Governing and Managing Nonprofit Organizations (1)

Same as POL SCI 4812 and SOC WK 4912. This course addresses legal issues involved in managing and governing nonprofit organizations. The course will cover the following topics: The Board as steward of the organization; Director and officer liability; tax laws concerning charitable giving; legal issues in managing staff and volunteers (e.g., hiring, evaluating, and terminating employees); Missouri nonprofit law.

4913 Management Issues in Nonprofit Organizations: Financial Issues (1)

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

4940 Leadership and Management in Nonprofit Organizations (3)

Prerequisite: Junior standing. Same as POL SCI 4940, SOC WK 4840, and SOC 4940. 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.

4960 American Philanthropy and Nonprofit Resources Development (3)

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

6000 Introduction to Policy Analysis (3)

Same as POL SCI 6410. Systematic development of a critical/analytic base for dealing with public policy.

6010 Introduction to Policy Research (3)

Same as POL SCI 6401. Procedures for testing explanations, including research design, principles of measurement, probability sampling, methods of data collection, and techniques for analyzing data.

6080 Microeconomics for Policy Analysis (3)

Prerequisites: Graduate student standing. Same as ECON 5010. This course introduces microeconomic analysis of consumers, firms, and government, with an emphasis on policy applications. It assumes no prior training in economics and is appropriate for graduate students in public policy administration, nonprofit management, political science, gerontology, criminology and criminal justice, and other related fields.

6150 Directed Reading and Research in Public Policy (1-10)

Same as POL SCI 6415. Prerequisite: Consent of Instructor. Independent study through readings, reports, research projects, and conferences. May be repeated for credit, provided the subject matter is different.

6170 Income and Pension Policy for the Aged (3)

Prerequisite: Graduate standing or consent of instructor. Same as POL SCI 6417, GERON 6417, and SOC WK 6417. (MSW students normally take the social policy foundation course prior to enrolling in this course.) 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.

6180 Governmental Budgeting and Financial Control (3)

Prerequisite: BUS AD 5400. Same as BUS AD 5450. 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.

6210 Public Sector Microeconomics (3)

Prerequisites: ECON 3001, or BUS AD 5001, or P P ADM 6080. Same as ECON 5500. 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.

6340 Seminar in City Administration (3)

This course provides an overview of the working environment of a city administrator and is jointly sponsored by the local city managers association. Professional city personnel make presentations to the students on six major topics: political structure, organizational structure, service delivery, finance, personnel policies and practices, and leadership. The course provides direct observation of city council meetings, visits to various city facilities, exposure to different philosophies and styles of city management, and provides students a chance to assemble facts, evaluate options, and present policy recommendations for real problems that local administrators face.

6350 Issues in Urban Management (3)

Designed to evaluate management issues that confront managers in local government from a political perspective. The format will include an intense review and discussion of original case studies from actual local government situations. The specific focus of this course will vary. Course may be repeated.

6400 Proseminar in Public Administration (3)

Same as POL SCI 6440. Examination of major approaches to analyzing public policies and their administration. Emphasis is on the effects of administrative organization and procedures on policy decisions and their impacts. Specific topics may include administrative accountability, intergovernmental relations, public/private interaction, implementation processes, bureaucratic expertise, the legal environment of public policy administration, and public service and merit issues.

6430 Health Care Policy (3)

Prerequisites: Graduate standing and consent of instructor. Same as POL SCI 6443, GERON 6443, SOC 6443 and SOC WK 6443. (MSW students will normally take the social policy foundation course prior to enrolling in this course). Survey course examining current issues in health policy that

face the nation. Policies are placed in a historical context to show how issues have been influenced by different political and economic conditions. Secondary consequences and limitations of current trends in health policy are explored.

6444 Seminar in Public Policy and Aging (3)

Prerequisites: Consent of instructor. Same as GERON 6444, POL SCI 6444 and SOC 6444. The study of specialized issues and methods related to federal, state, and local policies that affect the elderly. Potential areas to be covered include housing, taxation, mental health, transportation, etc. May be repeated for credit, provided the subject matter is different.

6460 Selected Topics in Health Care Policy (3)

Prerequisite: Consent of instructor. Same as POL SCI 6446 and SOC 6446. The study of specialized issues and methods relating to health care policy. May be repeated for credit, provided the subject matter is different.

6490 Human Resources in the Public Sector (3)

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

6550 Strategic and Program Planning for Nonprofit Organizations (3)

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

6600 Organizational Behavior and Administrative Processes (3)

Same as MGMT 5600. The theoretical and research contribution of the behavioral sciences to management and administration are examined and applied to selected organizational situations. Areas to be considered from the standpoint of both individual and organizational performance are communication, motivation, conflict, decision making, goal setting, leadership, organizational design, climate, development, and control. Utilizing a systems perspective, the course attempts to develop in each student an ability to analyze and solve organizational problems.

6680 Negotiating Workplace Conflict (3)

Prerequisites: P P ADM/MGMT 5600, and Graduate Standing. Same as MGMT 5612 and SOC 5451. Examines conflict and cooperation between individuals, groups, and organizations over the control of work. A central theme is how this conflict is expressed, controlled, and resolved. Students will participate in exercises to learn the basics of two-party negotiations.

6750 Introduction to Evaluation Research Methods (3)

Prerequisites: At least one course in Research Design and Statistics at the graduate level. Same as PSYCH 5475, SOC 5475, and CRIMIN 5475. 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.

6800 Management Information Systems (3)

Prerequisite: None. (Same as INF SYS 5800). This course provides an overview of the established and contemporary issues related to information systems within organizations. Topics include the practices and tools associated with topics such as the management of IS-based investment projects, the design and implementation of IS, the alignment of IS strategy with organizational strategy, information security and privacy, and gaining a competitive advantage through IS.

6900 Cases in Public Policy Administration (3)

Prerequisites: 24 hours of public policy administration courses, at least 15 of which are in core courses. This capstone course intensively analyzes public policy administration cases drawn from a variety of issues and settings.

6950 Internship (3)

Independent study involving work with an appropriate public, private, or nonprofit agency.

6990 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.

Pierre Laclède Honors College

The Pierre Laclède Honors College mission is to enrich the educational experience of a select group of highly motivated and intelligent undergraduates. With this in mind, it enrolls students who are ready to accept academic challenges and become creatively involved in the learning process.

The college has a unique structure and identity. Unlike the university's other colleges, it has no academic departments and it grants no degrees. Instead, it brings together a cross section of students and teachers in a special curriculum, designed to meet students' general education and other breadth of study requirements.

- A four-year program for new freshmen that extends over a student's entire undergraduate career;
- A two-year program open to a select third-year students who are either continuing at or have transferred to the university.
- Honors College courses are generally taught seminar style, with a stress on reading, small group discussion, and writing.

Faculty

Honors College instructors are drawn from university faculty in all academic divisions but mainly from the "traditional disciplines" of the Arts, Humanities, Social Sciences, and Sciences. These teachers share a desire to work closely with intellectually curious, high-achieving students. Faculty design courses directed toward such an audience and based on small discussion seminars. Thus the honors faculty grows each year as new faculty join the honors project. Their talents add to the Honors College's rich instructional pool of more than 100 regular and full-time faculty, many of whose teaching and scholarship have been singled out for special awards.

In addition, the Honors College has seven full-time academic faculty members whose responsibilities (beside instruction) include admissions, student advice, and curricular design. These faculty are:

Robert M. Bliss, Associate Professor, Dean
Ph.D., University of Wisconsin-Madison
Nancy Gleason, Teaching Professor, Associate Dean and
Director of Writing
M.A., University of Missouri-St. Louis
Kimberly Baldus, Associate Teaching Professor
Ph.D., Northwestern University
Birgit Noll, Associate Teaching Professor
M.A., Washington University in St. Louis
Daniel Gerth, Assistant Teaching Professor
M.A., University of Missouri-Columbia
Chad A. Hankinson, Assistant Teaching Professor
M.A., University at Buffalo, SUNY
Gerianne Friedline, Lecturer

M.A., University of Missouri - St. Louis

Honors College students are highly qualified and motivated individuals from a broad range of public and private secondary schools and colleges. They enter the college with diverse backgrounds and interests and remain part of it while simultaneously enrolling in classes and pursuing bachelor's degrees in other academic divisions of the university.

Honors Students

Most honors students major in traditional liberal arts disciplines spanning the humanities, social sciences, mathematics, and natural sciences, but well over a third use their undergraduate education to prepare for careers in business, education, nursing, or engineering. Whatever their majors, most Honors college students plan to go on to graduate study or professional schools, although a significant number successfully seek employment immediately after graduation. Honors faculty and staff provide advice and guidance in both course choice and career plans.

The Honors College Writing Program

Both two and four year programs include participation in the Honors College writing program, Writing through the Curriculum, which involves writing in most honors seminars as well as formal courses in composition (including *at least* one of **HONORS 1100 and 3100 or 3160**) and informal consultations with the director of the writing program. In the final year, this culminates in the compilation of a personal Honors College writing portfolio (**HONORS 4100**).

Independent Study Requirement

All Honors College students, whether in the four-year or the two-year program, must fulfill a 6-credit-hour independent study requirement. This can be met in several ways, including supervised research, guided reading, internships, and in many cases capstone courses in the major. Additional financial support is available for supervised undergraduate research projects in all majors.

Four-Year Program (40 credit hours total):

Approximately one-third of the 120 hours honors students earn toward graduation are taken in the Honors College or under its auspices. Most of these credits are associated with a sequence of honors courses designed specifically for the college, the majority of which are taken during the first two years. During this period, these students fulfill virtually all of the university's general education requirements, usually in innovative ways. In their junior and senior years, honors scholars also may earn honors credit for work done within their major fields, work which includes the possibility of internships, independent study projects, and advanced undergraduate research.

First Year

Students take **HONORS 1100, 1200, and 1201**, and one course each from the Western Traditions and Non-Western

Traditions seminar series. Students may take a seminar from the American Traditions series as an elective or in place of the Western Traditions seminar. *

1100, Freshman Composition

1200, Freshman Symposium: Cultural Traditions I

1201, Freshman Symposium: Cultural Traditions II

1110-1150, The Western Traditions Series

1210-1250, The American Traditions Series (elective as an alternative to Western Traditions)

1310-1350, The Non-Western Traditions Series

Second Year (6 credit hours):

Scholars take two of the following Honors classes:

2010, Inquiries in the Humanities

2020, Inquiries in the Fine and Performing Arts

2030, Inquiries in the Social and Behavioral Sciences

2040, Inquiries in Mathematics and Computing

2050, Inquiries in the Sciences

2060, Inquiries in Business

2070, Inquiries in Education

2080, Inquiries in Nursing

Honors students in the four-year program who take **HONORS 3100** ("Writing the City") or **HONORS 3160** ("Writing in the Sciences") may present it for their honors certificate as one of their 3000-level seminars. They may also, depending on their major, present it to meet their graduation requirement for Junior level composition.

During the first two years, honors scholars will take additional course work in other areas, such as mathematics, natural science, foreign language, and major prerequisite classes to satisfy various university, Honors College, and specific degree requirements.

Third and Fourth Years (19 credit hours):

Honors scholars in the four-year program take at least four seminars (12 credit hours) from the Advanced Seminar (3010-3080) and/or Research Seminar (3510-3580) series. They may take more where this is compatible with their major and/or minor requirements. In addition, honors students do 6 credit hours in independent study projects, normally in or closely related to their major field. These independent study projects normally carry credit in the major, but can be done as Honors College independent study or research projects (**HONORS 4900-4990**). During the final year, students also take **HONORS 4100**, a capstone for the Honors College writing program.

Two-Year Program (22 credit hours total):

Scholars in this program will take a combination of Honors College courses and also earn honors independent study credit (usually for work done in their major fields). The 22 credit hours must include 6 credits of independent study, as for the four-year program.

Third Year (9 credits):

During the first year of the two-year program, students take three honors seminars, including **3100**, Writing the City or

HONORS3160, Writing in the Sciences; one course from the **Inquiries** series (2010-2080; one course from either the **Advanced Seminar (3010-3080)** or **Research Seminar (3510-3580)** series. In addition, 3 credit hours of independent study may be taken during this year, normally in or closely related to their major.

Fourth Year (7 credits):

The final year of the two-year program involves three courses chosen from the 3000 and 4000 level options, including **4100**, the honors writing portfolio (1 credit hour) and at least one course chosen from the **3010-3080** or **3510-3580** series. In addition, students will complete their independent study requirements with 3 or 6 hours of project, internship, or research work.

Honors and Nursing; Honors and Engineering

Because of the extensive professional requirements for both Nursing and Engineering, the Honors College has, with the support of the relevant faculties, created special programs for Nursing and Engineering Majors who wish to pursue the Honors College certificate. Both programs feature reduced Honors College credit hour requirements but retain the core of the Honors program and give students ample opportunities to experience interdisciplinary inquiry, seminar-based learning, and take part in the Honors College Writing Program.

Honors and the Bachelor of Liberal Studies (BLS)

Pierre Laclède Honors College students who wish to present the honors Certificate as a minor for the BLS must complete the Honors Capstone (Honors 4100, one or two credit hours) and also direct three to six hours of their Honors independent study requirement to work demonstrably relevant to their BLS program. Student should consult the BLS faculty advisor in the Honors College about this requirement. For other information on BLS requirements, please refer to the "Minors in Interdisciplinary Studies" section under the College of Arts and Sciences.

Pierre Laclède Honors College Student Learning Outcomes. Both four- and two-year programs share the same learning agendas:

1. Through coursework comparing and contrasting diverse cultural viewpoints, academic disciplinary approaches and information, Honors students will demonstrate the ability to synthesize knowledge from various perspectives.
2. Honors students will exhibit the ability to communicate effectively in speech and writing:
-by speaking in groups to present, reflect on and evaluate information and perspectives.
-by completing the written assignments required in all Honors courses that focus on various perspectives, audiences and disciplinary approaches(demonstrating effective writing that

employs correct diction, syntax, usage, grammar and mechanics.

3. Honors students will demonstrate skills in higher-order thinking, valuing and managing information:
 - by exhibiting the ability to distinguish among opinions, facts and inferences; by identifying underlying or implicit assumptions; by making informed judgments; and by solving problems through applying evaluative standards.
 - by locating, accessing, synthesizing and annotating information from print, electronic, and other sources; by distinguishing between scholarly and non-scholarly sources in preparation for higher-order thinking.
 - by analyzing and synthesizing information from a variety of sources, applying the results to resolving complex situations and problems, and defending conclusions using relevant evidence and reasoned argument.
 - by utilizing cultural, behavioral, and historical knowledge to clarify and articulate a personal value system while recognizing the ramifications of personal value decisions on the self and others.
 - by identifying conflicts within and between multiple perspectives and value systems; by recognizing and analyzing ethical issues in a variety of contexts; and by employing standards of logic to formulate a reasonable position among multiple perspectives.
4. Honors students will select and participate in Honors courses in various disciplines and will demonstrate essential skills and approaches relevant to those disciplines:
 - Students participating in Honors courses in disciplines such as the social sciences, life and physical sciences that rely upon the understanding of fundamental mathematical concepts and their applications will display a level of quantitative literacy that would enable them to understand and analyze quantitative data, draw conclusions, and solve problems.
 - Students participating in Honors courses in the social and behavioral sciences will exhibit understanding of themselves and the world around them through the study of the content and methodologies used by historians and social and behavioral scientists to discover, describe, explain, and predict human behavior and social systems; they will demonstrate understanding of the diversities and complexities of the cultural and social world, past and present, and come to an informed sense of self and others.
 - Students participating in Honors courses in the humanities and fine arts will exhibit understanding and critical analysis of the ways in which people have addressed their condition through literature

and art; they will demonstrate their understanding of these cultural works and their historical circumstances; they will formulate aesthetic judgments of these works.

-Students participating in Honors courses focusing on life and physical sciences will demonstrate knowledge of scientific principles, research procedures and empirical methods of scientific enquiry; they will display their understanding of how scientific discoveries affect and are affected by theoretical views of the world and human history.

5. Honors students will complete specific Honors requirements designed to develop their awareness of career and advanced study opportunities:
 - by participating in internships, independent study and undergraduate research to develop and demonstrate advanced knowledge in a discipline, professional skills, and greater understanding of career and educational goals.
 - by creating an Honors Writing Portfolio that demonstrates the ability to assess their writing skills and development; by devising and revising documents for employment searches or graduate school applications to enhance their ability to formulate and pursue specific career goals.

Other Academic Features and Requirements

Pass/Fail

The satisfactory/unsatisfactory option does not apply to any course work undertaken for Honors College credit.

Admission and Retention

To be considered for admission to either the two-year or four-year honors program, a candidate must file a special Honors College application as well as a general university application. These application forms and additional information concerning scholarship and stipend awards, general eligibility guidelines, and the admissions process are available from the Honors College administrative office at (314) 516-5243 or from the University Admissions Office. See also the Honors College website at <http://www.umsl.edu/divisions/honors>.

Scholarships and stipends

Every new freshman or transfer student admitted in good standing to the Honors College receives academic scholarship support. Scholars continue to receive these awards as long as they meet the criteria associated with their particular scholarship grant.

Good academic standing

To remain in good standing, a student must maintain a cumulative GPA, in all his or her UMSL courses, of at least 3.2, and must continue to meet the requirements of the honors program for which he or she was initially admitted. Unless other arrangements have been made, Honors College

students are also expected to be full time, that is, to register for and satisfactorily complete at least 12 credit hours per semester. Students wishing to enter the Honors College as part-time students, or to change to part-time status, must make prior arrangements with the Honors College dean.

UMSL: an Urban Land Grant Institution

Given its location in St. Louis, and because it is part of an urban land grant university, Pierre Laclède Honors College seeks to encourage awareness of the manifold benefits of pursuing an undergraduate education in a dynamic and varied urban community. This is accomplished partly through the Honors Curriculum through facilitating cultural and other outings in the city, and by encouraging students to include in their academic program courses, research projects, and/or internships which exploit the university's manifold connections with city people and its partnerships with leading city institutions such as the Missouri Botanical Gardens, the Missouri Historical Society, and the Mercantile Library of St. Louis. Many honors students fulfill all or part of their independent study requirements working through such partnerships.

International Study and Other Exchange Programs

Honors students are encouraged to consider a semester's or a year's study at another institution. This can be done through the University's Center for International Studies, which administers exchanges with more than 70 universities in Europe, Africa, Asia, Australia, and South and Central America as well as the Missouri-in-London program. Students not wishing to go abroad may, through the **National Student Exchange**, which is administered for the university by the Honors College, attend any one of more than 100 universities in the United States, Puerto Rico, Guam, and Canada.

Please note that students in the **Honors and International Business** program are normally required to spend their exchange study through the Center for International Studies.

Course Descriptions

Please note that all honors courses are planned to fulfill UMSL graduation requirements, primarily in general education and the state requirement for American history and government. For further guidance on these requirements, please see the university general education matrix.

Selected Honors courses may also meet divisional area study requirements, for instance in international studies or cultural diversity. Please note also that several Honors courses in the 3000 and 4000 levels, can be used to fulfill major, minor, and certificate requirements, where that has been agreed by other divisions or departments of the university.

Honors course lists and descriptions, published each semester before the beginning of the registration period, identify clearly which seminars fulfill these various

requirements. When in doubt, students are urged to consult their Honors College advisor. **Important note:** Unless otherwise indicated, all Honors seminars and courses require students to obtain the consent at the Honors College during registration. In practice, "consent of the dean of the Honors College" means consent of the student's Honors advisor.

1100 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 other courses in the Honors Freshman Year program.

1110-1150 Western Traditions (3)

Prerequisite: Consent of the dean of the Honors College. All Western Traditions seminars will be based on the reading and discussion of works of exceptional importance in the development of western culture and civilization. The works to be discussed in each seminar will follow a central theme (defined by its particular relevance to the traditional academic disciplinary areas of the humanities, arts, social sciences, mathematics, or sciences) but will relate that theme to wider developments in Western Traditions and to the American concept of a liberal education.

1110 Western Traditions: Humanities

1120 Western Traditions: Arts

1130 Western Traditions: Social and Behavioral Sciences

1140 Western Traditions: Mathematics

1150 Western Traditions: the Sciences

Cultural Traditions I and II as 'core' seminars

These symposium seminars (1200 and 1201) are normal freshman year requirements. Each has its own academic agenda, but both are also related – in theme, problem, or subject matter – to Honors composition (1100), Western Traditions (1110-1150), American Traditions (1210-1250), and Non-Western Traditions (1310-1350) seminars.

1200 Freshman Symposium: Cultural Traditions I (3)

Prerequisite: Consent of the dean of the Honors College. This course surveys Western and Non-Western Cultural Traditions from their beginnings until 1800. It will introduce the intellectual traditions of a wide variety of cultures through major works of literature, religion and philosophy.

1201 Freshman Symposium: Cultural Traditions II (3)

Prerequisites: Consent of the Dean of the Honors College. This course surveys Western and Non-Western cultural Traditions from the 1800's to current times. It will introduce intellectual traditions of a wide variety of cultures through major works of literature, religion and philosophy.

1210-1250 American Traditions (3)

Prerequisite: Consent of the dean of the Honors College. Honors seminars in the American Traditions series involve readings and discussion of major importance in the

development of the culture, politics, ideologies, and values which are or have been characteristic of the United States of America. Every American Traditions seminar will cover a broad range of time, and each may include contemporary issues. American Traditions 1230 (Social Sciences) satisfies the American history and government requirement, and any course in the American Traditions sequence may be taken to satisfy one of the core requirements for the American Studies minor.

1210 American Traditions: Humanities

1230 American Traditions: Social and Behavioral Sciences

1240 American Traditions: Mathematics

1250 American Traditions: The Sciences

1310-1350 Non-Western Traditions (3)

Prerequisite: Consent of the dean of the Honors College. Study of Non-Western societies, "traditional" or "modern," offers a reminder that, however defined, "the West" does not encompass the full range of human potentiality whether in terms of culture, values, behavior or ideas. Based on reading of significant primary texts and/or important secondary works, these seminars remind us of the realities of human diversity and provide perspectives on our own world. Non-Western Traditions seminars may be used to satisfy cultural diversity general education requirements.

1310 Non-Western Traditions: Humanities

1320 Non-Western Traditions: The Arts

1330 Non-Western Traditions: Social and Behavioral Sciences

1340 Non-Western Traditions: Mathematics

1350 Non-Western Traditions: The Sciences

1310 Non-Western Traditions Series Humanities (3)

Seminars focus on different topics in the humanities but address themes and problems in non-western cultures that are related to the freshmen core classes (HONORS 1200 and 1201). These topics will be examined in depth through reading discussion, and students will produce formal papers and participate in individual or small group presentations.

1330 Non-Western Traditions Series-Social Sciences (3)

Seminars focus on different topics in the social sciences but address themes and problems in non-western cultures that are related to the freshmen core classes (HONORS 1200 and 1201). These topics will be examined in depth through reading discussion, and students will produce formal papers and participate in individual or small group presentations.

1900 Independent Cross-Cultural Readings (1-3)

This course is an independent readings course centered on cultural interactions. Students will select readings from an approved list of choices related to Western and Non-Western texts. Students will discuss the works with the faculty member online or in person. One formal paper is required for the class with the length relative to the number of credit hours of the course (1-3).

2010-2080 Honors Inquiries (3)

Prerequisite: Consent of the dean of the Honors College. Inquiries seminars focus on the particular contributions academic disciplines can make to relatively broad areas of inquiry, and reading, discussion, writing and where appropriate, laboratory work or field trips will enhance students' understanding of the strengths, frailties, and particular characteristics of one or more disciplinary strategies. Inquiries courses may be used to meet relevant General education requirements. Where special arrangements have been agreed, they can meet more specific departmental and divisional requirements. The course number may be repeated for credit whenever the topic is substantially different.

2010 Inquiries in the Humanities

2020 Inquiries in the Fine and Performing Arts

2030 Inquiries in the Social and Behavioral Sciences

2040 Inquiries in Mathematics and Computing

2050 Inquiries in the Natural Sciences

2060 Inquiries in Business

2070 Inquiries in Education

2080 Inquiries in Nursing

2310 Cultural Diversity in the Humanities (3)

This seminar focuses upon cultural diversity themes, texts, and perspectives within the humanities and meets cultural diversity graduation requirements.

2330 Cultural Diversity in the Social Sciences (3)

This seminar focuses upon cultural diversity themes, texts, and perspectives within the social science and meets cultural diversity graduation requirements.

3010-3050 Advanced Honors Seminar (3)

Prerequisite: Consent of the dean of the Honors College. Open only to Honors College Students and not acceptable for graduate credit. Usually restricted to juniors and seniors, these advanced seminars focus on in-depth study of a significant body of subject matter. The perspective employed will normally be interdisciplinary or multi-disciplinary and will underscore the value of making connections between diverse areas of study. These courses will not usually require specific prerequisites, but may (with the consent of the appropriate department or division) be taken as major or minor courses. The course number may be repeated for credit whenever the topic is substantially different.

3010 Advanced Honors Seminar in the Humanities

3020 Advanced Honors Seminar in the Fine and Performing Arts

3030 Advanced Honors Seminar in the Social and Behavioral Sciences

3040 Advanced Honors Seminar in Mathematics and Computing

3050 Advanced Honors Seminar in the Sciences

3060 Advanced Honors Seminar in Business

3070 Advanced Honors Seminar in Education

3080 Advanced Honors Seminar in Nursing

3100 Honors Advanced Composition: Writing the City (3)

Prerequisite: Consent of the Dean of the Honors College. Enhances critical thinking, research, discussion, and writing skills by focusing on the city of St. Louis and on the specific fields of study of those enrolled in the course. Issues such as depth and development of content, voice, style, tone, correct expression, and research techniques are among the topics emphasized. Students maintain a Commonplace Book of journals, drafts, and creative writings; they also submit a minimum of four formal papers. This course is required for transfer students (two-year Honors Program) and an elective for students on the four-year program. For students on either program, HONORS 3100 meets the Advanced Composition requirement of the university.

3160 Honors Writing in the Sciences (3)

Prerequisites: Junior-level standing. This honors course, designed to meet the needs for students in the science disciplines, will satisfy the campus junior-level writing requirement. This course will stress writing observation reports, academic journals, laboratory reports and a major project suited to the specific area of study of each student enrolled in the class. Instruction will include correct documentation of science sources, synthesis techniques of research information, technology-based research skills and effective laboratory reporting methods. Four formal papers, including one large project, and several informal papers will be required for this challenging course.

3510-3580 Research Seminar (3)

Prerequisites: Consent of the Dean of the Honors College. Open only to Honors College students and not acceptable for graduate credit. Modeled on and for some students affording a preview of the postgraduate or professional research seminar, Honors Research seminars bring students face to face with primary research, as appropriate in the library, the laboratory, and/or field work, utilizing appropriate disciplinary perspectives and secondary reading. These courses may be cross-listed with other advanced courses in appropriate departments/divisions of the university, and as such may carry specific course prerequisites and/or require the specific consent of the instructor.

3535 Research Seminar in the Social and Behavioral Sciences (4)

Prerequisites: Consent of Honors Dean; Consent of Instructor. Course material based on primate behavior, demographics and morphology. Research techniques for ethological and primatological studies, including the design of research protocols, development of data collection methodologies, analysis of morphological and behavioral data, and the scientific description of findings. Students are required to conduct observations of primates at the St. Louis

Zoo and participate in the Undergraduate Research Symposium.

3510 Research Seminar in the Humanities

3520 Research Seminar in the Fine and Performing Arts

3530 Research Seminar in the Social and Behavioral Sciences

3540 Research Seminar in Mathematics and Computing

3555 Research Seminar in the Sciences

3560 Research Seminar in Business

3570 Research Seminar in Education

3580 Research Seminar in Nursing

4100 Independent Portfolio Writing (1-2)

Prerequisites: Senior Status. Students in this course will meet with their instructor on a regular basis to discuss and revise their writing portfolio and write their master resume, career or academic resume, personal statements for graduate school, or other projects for careers on their futures. The course is required to be at least one hour and may be taken for two hours to allow for more personal time and assistance from the instructor.

4900 Independent Study in Honors (1-6)

Prerequisites: Consent of the Dean of the Honors College. Open only to Honors College students and not acceptable for graduate credit. Most Honors students will fulfill their Honors independent study requirements in another department or division of the university. Where this is not possible, and where academic credit seems an appropriate reward for the independent study in question, the project may be undertaken as HONORS 4900, normally as a 3-credit course. This will involve substantial reading, research, and/or field work, and will be supervised by a permanent member of the Honors College academic staff. Completed proposal forms for this course must be submitted to the Honors College no later than the deadline for university registration.

4910 Independent Study (1-6)

Prerequisites: Junior/Senior Standing

This independent study course is designed for students who are participating in an approved, non-paid or paid internship. Often in conjunction with the student's major, the class requires an on-going journal and formal paper varying in length according to credit hours and hours of the internship work. Evaluation is based on the student's work, the completed form by supervisor of internship, and assigned papers and journal.

4915 Honors Independent Off-Campus Internship (1-6)

Prerequisites: Approval from Honors Dean. This course is designed for 1 to 6 hours for an outside internship, approved by the Honors College. The student will not be on campus for the hours of this internship and work for the internship will be submitted online to the Honors Internship Faculty Member.

College Of Nursing

Faculty

Juliann G. Sebastian, Dean and Professor
Ph.D., University of Kentucky
Shirley A. Martin, Dean Emeritus
Ph.D., Saint Louis University
Roberta K. Lee, Hubert C. Moog
Endowed Professor of Nursing,
Dr. P.H., University of Texas-Houston
Jean Bachman, Associate Professor,
D.S.N., University of Alabama-Birmingham
Anne Fish, Associate Professor
Ph.D., University of Michigan-Ann Arbor
Ruth L. Jenkins, Associate Professor
Ph.D., Saint Louis University
Kathleen Borcharding, Assistant Professor
Ph.D., Saint Louis University
Wilma Calvert, Assistant Professor
Ph.D., University of Missouri-St. Louis
Dawn Garzon, Assistant Professor
Ph.D., PNP, University of Missouri-St. Louis
Kuei-Hsiang Hsueh, Assistant Professor
Ph.D., University of Arizona
Dotty Akerson, Teaching Professor
Ph.D., Saint Louis University
Judith Maserang, Teaching Professor,
Ph.D., Saint Louis University
Cynthia Billman, Associate Teaching Professor,
Coordinator, RN-BSN Option
MSN, University of Missouri-Columbia
Susann Farberman, Associate Teaching Professor
M.Ed., PNP, Washington University
Susan Kendig, Associate Teaching Professor
MSN, PNP, University of Missouri-Columbia
Deborah Kiel, Associate Teaching Professor
MSN, Saint Louis University
Sandy Lindquist, Associate Teaching Professor, Director of
the Undergraduate Program
Ph.D., Saint Louis University
Diane Saleska, Associate Teaching Professor
MSN, University of Missouri - St. Louis
Darlene Sredl, Associate Teaching Professor
Ph.D., University of Missouri - St. Louis
Vicky Becherer, Assistant Teaching Professor, Coordinator
of Continuing Education
MSN, Jewish Hospital College of Nursing
Julie Campbell, Assistant Teaching Professor MSN,
University of Missouri-St. Louis
Kathy Lee, Assistant Teaching Professor MSN, Jewish
Colleges of Nursing and Allied Health
Elizabeth Mantych, Assistant Teaching Professor
MSN, Saint Louis University
Jean Nelson, Assistant Teaching Professor Ph.D.,
University of Missouri-St. Louis

Joan Ruppert, Assistant Teaching Professor
MSN, Saint Louis University
Linda Sherman, Assistant Teaching Professor
MSN, Southern Illinois University-Edwardsville
Claudia Valentine, Assistant Teaching Professor
MSN, FNP, University of Texas at Arlington
Yakima Young-Shields, Assistant Teaching Professor
MSN, ANP, University of Missouri-St. Louis
Beth Dudley, Lecturer
MSN, University of Missouri - St. Louis
Amanda Finley, Lecturer
MSN, University of Missouri - St. Louis
Gary Frandsen, Lecturer
MSN, University of Missouri-St. Louis
Chris Recktenwald, Lecturer
MSN, University of Missouri-St. Louis
Chris Spencer, Lecturer and Nursing Lab Assistant
MSN, University of Missouri - St. Louis
Jennifer Taylor, Lecturer
MSN, University of Missouri-St. Louis

General Information

The College of Nursing offers academic nursing programs at the undergraduate and graduate levels. Knowledge and skills needed to complete the professional licensure examination to become a registered nurse are available through a basic baccalaureate option. Nurses who have obtained their basic nursing education through associate degree or diploma nursing programs may fulfill the requirements for the B.S.N. completion option without repetition of previous nursing education. The Master of Science in nursing program offers studies in the roles of nurse educator and advanced practice nursing. The Ph.D. program in Nursing is offered in cooperation with the Schools of Nursing at University of Missouri-Columbia and Kansas City. Admission to the Ph.D. program is available at the post B.S.N. and M.S.N. levels. The Doctor of Nursing Practice program is offered in cooperation with the University of Missouri-Kansas City and prepares students for the highest level of advanced clinical nursing practice.

Undergraduate Studies

The College of Nursing provides course work leading to the Bachelor of Science in nursing (BSN). The program is accredited by the Commission on Collegiate Nursing Education through June, 2010 and approved by the Missouri State Board of Nursing through December, 2009. The undergraduate program offers two means for achieving the bachelor's degree in nursing: studies that are preparatory for completion of the professional nurse licensure examination (pre-licensure track) and advanced placement for the professional registered nurse without repetition of fundamental nursing and clinical courses (RN/BSN track). An accelerated pre-licensure option is available for qualified persons who hold earned degrees in non-nursing fields, or outstanding students who have completed all prescribed general education and science course work. Baccalaureate students meeting admission criteria may participate in the Pierre Laclède Honors College. Students who have been

dismissed from another nursing program are not eligible for admission to the pre-licensure BSN nursing program.

Bachelor's of Science in Nursing – Traditional 4 Year Track Admission

BSN Traditional Admission Criteria

NURSING MAJOR (Pre-clinical)

Students admitted to the nursing major begin by completing all nursing prerequisites and general education coursework.

Admission to the nursing major does not guarantee enrollment in clinical nursing courses unless a student is admitted into the Freshmen Honors Program. In order to be considered for the nursing major students must meet the following criteria:

Freshmen Honors Program

First-time freshmen and applicants with fewer than 24 transferable college credit hours:

- Minimum cumulative G.P.A. of 3.0 on 4.0 scale
- High school class rank in upper ¼ of graduating class.
- Minimum ACT of 24.

Note: Students admitted to the Honors Nursing Program will be guaranteed a space in the clinical major, providing satisfactory academic progress.

General Freshmen Admission Nursing Major (Pre-clinical) Admission Criteria

First-time freshmen and applicants with fewer than 24 transferable college credit hours:

- Minimum cumulative G.P.A. of 2.5 on 4.0 scale
- High school class rank in the upper 1/3 of graduating class
- Minimum ACT of 21

Transfer Admission to Nursing Major (Pre-clinical) Criteria

Applicants with 24 or more transferable college credit hours:

- Minimum 2.5 G.P.A. on 4.0 scale on 24 or more transferable credit hours from an accredited college or university.

Clinical Major Admission Criteria for 4-year Traditional Track

Spaces for the clinical nursing major are assigned on a competitive and space available basis for each admission period. Applicants must meet the following criteria:

- Minimum 2.5 cumulative G.P.A. on 4.0 scale (all attempts of all transferable courses calculated)
- Completion of all prerequisite courses (minimum grade of C-)
- Minimum 2.5 cumulative G.P.A. in Chemistry, Anatomy and Physiology I & II, and Microbiology (first attempt calculated only)
- Required science courses completed within 10 years prior to enrollment

BSN Traditional Application Procedure

To Apply For Nursing Major (Pre-clinical)

First-time freshmen and applicants with fewer than 24 transferable college credit hours, send the following:

- Completed University application
- Official high school transcripts or GED score
- Official ACT or SAT score
- Official college transcripts, if applicable

Applicants with 24 or more transferable college credit hours, send the following:

Completed University application
Official college transcripts

To Apply For Clinical Major in the 4 year Traditional BSN Track

To be considered for the clinical major, students must file a separate clinical major application available through the College's website or Office of Student Services and send it directly to the College of Nursing. Students must complete an application for the Clinical Major during their last semester of enrollment in prerequisite coursework and send the following:

- Completed University application
- Completed College of Nursing Clinical Major application
- Official college transcripts

Application deadlines for the clinical major

To be admitted to the clinical nursing major course all material must be submitted to the College of Nursing, Office of Student services by the following dates:

- Fall admission – February 1st
- Spring admission – October 1st

BSN Accelerated Track (Prelicensure) Accelerated Track Admission Criteria

Degree or transfer pathway to accelerated option criteria include:

- Baccalaureate or degree from a regionally accredited college or university or a minimum of 62 transferable credit hours from a regionally accredited college or university..
- Minimum grade point average of 3.0 on 4.0 scale for students with baccalaureate or higher degree or 3.2 on a 4.0 scale for students not holding a baccalaureate degree.
- Completion of all prerequisite general education and science courses for the major in nursing with grade of C or higher.

- Required science courses completed within 10 years prior to enrollment.
- Application deadlines for the Accelerated track.
- To be admitted to the clinical track that begins in May of each year only, all materials must be submitted to the College of Nursing, Office of Student Services by the following dates:

Early acceptance deadline—September 15th

Regular acceptance deadline—February 1st

For specific information regarding the B.S.N. degree program, contact the Office of Student Services in the College of Nursing at (314) 516-6066 or 1-888-NURSEUM or visit the College's website at <http://www.umsl.edu/divisions/nursing>

Credit by Transfer and Examination

Credit may be granted for selected general studies. See Admission and Application Procedure section in this *Bulletin* for credit information.

Degree Requirements for B.S.N.

The bachelor of science in nursing degree requires comprehensive course work in general education and nursing. Basic undergraduate nursing course work includes theory, on-campus laboratory and clinical activities. Clinical experiences require weekday, evening, and/or weekend commitments. Full-time study in the pre-licensure baccalaureate track can be completed in four academic years. The pre-licensure accelerated track requires full-time study and can be completed in 15 months. The RN/BSN track is offered at selected metropolitan sites, on-campus, and by Internet. Clinical activities in the RN/BSN Program are community-based and may be completed in the student's home community.

Upon completion of the BSN program, students are expected to have achieved the following learning outcomes:

1. Integrate into practice theories and concepts from nursing, the arts, sciences and humanities to provide comprehensive nursing care in a variety of settings.
2. Integrate critical thinking and problem solving in professional practice.
3. Administer competent, compassionate, holistic care to a diverse population of individuals, families, groups and communities.
4. Apply research from nursing and related disciplines to enhance care and guide professional practice.
5. Utilize interpersonal communication, and educational strategies that enhance the quality of personal and professional relationships.
6. Integrate principles of management and leadership in organizing, coordinating, and directing outcome-based professional practice.

7. Assume responsibility and accountability for decisions and actions based on intrapersonal values, ethical and legal obligations, standards of practice and economics.
8. Participate in professional and community organizations to effect societal change.
9. Exhibit motivation and self-direction in activities that contribute to personal, professional and intellectual development.

Satisfactory/Unsatisfactory (Pass/Fail) Grading

Undergraduate nursing majors may not take required prerequisite general education or nursing courses on a satisfactory/unsatisfactory basis.

UNDERGRADUATE DEGREE REQUIREMENTS

General Education Requirements

Nursing majors must complete all general education requirements of the university as outlined in this *Bulletin* (see Undergraduate Studies, General Education Requirements).

In addition to meeting the university's general education requirements, the following prerequisite courses must be completed prior to beginning the clinical major. See a curriculum planning guide for specific courses and proper sequencing.

1) Natural science course work

BIOL 1131, Human Physiology and Anatomy I
BIOL 1141, Human Physiology and Anatomy II
BIOL 1162, General Microbiology
CHEM 1052, Chemistry for Health Professions or equivalent)

2) Behavioral and social science course work

PSYCH 1003, General Psychology
PSYCH 1268, Human Growth and Behavior
ECON 1000, Introduction to American Economy (or equivalent)
Social science elective

3) Humanities

Any Philosophy course (as part of the University's 3 humanities requirement)

4) Nursing

NURSE 1010, Orientation to Nursing
NURSE 2103, Nutrition and Health (or equivalent)
NURSE 2105, Communication in the Nursing Profession (or equivalent)
NURSE 3799, Quantitative Analysis in the Health Sciences (or equivalent)

Nursing Course Requirements

PRE-LICENSURE- 4 year traditional and accelerated tracks

3101, Nursing and Health*
3106, Assessment of Clients in Health and Illness*
3110, Pathophysiological Bases of Nursing Practice
3111, Pharmacotherapeutics in Nursing Practice
3205, Adult Health Nursing I*
3206, Adult Health Nursing II*
3214, Psychiatric Mental Health Nursing*
3215, Nursing of Women and Childbearing Families*
3216, Child and Family Health Nursing*
3804, Ethical and Legal Dimensions of Nursing Practice
3807, Nursing Research
3808, Management and Leadership in Nursing
3817, Introduction to Nursing and Health Informatics
4300, Community Health Nursing*
4310, Senior Synthesis*
Nursing elective (required for 4 year traditional track students)

Students are required to furnish their own transportation to and from campus and clinical agencies. Students must have automobile access for all community experiences through the program.

POST-LICENSURE RN to BSN

The RN to BSN curriculum is designated to be completed in six consecutive semesters and takes two years to complete. The innovative FLEX Program offers flexibility and accessibility in a part-time program. The FLEX Program allows students to choose to complete their BSN online, on campus, or at various satellite sites in the St. Louis area.

Admission Requirements RN to BSN include:

- Admission to the University (see Undergraduate Admission and Application Procedure section in this *Bulletin*).
- Graduate of either an accredited diploma or associate degree program in nursing.
- Evidence of current licensure as a registered nurse with eligibility for licensure in Missouri.
- Cumulative grade point average of 2.5 (4.0 scale) on a minimum of 30 transferable credit hours. (excluding nursing course work)

RN to BSN-C FLEX required nursing courses

3807, Nursing Research (or equivalent)
3808, Management and Leadership in Nursing
3817, Introduction to Nursing and Health Informatics
3900, Dimensions of Professional Nursing
3920, Health Assessment*
4901, Family and Community Nursing*
4905, Values in Professional Nursing
4911, Synthesis in Nursing Practice*

* Includes a laboratory and/or clinical component

Graduate Studies

Master of Science in Nursing

The College of Nursing offers master's degree nursing studies in two functional roles: nurse educator, and advanced practice nurse. Students with master's degrees in nursing who wish to pursue one of the nurse practitioner specializations may complete a Post-MSN graduate certificate option. Our MSN programs are offered cooperatively with the University of Missouri-Kansas City and the University of Missouri-Columbia. All MSN students complete the MSN core curriculum and functional role required courses.

This graduate program offers students two functional roles: 1) nurse educators complete a minimum of 36 credit hours with emphasis in the role of the nurse educator; and advanced practice nurses (APN) complete a minimum of 43 credit hours with emphasis in the role of advanced practice nurse (clinical nurse specialist or nurse practitioner). Advanced practice graduates will be eligible to complete national certifying examinations in their functional role. Current APN roles include Adult Nurse Practitioner, Family Health Nurse Practitioner, Neonatal Nurse Practitioner, Pediatric Nurse Practitioner and Women's Health Nurse Practitioner. Graduates completing the practitioner functional options are eligible for recognition as advanced practice nurses in Missouri. Upon completion of the MSN degree requirements, this degree is awarded by the UMSL Graduate School. Building on baccalaureate nursing education, and on completion of the MSN program or post MSN graduate certificate options, students will be able to:

- Demonstrate integration of advanced knowledge and skills within the context of an advanced professional.
- Provide leadership with interprofessional colleagues engaging strategic partners to improve health care outcomes and patient safety.
- Integrate informatics in the design, implementation and evaluation of population-specific interventions.
- Evaluate research findings to implement and disseminate evidence based professional nursing practice.
- Provide ethically grounded, culturally competent health promotion* with diverse populations.

MSN and Post-MSN Program Requirements

- B.S.N. or M.S.N. from a nationally accredited nursing program
- Minimum cumulative grade point average of 3.0 (4.0 scale)
- Current professional licensure with eligibility for Missouri license
- Successful completion of an undergraduate general statistics course (descriptive and inferential statistics)

- Successful completion of an undergraduate health assessment course or equivalent
- Two letters of reference regarding the applicant's academic potential (NP option)
- Narrative outlining goals (NP option)
- Two years of clinical experience with chosen population are preferred prior to starting clinicals (NP option).
- Computer literacy

Neonatal Nurse Practitioner (NNP) students must also submit:

- Evidence of 2 years of neonatal nursing experience within the last 5 years and a minimum of one year experience in a Level 3 NICU
- Evidence of Neonatal Resuscitation Program certification
- Must reside in the United States

Availability of clinical resources may limit the number of applicants accepted to the practitioner options. Students are required to suggest their own Preceptors for the Nurse Practitioner Clinical Courses N6954 and N6955. Deadline for fall admission is April 1 or July 1. Deadline for spring Admission is October 1.

Degree Requirements

MSN Core Courses (required of all MSN students)

6104, Values and Cultural Diversity in Advanced Practice
6106, Policy, Organization, and Financing of Health Care
6140, Health Promotion Across the Life Span
6111, Theoretical Foundations in Nursing
6112, Nursing Research Methods
6114, Evidenced Based Nursing

Nurse Educator

6309, Role of the Nurse Educator
6320, Learning and Curriculum Development in Nursing
6321, Instructional Strategies in Nursing Education
6952, Synthesis Practicum
EDUC 6410, The Adult Learner
ED REM6707, Classroom Measurement and Evaluation or
ED REM 6709, Educational and Psychological
Measurement

Advanced Practice Nurse (Nurse Practitioner option)

6509, Role of the Clinical Nurse Specialist/Nurse
Practitioner
6518, Pathophysiology for Advanced Nursing Practice
6524, Health Assessment for Advanced Nursing Practice OR
6520, Pharmacology for Advanced Nursing Practice
6739, Adult Primary Care I: Diagnosis & Management in
ANP AND
6740, Adult Primary Care II: Diagnosis & Management in
ANP OR

6741, Family Health I: Diagnosis & Management in ANP
AND
6742, Family Health II: Diagnosis & Management in ANP
OR
6743, Child Health I: Diagnosis & Management in ANP
AND
6744, Child Health II: Diagnosis & Management in ANP
OR
6746, Women's Health I: Diagnosis & Management in ANP
AND
6747, Women's Health II: Diagnosis & Management in
ANP AND
6954, Advanced Practice Nursing: Internship I
6955, Advanced Practice Nursing: Internship II

Post-MSN requirements are tailored to the individual student, depending on past academic work, experience and the student's goals. Upon completion of the post-MSN requirements, a graduate certificate is awarded by the College of Nursing.

Doctor of Nursing Practice (DNP) (Pending Faculty Senate Approval)

The focus of the DNP program is preparation, at the highest level, of leaders in clinical nursing who can improve quality of care for individuals and populations through advanced practice and through improving systems of care. The curriculum is based on national standards for DNP education. The DNP is offered cooperatively with UM-KC and UM-C and is based on the needs of each campus and their communities of interest.

The DNP program is designated for graduates to attain the following program outcomes:

- Generate integrated clinical and translational strategies to improve health care delivery and health outcomes in the region and in complex clinical environments
- Use clinical scholarship and analytical methods in collaboration with multiple disciplines to shape healthcare delivery and policy
- Lead the health care community by providing excellence in advanced clinical nursing practice.

Courses are designed to support nursing science, clinical research, leadership and a specialty area.

Concepts woven throughout the courses include methodologies for translating research into practice, using culturally competent leadership techniques with diverse and underserved populations, advanced nursing practice and clinical decision making, understand organizational systems and change, and policy development. The DNP program is available for currently certified advanced practice nurse practitioners who have completed an accredited MSN degree. This program is administered by the UMSL Graduate School.

Program requirements are listed below and are provisional, pending University Senate approval.

Admission Requirements

The deadline for DNP applications for admission is April 1. Admission may be considered at a later date depending on space.

- Graduation from a MSN program with national nursing accreditation
- GPA of 3.0 or higher
- 2 Reference letters
- An identified preceptor who will mentor the student during clinical practica*
- A proposed DNP project that matches faculty expertise
- Acceptable GRE scores, including writing test
- Graduate level general statistics course
- Interview by invitation
- Evidence of current advanced practice certification and
- Currently practicing in an advanced practice role
- Current advanced practice nursing recognition in Missouri or eligible for recognition as an advanced practice nurse in Missouri.

*Preceptors must be approved by the faculty based on criteria available from the College of Nursing.

The DNP curriculum is divided into 4 general categories:

- Leadership development and change
- Policy
- Practice-focused evaluation/translational research
- Clinical excellence

Degree Requirements

Completion of the DNP program requires the following courses:

- NURSE 7402 Research Institute I (2)
- NURSE 7200 Nursing Science (3)
- NURSE 7211 Biostatistics I (3)
- NURSE 7220 Leadership in Practice (3)
- NURSE 7230 Epidemiology (3)
- NURSE 7240 Health Informatics (3)
- NURSE 7250 Frameworks for Health Care Delivery (3)
- NURSE 7260 Program and Practice Evaluation (3)
- NURSE 7270 Policy Application for Improved Health Outcomes (3)
- NURSE 7291 Clinical Scholarship 1 (3)
- NURSE 7292 Clinical Scholarship 2 (3)
- NURSE 7293 Clinical Scholarship 3 (3)
- NURSE 7299 DNP Seminar (1-3)

Near the end of the DNP program, students will complete a clinically focused project that satisfies the Graduate School dissertation requirements. This project is completed while

the student is enrolled in NURSE 7291, NURSE 7292, NURSE 7293, and NURSE 7299.

Total minimum Graduate Credit Hours 41

Doctor of Philosophy in Nursing (Ph.D.)

The Ph.D. in nursing program at the University of Missouri - St. Louis affords students with academic, clinical, and research resources of the University of Missouri system through a cooperative arrangement with the Schools of Nursing in Kansas City and Columbia. Upon completion of all degree requirements, the Ph.D. degree is awarded by the UMSL Graduate School

The Ph.D. in nursing curriculum is divided into three general categories of knowledge:

- Nursing Theory/Science/Modes of Inquiry
- Quantitative and qualitative research methods
- Philosophical foundations of science

The Ph.D. program is designed for graduates to attain the following outcomes:

- Develop skills and knowledge to establish a program of research and scholarship.
- Design, conduct and disseminate a dissertation that contributes to nursing knowledge.
- Translate nursing research into practice and policy.
- Assume leadership roles in health care by collaborations and partnerships with institutions in the greater St. Louis region. Improve the health care quality of life of individuals/families/communities regionally, nationally and internationally.

Admission Requirements

The deadline for Ph.D. applications for admission is April 1. Admission may be considered at a later date depending on space. Applicants are evaluated based on the following criteria:

- Graduation from a nationally accredited baccalaureate program with 3.2 minimum GPA (4.0) scale. (post-BSN track) OR from a nationally accredited master's program with a 3.5 minimum GPA (4.0) scale. (post-MSN track)
- Satisfactory Graduate Record Examination (GRE) scores
- Two letters of reference
- Original essay on professional goals and research interests
- Interview by invitation

International applicants must meet minimum requirements on tests of written and spoken English (TOEFL, Minimum 550 or better is desired). And, international students must also apply through the International Student Services Office.

Degree Requirements

While each program of study is individualized, Post-BSN students complete a minimum of 72 hours of graduate-level course work. Post-MSN students complete 45 credit hours. A maximum of 30 M.S.N. hours, which support the program of study, are individually evaluated to determine eligibility for the application of candidacy. The following defines the overall structure of the program:

Nursing Theory/Science/Modes of Inquiry

Nursing Theory, 6-9 hours within the College of Nursing that include the development of nursing science and theory.

Philosophical foundations of science
Advanced nursing theory development and validation

Nursing Science, 9-16 hours within the College of Nursing. Of these courses, students choose at least one course from one of the three substantive areas:

- Health Promotion and Protection
- Health Restoration and Support
- Health Care Systems

Quantitative & Qualitative Research Methods

Philosophical Foundations of Science

Research and Inquiry, 6-12 hours external to the College of Nursing, such as advanced statistics, research design, or computer applications.

Nursing Research and Inquiry, 12-18 hours within the College of Nursing that included quantitative design, and methods in nursing research; advanced qualitative design methods and analysis of nursing data; advanced quantitative measurement and analysis of nursing data; and qualitative methods in nursing research.

Dissertation, 12 hours.

Cognates, 9-12 hours outside the discipline of nursing which support the selected substantive area.

Professional Organizations

Sigma Theta Tau International Honor Society for Nursing Nu Chi is the College of Nursing's official chapter of Sigma Theta Tau International Honor Society. Membership is offered by invitation to Nursing students in the upper third of their class and to nurses recognized as outstanding community nursing leaders.

Student Nurses' Association
The College of Nursing is a constituent of the National Student Nurses' Association. The purpose of the organization is to provide baccalaureate students an opportunity to connect with the nursing profession through

service and professional development activities. The organization is open to all nursing majors and clinical nursing majors.

Black Student Nurses' Association

The College of Nursing is a constituent of the Black Student Nurses' Association. The purpose of this organization is to provide black nursing students in the prelicensure baccalaureate program the opportunity to serve as a support group for African-American students, collaborate with other African-American groups to compile archives relevant to African-American nurses, and to promote participation in interdisciplinary activities.

Continuing Education-Extension

Continuing Education offerings in nursing are presented to provide nurses with new information, techniques, and trends within the nursing profession.

INTERNATIONAL STUDENTS

All students with International or Permanent Resident status are required to complete an English as a second language (ESL) assessment with the UMSL ESL office. Based upon this assessment students may be required to complete recommended ESL courses before enrolling in nursing courses.

Course Descriptions

All general education requirements must be successfully completed before beginning 3100 level nursing courses.

All previous level nursing courses must be successfully satisfied prior to progressing to the next level nursing courses.

0100 Orientation to Professional Nursing (0)

Prerequisites: Admission to four-year baccalaureate program. Mandatory six-week introduction to the nursing program provides a comprehensive orientation to the program. Students are introduced to the academic and clinical expectations of the curriculum. Concerns critical for academic success (i.e., time management, effective study skills, stress management and dealing with test anxiety) are addressed.

2103 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.

2105 Communication in the Nursing Profession (3)

Prerequisite: None. 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.

3101 Nursing and Health (6)

Prerequisites: BIOL 1131, BIOL 1141, BIOL 1162, CHEM 1052, NURSE 1010; pre- or co- requisites: NURSE 3106, NURSE 3110, NURSE 3111. An introduction to the discipline of nursing, the historical and theoretical development of nursing is explored with an emphasis on critical thinking, the teaching/learning process, and foundational practice concepts. Through modular laboratory experiences, the student acquires psychomotor skills to provide safe and effective nursing care to clients promoting health and wellness. Includes classroom, laboratory and clinical experiences.

3106 Assessment of Clients in Health and Illness (3)

Prerequisite: BIOL 1131, BIOL 1141, BIOL 1162, CHEM 1052, PSYCH 1268, NURSE 0100. 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.

3110 Pathophysiological Bases of Nursing Practice (3)

Prerequisite: BIOL 1131, BIOL 1141, BIOL 1162, CHEM 1052 (or equivalent), NURSE 0100. This course focuses on the nature of disease, its causes, and the bodily changes that accompany it. Includes a study of general principles of disease, specific diseases of individual organs and systems and the clinical implications.

3111 Pharmacotherapeutics in Nursing Practice (3)

Prerequisite: BIOL 1131, BIOL 1141, BIOL 1162, CHEM 1052, NURSE 0100; pre/co requisite: NURSE 3110. This course introduces key terminology, legal foundations, general principles and clinical applications of pharmacology.

3205 Adult Health Nursing I (5)

Prerequisite: All 3100 level nursing courses, PSYCH 1268. 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.

3206 Adult Health Nursing II (5)

Prerequisite: All 3100 level nursing courses, PSYCH 1268. 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.

3214 Psychiatric Mental Health Nursing (4)

Prerequisite: All 3100-level nursing courses; PSYCH 1268. 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.

3215 Nursing of Women and Childbearing Families (4)

Prerequisite: All 3100 level nursing courses, PSYCH 1268. 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.

3216 Child and Family Health Nursing (4)

Prerequisite: all 3100 level nursing courses, PSYCH 1268. 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.

3799 Quantitative Analysis in the Health Sciences (3)

Prerequisite: MATH 1030 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.

3804 Ethical and Legal Dimensions of Nursing Practice (3)

Prerequisites: PHIL (3 credits). This course explores the ethical and legal dimensions of nursing practice. The relationship between ethical and legal issues is examined within nursing situations. The student participates in dialogue addressing ethical-legal issues in professional nursing practice to explore personal value, increase sensitivity to others and to develop ethical reasoning abilities.

3807 Nursing Research (3)

Prerequisite: NURSE 3799 (or equivalent). 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.

3808 Management and Leadership in Nursing (3)

Prerequisites: All 3000-level nursing courses; NURSE 3807; NURSE 3817. ECON 1000 or equivalent. 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.

3817 Introduction to Nursing and Health Informatics (3)

Prerequisite: None. This online laboratory course establishes competency in fundamental information management and computer technology skills. It enables students to use existing information systems and available information to manage nursing practice. Students critically evaluate technology, information, and its sources; use decision support systems designed for clinical decision making; and focus on the representation of nursing data, information, and knowledge.

3873 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.

3900 Dimensions of Professional Nursing Practice (3) RN/BSN

Prerequisites: Admission to the College of Nursing as RN. Investigates the roles and responsibilities of the professional nurse within a rapidly changing health care delivery system. Key issues are explored with emphasis on health promotion and health. Graduates of diploma nursing & associate programs will be awarded college credit for successful validation of basic nursing knowledge as part of this course.

3920 Health Assessment (3) RN/BSN

Prerequisites: NURSE 3900 and NURSE 3817 (may be taken concurrently) or consent of instructor. This laboratory course focuses on the knowledge, communication abilities,

and technical skills necessary for comprehensive assessment of individuals of all ages.

4300 Community Health Nursing (4)

Prerequisites: All 3000-level nursing courses. 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.

4310 Senior Synthesis (5)

Prerequisites: all 3000-level nursing courses, NURSE 4300 and 3808 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.

4720 Perioperative Nursing (3)

Prerequisite: Consent of instructor. Provides experiences in preoperative, intraoperative, and postoperative settings. Includes a clinical component.

4722 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.

4723 Nurse Externship (3)

Prerequisites: Senior level status; GPA 3.0 (4.0 scale) This course provides the opportunity to apply theoretical and conceptual knowledge and skills in a structured clinical environment under the guidance of a mentor.

4724 Emergency/Trauma Nursing (3)

Prerequisites: NURSE 3205 and 3206 or consent of instructor. This course provides a framework for the roles and responsibilities of the professional registered nurse in Emergency and Trauma nursing care.

4730 Nursing Care at the End of Life (3)

Prerequisites for nursing students NURSE 3205 and NURSE 3214. All others by consent of instructor. This course focuses on the nursing care of terminally ill patients and

their families. Topics explored will include the impact of personal values and beliefs about death, physiology of end-stage disease processes, symptom assessment and management, psychosocial and spiritual support, consideration in special patient populations, societal issues and trends in end-of-life care, ethical considerations in caring for the dying patient, grief and bereavement processes, and the role of nursing in end-of-life care across settings.

4741 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.

4742 Critical Care Nursing of the Adult (3)

Prerequisite: RN or completion of NURSE 3205 and 3206 or equivalent. Focuses on health restoration, health maintenance, and health support of individuals with dysfunctions or trauma to major organ systems. Emphasis is on understanding pathophysiology and psychosocial processes related to nursing and collaborative interventions, and the development of a functional framework for data organization and analysis.

4770 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.

4901 Family and Community Nursing (5) RN/BSN

Prerequisites: NURSE 3900, 3817 and 3920. This practicum course introduces the concepts, principles, skills, and professional nursing roles essential to practice community-based professional nursing with families and groups.

4905 Values in Professional Nursing (3) RN/BSN

Prerequisites: All 3000 level RN/BSN nursing courses or consent of instructor. Explores values and beliefs as they shape professional nursing practice and influence clinical decision making and interventions in the evolving health care system. Attention is given to the impact of sociocultural factors and health/illness beliefs and practices of the diverse populations served by the professional nurse. Students examine their own understanding of the moral nature of professional nursing within the context of a diverse society.

4911 Synthesis in Nursing Practice (5) RN/BSN

Prerequisites: NURSE 4901. 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.

6104 Values and Cultural Diversity in Advanced Nursing Practice (3)

Prerequisites: Admission to MSN Program. This course explores the diversity of cultural influences and the moral/ethical influences on advanced nursing practice. The values and cultural beliefs of the individual student and the underlying values of the health care system are analyzed for their impact on communities and health care. Health/illness beliefs and practices of individual, families, and communities are explored, as well as folk health care and complementary medicine. This course includes: value clarification, ethical analysis, cultural diversity, and culturally competent care.

6106 Policy, Organization and Financing in Health Care (3)

Prerequisite: Admission to MSN program or consent of instructor. This course is designed to explore the underpinnings of health policy as it relates to advanced nursing practice. It provides an overview of health care policy, organization and financing with emphasis on current health care trends within the framework of the workplace, government, professional organizations, and community. The policy making process at the organizational, local, state, national, and international level is explored. The variety of forces influencing policy and the policy making process are analyzed with emphasis on the nurses' role in influencing health care delivery, outcomes of client care, and nursing professional issues. Use of Health services and nursing research to influence policy is introduced.

6111 Theoretical Foundations in Nursing (3)

Prerequisite: Admission to the Master's Program in the College of Nursing or consent of the instructor. This course focuses on critical analysis of theory and the utilization of various levels of nursing and other theories as they apply to advanced practice. Nursing knowledge and the methods of knowing within nursing will be explored. The course further examines the relationship between research, theory and practice.

6112 Nursing Research Methods (3)

Prerequisites: NURSE 3799 or equivalent; NURSE 6111 (may be taken concurrently). This course is designed to provide the student with the skills required to be a consumer of nursing research. These include the fundamentals of scientific inquiry in nursing as well as the information necessary to understand and evaluate nursing research. Principles and techniques common to scientific investigation are applied to nursing. Researchable problems are developed.

6114 Evidence-Based Nursing (3)

Prerequisites: NURSE 6112. This course prepares nurses to review existing nursing research about a nursing practice problem and to propose appropriate changes in current nursing practice. The theoretical basis for evidence-based nursing with respect to screening, diagnosis, selection of

treatment alternatives, and prognosis are examined. Research designs such as case control and cohort studies are included. Practical application of change in nursing is examined, including formative and summative aspects of evaluation. Opportunities are provided to develop a plan to implement evidence-based change in an area of nursing practice.

6140 Health Promotion Across the Life-Span (3)

Pre or corequisite: NURSE 6111. This course is designed to provide students with an advanced-knowledge base, related to the concepts of health promotion and health protection across the life span. Emphasis is placed on the application of various developmental theories for infant, child, adult, older adult and family which will provide the basis to individualized healthcare needs for various ages and family groups. This course includes: theories of health promotion and protection, epidemiology, disease and injury prevention, health education, cultural competencies, growth and development, nutrition, and family systems theory. Emphasis is placed on theory and research relevant to health promotion and the family as the unit of service.

6144 Health Promotion and Cultural Diversity (3)

Prerequisites: Admission to the MSN Program. This course provides graduate nursing students with knowledge related to the concepts of health promotion, health protection, cultural diversity, and moral/ethical influences across the lifespan. Core concepts for the course include theories of health and health promotion and protection, epidemiology, disease and injury prevention, health education, cultural diversity, growth and development, nutrition and family systems. The students will explore values clarification and ethical analysis.

6309 Role of the Nurse Educator (3)

Prerequisite: Admission to the MSN program or consent of instructor. This course will explore the roles, responsibilities, and functions of the nurse educator. Emphasis will be placed on the development and evaluation of the interactive nature of teaching and learning in a variety of settings.

6320 Learning and Curriculum Development in Nursing (3)

Prerequisite: NURSE 6309. Examines theoretical foundations, principles, and issues in curriculum design. Explores systematic evaluation of curriculum at all levels.

6321 Instructional Strategies in Nursing Education (3)

Prerequisite: NURSE 6309 with consent of instructor; must be taken concurrently with NURSE 6320. This course focuses on the development and analysis of teaching and learning strategies in nursing education. Adult learning principles of teaching and learning will be incorporated into the innovative strategies developed within this course. Integration of new technology in instructional design and delivery will be highlighted. Evaluation methods of both teacher and learner will be explored.

6409 Role of the Nurse Leader (3)

Prerequisite: Admission to the Master's Program in the College of Nursing or consent of the instructor. Analysis of the roles and responsibilities of the nurse executive in a complex healthcare system. This course explores the roles and challenges of the clinical nurse leader. Emphasis will be placed on the responsibilities of the clinical nurse and clinical nurse leader in a complex healthcare system.

6425 Managed Care Services (3)

Prerequisite: Admission to MSN or consent of instructor. Provides analysis of health care environment in managed care and its impact on nurse's role.

6426 Health Resources Management (3)

Prerequisite: NURSE 6409. This course focuses on the roles and responsibilities of the nurse leader for fiscal and human resource management in both public and private sectors. Includes analysis of the environment, healthcare organization within the system and impact of resource management on nursing and health care.

6428 Theory and Practice in Nursing Leadership (3)

Prerequisite: NURSE 6409. This course focuses on theories and practices of advanced nursing leadership and management practice within complex healthcare systems. This course will also compare to global healthcare systems. Particular focus will be on the application/effectiveness assessments of the practices within healthcare organizations. Patient safety and quality management theory practices in healthcare will be discussed in depth and compared to other industries' safety and quality management programs theory/practices.

6509 Role of the Clinical Nurse Specialist/Nurse Practitioner (2)

Prerequisite: Admission to the Master's Program in the College of Nursing or consent of the instructor. This course will focus on issues affecting the emerging roles of the nurse practitioner and clinical nurse specialist. It is designed to facilitate the role development of nurses who desire to function as primary care providers and/or as specialists within a specific clinical area of advanced nursing practice. Emphases include sub-roles of advanced practice (leader, consultant, expert, researcher, educator), legal and professional issues, change theories, and standards of practice.

6518 Pathophysiology for Advanced Nursing Practice (3)

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.

6519 Advanced Pediatric Pathophysiology (3)

This course focuses on embryology of the major organ systems, as well as specific physiologic and pathophysiologic processes relevant to the child from birth

through age 18. Implications for advanced nursing practice which result from alterations of normal physiologic functioning in cellular, tissue, and organ systems are examined. Emphasis is placed on the relationship between pathophysiology, decision making, and standards of advanced nursing practice.

6520 Pharmacology for Advanced Nursing Practice (3)

Prerequisite: NURSE 6518 or equivalent or consent of instructor. This is a course in clinical pharmacotherapeutics that builds on prior knowledge of drug classification, actions, interactions and adverse drug reactions. The major focus of the course is the pharmacotherapeutic use of medications for primary health-care management by advanced practice nurses. Emphasis is placed on clinical critical thinking process used to prescribe drugs in the management of specific illnesses. The Missouri laws for advanced practice nurse prescriptive authority will be addressed. Emphases include pharmacodynamics, pharmacokinetics, pharmacotherapeutics, health-related information, medication compliance, and issues that pertain to the prescribing of medications in advanced nursing practice.

6524 Health Assessment for Advanced Nursing Practice (3)

Prerequisite: NURSE 3106 (or equivalent); NURSE 6518 may be taken concurrently. This course is designed to provide a systematic approach to advanced physical assessment as well as psychological, sociocultural, developmental, and spiritual assessment of individuals across the lifespan. This course builds upon basic health assessment knowledge and skills, laboratory work interpretation, validation, documentation, and analysis of assessment findings. Two hours of theory and 1 hour of clinical lab per week are required.

6526 Advanced Health Assessment for Pediatric Nursing Practice (3)

Comprehensive assessment of children through adolescence, including those with significant health and/or developmental deviations, using advanced diagnostic reasoning processes. Emphasis on health history, cultural diversity, differentiations, interpretation, and documentation of findings.

6529 Advanced Pharmacology for Pediatric Nursing Practice (3)

Prerequisites: Admission to Master of Science in Nursing or permission of the instructor. This course is a clinical pharmacotherapeutics that builds on prior knowledge of drug classifications, actions, interactions, and adverse drug reactions. The major focus of the course is the pharmacotherapeutic use of medications for primary health care management of children from birth to young adulthood by advanced practice nurses. Emphasis is placed on the clinical critical thinking process used to prescribed drugs in the management of specific illness. The Missouri Laws for advanced practice nurse prescriptive authority will be

addressed. Core concepts include pharmacodynamics, pharmacokinetics, health related information, medication compliance and issues that pertain to the prescribing medication in advanced nursing practice.

6530 Clinical Diagnostics for Advanced Nursing Practice (3)

Prerequisites: NURSE 6518 or NURSE 6519. This course provides an introduction to the interpretation and appropriate use of diagnostic measures for advanced practice nurses in primary care settings. Special attention is paid to laboratory, radiographic and diagnostic testing. In addition, clinical opportunities will be provided to gain clinical interventional skills for advanced practice nursing.

6739 Adult Primary Care I: Diagnosis & Management in Advanced Nursing Practice (5)

Prerequisites: NURSE 6105, 6106, 6108, 6140, 6111, 6112, 6518, 6524, 6520; 6509 & 6114 may be taken concurrently. Clinical course designed to provide a theoretical and practical base for advanced practice nursing students to diagnose and manage health problems of adults. Emphasis is placed on clinical assessment and decision-making in the provision of direct patient care within a defined scope of practice. The student is expected to clinically apply the concepts and theories discussed in class in the advanced nursing care of adults who are experiencing problems related to the upper and lower respiratory system, cardiovascular system, gastrointestinal system, skin and infectious diseases. Clinical experiences are designed to enhance assessment and technical skills needed in diagnosing common health problems.

6740 Adult Primary Care II: Diagnosis & Management in Advanced Nursing Practice (5)

Prerequisites: NURSE 6739. Clinical course designed to provide a theoretical and practical base for advanced practice nursing students to diagnose and manage health problems of adults. Emphasis is placed on clinical assessment and decision-making in the provision of direct patient care within a defined scope of practice. The student is expected to clinically apply the concepts and theories discussed in class in the advanced nursing care of adults who are experiencing problems related to the musculoskeletal, neurological, endocrine/metabolic, genitourinary, reproductive systems, the eye, and mental health. Clinical experiences are designed to enhance assessment and technical skills needed in diagnosing common health problems.

6741 Family Health I: Diagnosis & Management in Advanced Nursing Practice (5)

Prerequisites: NURSE 6104, NURSE 6106, NURSE 6111, NURSE 6112, NURSE 6140, NURSE 6518, NURSE 6520, NURSE 6524, Co-requisite(s): NURSE 6114, NURSE 6509. This clinical course is designed to provide students with the opportunity to gain the concepts and skills essential to advanced practice nursing care of families experiencing

acute and chronic health problems, with particular focus on women's and children's health issues. Emphasis is given to those health needs most commonly encountered by the Family Nurse Practitioner. A research-based and theory-based approach to nursing interventions is used. Emphases include family adaptation to acute and chronic conditions, health promotion, clinical decision-making and ethical decision-making. Four hours of didactic and 1 hour of clinical per week are required.

6742 Family Health II: Diagnosis and Management in Advanced Nursing Practice (5)

Prerequisites: NURSE 6741. This clinical course is designed to provide students with the opportunity to gain the concepts and skills essential to advanced practice nursing care of families experiencing acute and chronic health problems, with particular focus on adult clients. Emphasis is given to those health problems most commonly encountered by the Family Nurse Practitioner. A research-based and theory-based approach to nursing interventions is used. Emphases include family adaptation to acute and chronic conditions, health promotion, clinical decision making, and ethical decision making. 4 didactic hours and 1 clinical hour per week are required.

6743 Child Health I: Diagnosis & Management in Advanced Nursing Practice (5)

Prerequisites: NURSE 6524, NURSE 6104, NURSE 6518, NURSE 6509, NURSE 6520 and NURSE 6529. This course is designed to provide students with the opportunity to apply skills from advanced physical assessment, pathophysiology, pharmacology, and theory to advanced nursing care of the child and family. Emphasis is placed on child and family developmental issues for advanced practice pediatric nurses. Normal cognitive, motor, social/emotional, and language development for the child along with the usual developmental challenges of each age group will be addressed. The implications of the development stage of the child and family, level of developmental skill and developmental problems for the maintenance of health and the management of illness by the Advanced Practice Nurse will be discussed. Emphasis includes information about management by the advanced Practice Nurse of: cultural and ethnic variations of growth and developmental problems; health maintenance; common pediatric behavioral problems; and recognition of circumstances that require interdisciplinary collaboration and referral. Advanced practice role of development is emphasized throughout the course in case management discussions and supervised clinical practice. Clinical practice opportunities are arranged in collaboration with the course instructor and planned in a variety of pediatric settings. Four hours of didactic and 1 hour of clinical per week are required.

6744 Child Health II: Diagnosis & Management in Advanced Nursing Practice (5)

Prerequisite: NURSE 6743. This course is designed to provide students with the opportunity to apply skills from advanced physical assessment, pathophysiology,

pharmacology, and theory to advanced nursing care of the child and family. Emphasis is placed on using models and theories that guide advanced practice and planning evidence-based care. The focus is on assessing, diagnosing, and planning care for clients with common pediatric health problems. The implications of the developmental stage of the child and family, level of developmental skill and developmental problems for the maintenance of health, and the management of illness by the advanced practice nurse are discussed. Documentation includes pertinent history, physical examination, laboratory findings, and differential diagnoses relevant to the individual client. Focus is on developing a plan of care that encompasses the various treatment modalities used in managing common pediatric health problems including specific pharmaceutical and symptomatic treatment. Clinical practice opportunities are arranged in collaboration with the instructor and planned in a variety of pediatric settings. Four hours of didactic and one hour clinical per week are required.

6746 Women's Health I: Diagnosis & Management in Advanced Nursing Practice (5)

Prerequisites: NURSE 6106, 6108, 6140, 6111, 6112, 6518, 6524, 6520 & 6114 may be taken concurrently. Clinical course designed to provide students the opportunity to apply knowledge and skills from advanced physical assessment, pathophysiology, pharmacology, and theory to advanced nursing care of women and families throughout the childbearing continuum. Emphasis is placed on using models and theories that guide advanced nursing practice and research-based care. Focus is on educating the advanced practice nurse to collaborate with women and their families to promote health and prevent disease. Within this context, the focus is on assessing, diagnosing, and planning care for women and families experiencing an uncomplicated childbearing continuum, as well as acute and/or chronic health care problems during preconception, pregnancy and the postpartum period, within a health promotion framework. The format includes pertinent history, physical examination, laboratory findings and differential diagnoses relevant to the individual client. Core concepts include adaptation of women through developmental stages, health risk assessment, health promotion, disease prevention, health education, primary care of women throughout the childbearing continuum, reproductive options, ethical decision-making, and grief and loss.

6747 Women's Health II: Diagnosis & Management in Advanced Nursing Practice (5)

Prerequisite: NURSE 6746. Clinical course designed to provide students the opportunity to apply knowledge and skills to advanced practice nursing care of women and families throughout the lifespan. Emphasis is placed on using models and theories that guide advanced nursing practice and research-based care. Focus is on educating the advanced practice nurse to collaborate with women and their families to promote health and prevent disease. Within this context, the focus is on assessing, diagnosing, and planning care for women, as well as women experiencing common

health problems within a health promotion framework. The format includes pertinent history, physical examination, laboratory findings and differential diagnoses relevant to the individual client. Core concepts include adaptation of women through developmental stages, health risk assessment, health promotion, disease prevention, health education, primary care of well women, ethical decision-making, and grief and loss. Focus is on the development of a plan of care that encompasses the various treatment modalities used in managing common women's health problems including specific pharmacological and non-pharmacological therapies.

6870 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.

6875 Special Study in Graduate Nursing (1-3)

Prerequisites: Admission to the MSN program and/or consent 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.

6952 Synthesis Practicum (3)

Prerequisites: All required courses in Nurse Educator or Nursing Leadership of Health Systems option or consent of instructor. This clinical course is a concentrated opportunity to function in an advanced nursing role as a nursing administrator, integrating clinical and functional role activities within a chosen setting. Emphasis includes educator or administrator nursing practice, functional role responsibilities, and activities with emphasis on their relationship to client outcomes.

6954 Advanced Practice Nursing: Internship I (2)

Prerequisite: All required graduate Nursing courses. Advanced research component may be taken concurrently. Enrollment is limited to those in the nurse practitioner functional role. This clinical course provides opportunity for the initiation of the nurse practitioner role with selected populations. Students participate in precepted experiences with certified nurse specialists, practitioners and/or primary care physicians for a minimum of 250 hours. Students will participate in clinical seminars.

6955 Advanced Practice Nursing: Internship II (2)

Prerequisite: NURSE 6954. Continuation of precepted clinical experiences with selected populations initiated in NURSE 6954. This clinical course provides opportunity for the initiation of the nurse practitioner role with selected populations. Students participate in precepted experiences with certified nurse specialists, practitioners, and/or primary care physicians for a minimum of 250 hours. Students will participate in clinical seminars.

7211 Biostatistics I (3)

Prerequisites: Consent of Instructor. This course provides a comprehensive understanding of the general linear model. Data description, logic of sampling and test statistics, hypothesis testing, type 1 and type 2 errors are included. Test statistics include one-way ANOVA (analysis of variance); planned comparisons, post-hoc tests and trend analysis; factorial ANOVA; repeated measures designs and mixed randomized repeated designs; multiple comparison techniques; and simple and multiple regressions.

7212 Biostatistics II (3)

Prerequisite: NURSE 7211. This course is designed to provide a conceptual understanding of the statistical procedures associated with power analysis and advanced statistical methods.

7220 Leadership Practice (3)

Prerequisites: None. This course provides students with the opportunity to develop and refine critical leadership skills. Emphasis is on using models and theories that facilitate inter-professional collaboration to achieve optimal health outcomes. The focus is effective communication and leadership methods necessary to establish successful inter-professional teams. Students will enhance skills in verbal, written and electronic communication; team leadership; and creating and sustaining health related initiatives. Through advanced understanding of the interprofessional dimension of health care, students will facilitate collaboration and remove barriers to providing safe, timely, effective, efficient, equitable and patient centered care in a complex environment.

7230 Epidemiology (3)

Prerequisites: Consent of Instructor. This course introduces the fundamental principles and methods of epidemiology. Topics to be covered include the historical perspective of epidemiology, measures of disease occurrence and of association, clinical epidemiology, disease screening, causal inference, and analytic study design. Students will design epidemiologic studies, and utilize common statistical tests. Emphasis will be placed on case control studies, cohort studies, clinical epidemiology, and infectious disease epidemiology.

7240 Health Informatics (3)

Prerequisites: Consent of Instructor. This course explores information systems and computer technologies that can improve the health of individuals, families, communities and populations by optimizing information management and communication. Focus areas include the electronic medical record, technologies to improve patient safety, standards for privacy and security, tele-health systems to improve healthcare access to underserved populations, use of web-enhanced technologies for research translation, and strategies to provide data for decision making and evidence based databases. Emphasis is placed on developing competence in technology use for the purpose of program evaluation, establish healthcare quality, and improving

healthcare delivery to diverse populations in complex healthcare settings.

7250 Frameworks for Health Care Delivery (3)

Prerequisites: NURSE 7220, or Consent of Instructor.

This course is designed to provide students with a framework to understand the system through which health care is delivered and financed and explores the cultural and psychosocial contributors to health care. The focus is to provide students with knowledge about complex health care systems, government and private reimbursement structures, quality and patient safety initiatives, and legal mandates affecting health care delivery.

7270 Policy Application for Improved Health Outcomes (3)

Prerequisites: NURSE 6106 or equivalent and Nursing 7230.

Students learn how to effectively translate and disseminate knowledge from nursing and other health sciences to policy makers and stakeholders in order to form collaborations to affect change at various levels of the policy process. Topics to be covered include policy analysis, policy development, collaboration and negotiation specific to the policy process, building social and political capital and garnering resources to assure effective policy implementation. Students will utilize population health data, policy analysis, and policy development skills to define, shape and implement culturally competent health policy.

7291 Clinical Scholarship I (3)

Prerequisites: All DNP coursework or Consent of Instructor.

This experience provides additional opportunities for practice expertise development to create change in a targeted population and complex healthcare environments. Students will develop skills to assess and diagnose healthcare systems and identify evidenced-based strategies to improve health outcomes. Included in this experience is 150 hours of precepted clinical experience with a licensed advance practice nurse or physician.

7292 Clinical Scholarship II (3)

Prerequisites: NURSE 7291. This experience provides additional opportunities for practice expertise development to create change in a targeted population and complex healthcare environments. Students will develop strategies to implement evidenced-based strategies to improve health outcomes. Included in this experience is 200 hours of precepted clinical experience with a licensed advance practice nurse or physician.

7293 Clinical Scholarship III (3)

Prerequisites: NURSE 7292. This experience provides additional opportunities for practice expertise development with a targeted population in a complex healthcare environment. Students will evaluate evidenced-based clinical projects and health outcomes. Included in this experience is 200 hours of precepted clinical experience with a licensed advanced practice nurse or physician.

7299 DNP Seminar (1)

Prerequisites: All DNP required coursework or Consent of Instructor. This DNP Seminar provides opportunity to synthesize and analyze knowledge. Course objectives will be individualized to address student's learning needs and will be outlined in a learning contract formulated with the DNP faculty advisor.

7401 Research Institute I (2)

Prerequisites: Admission to Doctoral Study in Nursing. This course provides an introduction to the process of becoming a research scientist or a translational investigator. Content will include the ethical and responsible conduct of research on clinical project, core elements, the emerging guidelines, relevant policies and procedures, and the impact to the researcher in day-to-day activities. This course also includes literature reviews, scholarly writing, technology in the research process, developing a program of scholarship and effective time management

7403 Research Institute III (2)

Prerequisites: None. This course addresses the Ph.D. prepared nurse in the roles of scientist, leader, academician and policy maker. Students will analyze strategies for lifelong learning and development as nurse scientists and will explore avenues for building their programs of scholarship and contributing to the use of nursing science in policy and clinical practice. They will examine ways to collaborate effectively with members of the public, nursing colleagues, and interprofessional colleagues to improve health care and outcomes.

7404 Research Institute IV (1)

Prerequisites: Admission to candidacy. This course will assist students to analyze and synthesize their ideas with other students regarding all aspects of the dissertation including plans to collaborate with others, write, fund, publish, and present their research findings.

7480 Guided Nursing Research Seminar (1-6)

Prerequisites: Consent of instructor. Provides opportunity to work in collaboration with faculty and peers in a focused research topic relevant to nursing.

7481 Development of Nursing Science and Theory (3)

Prerequisites: Consent of instructor. This course focuses on the discipline of nursing, including the evolution of the state-of-the-art theory development in nursing. The course includes the aims of nursing science, the nature of scientific theories, theory analysis, a discussion of relationships among theory, research, and practice. Students engage in constructive dialogue as they begin to conceptualize nursing phenomena in their area of interest, and develop and evaluate the validity of a conceptual model.

7485 Nursing Research Designs and Methods (3)

Prerequisites: Admission to the PhD in Nursing program, NURSE 6112, and consent of instructor. This course

focuses on methods commonly used in studies related to a particular scientific area. Based on the state of the science, research literature will be summarized in all aspects of research including the methods, measures, findings as well as an analysis of research gaps resulting in identification of potential researchable questions. These questions will be linked to quantitative research methods appropriate for further nursing research including experimental and non-experimental methods such as quasi-experimental, longitudinal, correlation, and descriptive design. Advantages and limitations of these designs will be addressed.

7488 Qualitative Methods in Nursing Research (3)

Prerequisites: Consent of instructor. Examines the relationship between theoretical and philosophical perspectives and selection of appropriate methodologies in research design. Critically explores issues related to innovations in traditional qualitative designs and emerging technologies, rigor and validity and role of interpretive research in nursing science.

7490 Advanced Quantitative Design, Methods, and Analysis of Nursing Data (3)

Prerequisites: NURSE 7485. This course focuses on issues in sampling and design, and implementation of interventions in nursing research. Content includes design and analysis issues affecting internal and external validity. Strategies and data manipulation related to univariate and basic multivariate analysis with computers are discussed.

7491 Advanced Nursing Theory Development and Validation (3)

Prerequisites: NURSE 7481 or consent of instructor. This course focuses on a systematic study of contemporary nursing science, on knowledge development, and on the application of major theory construction and validation strategies to specific nursing phenomena of interest. Students create and critically examine theoretical frameworks and models, with emphasis placed on constructing and testing theoretical statements.

7492 Advanced Quantitative Measurement and Analysis of Nursing Data (3)

Prerequisites: NURSE 7490. This course focuses on measurement techniques and their applications in nursing research. Content includes examination of measurement and techniques for assessing validity, reliability, and structure of data collection instruments; instrument construction and procedures for critical evaluation of instruments; application of advanced statistical principles; application of strategies for data manipulation and analysis; and discussion of measurement limitations and data analysis solutions.

7493 Psychometrics (3)

Prerequisites: NURSE 7490 and doctoral level statistics course and/or consent of instructor. Focuses on application of psychometric theories and practices related to instrumentation in nursing research. Basic methodologies and techniques for constructing, testing, and evaluating

instruments will be discussed and applied. Content will focus on theoretical foundations of measurement, item construction, instrument design, item analysis, validity and reliability assessment. Criteria for evaluating existing instruments will also be discussed.

7498 Doctoral Seminar (1-12)

Prerequisites: Consent of instructor. Presentation and discussion of pertinent methodological and clinical issues related to doctoral research.

7499 Dissertation Research (1-12)

Prerequisites: All required course work; successful completion of written comprehensive examination. Investigation of an advanced nature culmination in successful defense of dissertation. Continuous registration is required.

College of Optometry

This section contains an abbreviated version of the College of Optometry Bulletin. Some information is omitted.

For the most complete and accurate information regarding the Optometry program at the University of Missouri-St. Louis, please go to our web site:
<http://umsl.edu/divisions/optometry/index.html>. The College of Optometry Bulletin can be found at
<http://www.umsl.edu/divisions/optometry/pdf%27s/2006OptometryBulletin.pdf>.

Administration and Faculty

Larry J. Davis, Associate Professor and Dean
O.D., Indiana University; Residency, Contact Lenses,
University of Missouri - St. Louis
Vinita A. Henry, Clinical Professor and Director,
Residency Programs, Co-Chief Contact Lens Service and
Program Coordinator for Residency, Contact Lenses; O.D.,
Residency, Contact Lenses, University of Missouri - St.
Louis
Raymond I. Myers, Clinical Professor
O.D., Indiana University
Carol K. Peck, Professor
Ph.D., Postdoctoral Fellow, University of California-Los
Angeles
Timothy A. Wingert, Professor, Chief of Third-year
Primary Care Service
O.D., Illinois College of Optometry
William G. Bachman, Associate Professor
M.S., University of Alabama-Birmingham, O.D., Southern
College of Optometry
Carl J. Bassi, Associate Professor; Director of Research and
Graduate Studies, Ph.D., Vanderbilt University, Postdoctoral
Fellow, University of Southern California, Doheny Eye
Institute
Edward S. Bennett, Associate Professor; Director of
Student Services; Co-Chief, Contact Lens Service
M.S.Ed., O.D., Indiana University-Bloomington
Ralph P. Garzia, Associate Professor and Assistant Dean
for Clinical Programs; O.D., Residency, Pediatric
Optometry, Pennsylvania College of Optometry
Thomas Landgraf, Clinical Associate Professor
O.D., Illinois College of Optometry
Residency, Primary Care, Pennsylvania College of
Optometry
W. Howard McAlister, Associate Professor
M.A., Webster College, M.P.H., University of Illinois at the
Health Sciences Center-Chicago, O.D., The Ohio State
University
Gerald A. Franzel, Associate Clinical Professor; Associate
Dean for the Division of Continuing Education
O.D., University of Houston
Kathleen Boland, Assistant Clinical Professor
O.D., University of Missouri - St. Louis

John Crane, Assistant Clinical Professor
O.D., University of Missouri - St. Louis
James A. DeClue, Assistant Clinical Professor
O.D., Illinois College of Optometry
Julie Ott DeKinder, Assistant Clinical Professor
O.D., Northeastern State University; Residency, Cornea and
Contact Lens, University of Missouri - St. Louis
Aaron S. Franzel, Assistant Clinical Professor, Chief
Pediatric/Binocular Vision Service, Pediatrics
O.D., University of Missouri - St. Louis
Christine Garhart, Assistant Teaching Professor
D.V.M., Ph.D., University of Missouri-Columbia, Case
Western Reserve University
Alexander J. Harris, Assistant Clinical Professor, Director
of Externship Programs and Minority Affairs Advisor
M.A., Washington University, O.D., University of Missouri
- St. Louis
Edward Jarka, Assistant Clinical Professor; Center
Coordinator
O.D., Illinois College of Optometry; M.S., Western Illinois
University
Linda Marks, Assistant Clinical Professor
O.D., Ferris State University; Residency, Pediatric
Optometry, University of Missouri - St. Louis
Erwin Wong, Assistant Professor
O.D., Southern California College of Optometry; Ph.D.,
University of Houston Postdoctoral Fellow, University of
California, Berkeley, and Washington University
Jeffrey L. Weaver, Adjunct Professor
M.S., The Ohio State University, M.B.A., Drury College;
O.D., Pennsylvania College of Optometry; Residency,
Family Practice, The Ohio State University
Leonard L. Naeger, Adjunct Associate Professor
Ph.D., University of Florida; Residency, Hospital-Based
Pharmacy, VA Medical Center, St. Louis
Lee J. Browning, Adjunct Assistant Professor
O.D., University of Missouri - St. Louis, Residency,
Northeastern State University, Tahlequah, OK
Brian Brunig, Adjunct Assistant Professor
O.D., University of Missouri - St. Louis
Beth A. Henderson, Adjunct Assistant Professor
O.D., The Ohio State University
Vivian Kloke, Adjunct Assistant Professor
O.D., University of Missouri - St. Louis
Eric Polk, Adjunct Assistant Professor
O.D., University of Missouri - St. Louis
Mary Beth Rhomberg, Adjunct Assistant Professor
O.D., University of Missouri - St. Louis
Joseph Ververloh, Adjunct Assistant Professor
O.D., University of Houston, M.S., University of Houston
Stephen Viola, Adjunct Assistant Professor
Ph.D., Indiana State University
Gary Vogel, Adjunct Assistant Professor
O.D., Ohio State University
Deborah Iadevito, Specialist
M.Ed., University of Missouri - St. Louis
Maureen McCarthy, Specialist
M.Ed., University of Missouri - St. Louis

Off-Campus Adjunct Faculty

Joseph H. Maino, Adjunct Professor
O.D., Illinois College of Optometry; Residency,
Rehabilitative Optometry, VA Medical Center, Kansas City

Sean Mulqueeny, Adjunct Associate Professor
O.D., University of Missouri - St. Louis

Stuart Richer, Adjunct Associate Professor
O.D., University of California

Richard Wilson, Adjunct Associate Professor
O.D., University of Missouri - St. Louis

Leven Akduman, Adjunct Associate Professor
M.D., Hacı Hepe, University of Turkey

Ronald Bateman, Adjunct Assistant Professor
O.D., Indiana University-Bloomington

P. Douglas Becherer, Adjunct Assistant Professor
O.D., Southern College of Optometry

Robert Brusatti, Adjunct Assistant Professor
O.D., University of Missouri - St. Louis

James Bureman, Adjunct Assistant Professor
O.D., Illinois College of Optometry

Carmen Castellano, Adjunct Assistant Professor
O.D., Illinois College of Optometry

Walter Choate, Adjunct Assistant Professor
O.D., Southern College of Optometry

Diane Curry, Adjunct Assistant Professor
O.D., University of Missouri - St. Louis

Cheryl Davidson, Adjunct Assistant Professor
O.D., University of Missouri - St. Louis

Michelle Dent, Adjunct Assistant Professor
O.D., V.A. Wichita, Kansas

Gail B. Doell, Adjunct Assistant Professor
O.D., University of Missouri - St. Louis

John Galanis, Adjunct Assistant Professor
M.D., St. Louis University

John M. Garber, Adjunct Assistant Professor
O.D., Southern College of Optometry

Sarah Gerdes, Adjunct Assistant Professor
O.D., Ohio State University

N. Rex Ghormley, Adjunct Assistant Professor
O.D., Southern California College of Optometry

Steven J. Grondalski, Adjunct Assistant Professor
O.D., Pennsylvania College of Optometry

Timothy Harkins, Adjunct Assistant Professor
O.D., Southern California College of Optometry

Steven Hill, Adjunct Assistant Professor
O.D., Illinois College of Optometry

James Hoekel, Adjunct Assistant Professor
O.D., University of Missouri - St. Louis

Timothy Hug, Adjunct Assistant Professor
O.D., University of Houston

Kristen Jaloszynski, Adjunct Assistant Professor
O.D., SUNY College of Optometry
Residency, Ocular Disease/Low Vision Rehabilitation,
Kansas City Veteran's Affairs Medical Center

Jeffrey Kempf, Adjunct Assistant Professor
O.D., Southern College of Optometry

Deborah Kerber, Adjunct Assistant Professor
O.D., University of Missouri - St. Louis

Sean Knaak, Adjunct Assistant Professor
O.D., Indiana University School of Optometry
Residency, Hospital Based Rehabilitative Optometry,
Kansas City Veteran's Affairs Medical Center

Harry Knopf, Adjunct Assistant Professor
M.D., Harvard Medical School

Robert A. Koetting, Adjunct Assistant Professor
O.D., Southern College of Optometry

Linda Lucas, Adjunct Assistant Professor
O.D., Indiana University School of Optometry

John A. McGreal, Jr., Adjunct Assistant Professor
O.D., Pennsylvania College of Optometry

Daniel Osborn, Adjunct Assistant Professor
M.D., Indiana University School of Medicine

Arraya Paksin-Hall, Adjunct Assistant Professor
O.D., University of Missouri - St. Louis
Residency, Ocular Disease, Harry S. Truman Veteran's
Affairs Medical Center, Columbia, MO; Residency, Primary
Care, University of Missouri-Columbia School of Medicine

David Pierce, Adjunct Assistant Professor
O.D., Southern College of Optometry

Thomas I. Porter, Adjunct Assistant Professor
O.D., Southern College of Optometry

Paul Resler, Adjunct Assistant Professor
O.D., Illinois College of Optometry

Byron A. Santos, Adjunct Assistant Professor
M.D., University of San Carlos

Carol Scott, Adjunct Assistant Professor
O.D., Southern College of Optometry

Don Simpson, Adjunct Assistant Professor
O.D., Indiana University

Craig Sorce, Adjunct Assistant Professor
O.D., University of Missouri - St. Louis

Amy Sullivan, Adjunct Assistant Professor
O.D., Southern College of Optometry

Joe Sullivan, Adjunct Assistant Professor
O.D., Illinois College of Optometry

Claude Valenti, Adjunct Assistant Professor
O.D., University of Pennsylvania

John Volosin, Adjunct Assistant Professor
O.D., Northeastern State University Oklahoma College of
Optometry, Tahlequah, OK

Paul Whitten, Adjunct Assistant Professor
O.D., University of Missouri - St. Louis

Carrie Williams, Adjunct Assistant Professor
O.D., Southern College of Optometry

Melissa Wisniewski, Adjunct Assistant Professor
O.D., Pennsylvania College of Optometry

Jack Yager, Adjunct Assistant Professor
O.D., Ohio State University

Dwayne Young, Adjunct Assistant Professor
O.D., Indiana University

General Information

The University of Missouri-St. Louis, College of Optometry enrolled its first class in 1980, graduating 32 students in May 1984. The college is located on the South Campus complex of the University of Missouri-St. Louis at 7800 Natural Bridge Road. A five-story building houses the college's

classrooms, laboratories, research facilities, administrative offices, library, and the Center for Eye Care campus facility (the University Eye Center).

The College of Optometry is a member of the Association of Schools and Colleges of Optometry (ASCO) and is accredited by the Accreditation Council on Optometry Education (ACOE).

The Doctor of Optometry (O.D.) Degree

A student who satisfactorily completes all four years of the professional curriculum will be eligible to receive the doctor of optometry degree. The training and clinical experience optometry students receive at UMSL qualifies UMSL graduates to practice optometry in any state in the nation.

Center for Eye Care

The Center for Eye Care provides a patient care learning environment for third-year and fourth-year optometric students and residents. The Center for Eye Care includes four locations: the University Eye Center on the University of Missouri - St. Louis South Campus, the Optometric Center in the Central West End of the city of St. Louis, the East St. Louis Eye Center, and the Harvester Eye Center in St. Charles, MO. These and other affiliated health centers in the St. Louis area provide an instructional setting where student interns are exposed to a wide variety of patients under the direct supervision of full-time or part-time clinical faculty. Equally important is that these Centers provide exemplary, comprehensive and state-of-the-art optometric care to their patients.

The Centers provide a full range of optometric services to patients including primary eye care, contact lens, pediatric/binocular vision, low vision, and eye health management.

Situated in Missouri's largest metropolitan area, the college 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 College is the location of the national headquarters of the American Optometric Association, 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 emphasizes optical and biomedical sciences and introduces students to optics of the visual system. The second year covers vision science and instruction in eye examination techniques. The third year emphasizes patient care and introduces the student to various specialty areas within optometry, such as contact lenses, pediatrics and geriatric vision care, binocular vision and vision therapy, and low vision rehabilitation. The second and third years also include course work and clinical instruction in ocular disease and pharmacology. The fourth year includes six rotations through the externship program, giving

the student added experience in the management of eye diseases, as well as valuable experience in other optometric clinical specialties.

Fourth-Year Externship Program

In addition to the patient care experiences available through the University Eye Center, Optometric Center, the East St. Louis Center, and the Harvester Eye Center, the College of Optometry also has a diverse Externship Program. Students must receive approval from the faculty and the Director of Externships for assignments to each Externship site. This program allows fourth-year students to spend a portion of their final year of training in a variety of patient care environments (i.e., military bases, Veterans Administration Hospitals, Indian Health Services Hospitals, various specialty practices and private practices).

These eight (8) week Externships are selected and scheduled 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. The Externship rotations are set up to give students' exposure in the following areas:

Pediatric/Binocular Vision Patient Care
Contact Lens Patient
Low Vision Patient
General (Primary Optometric) Patient Care
Ophthalmic Lasers
Ocular Disease
Geriatric Patient Care
Ophthalmic Surgical Patient Care
Sports Vision Patient Care
Pathology and Treatment Patient Care
Optometric Rehabilitation Patient Care

Externships Rotations are located at a variety of domestic and international sites.

Student Organizations & Activities

All optometry students enrolled in the University of Missouri-St. Louis College of Optometry are eligible for membership in the various student optometric associations, including AOSA affiliated with the American Optometric Association and MOSA which is affiliated with the Missouri Optometric Association. Through these organizations, and many others, students become involved in local and national optometric activities. The organizations provide an environment for the cultivation of professional leadership skills, and members have organized and participated in a variety of community service activities, including community health screenings and vision care to residents of nursing homes, convalescent hospitals, and mental institutions. Furthermore, optometry students have formed local chapters of 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 College of Optometry, optometry students are able to take advantage of all the activities provided by the university to the entire university community. These include intramural sports, movies and cultural activities, a modern, fully-equipped gymnasium, and access to many social and cultural opportunities in St. Louis at reduced cost.

Pre-Optometry Programs

The University of Missouri - St. Louis offers a four-year program of study leading to the doctor of optometry degree; this professional degree is administered by the College of Optometry. It is one of only 17 currently accredited schools of optometry in the United States and the only one in the state of Missouri. This program, as a result, makes UMSL an ideal institution for pre-optometry education. Various programs are available for pre-optometry as noted below.

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

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

For the programs described above (Scholars or 3+4), the undergraduate degree is granted when the student satisfactorily completes the first year of the professional program and has met all of the conditions for the specific undergraduate degree for which the student has applied.

1) All general education requirements and all requirements for the biology or physics major, or other major, except electives, must be completed. 2) Any deficiency in required courses must be remedied with courses taken at UMSL within three years after entering the College of Optometry. 3) Up to 6 hours from the College of Optometry may be substituted for undergraduate degree in Biology with approval of the Department of Biology. 4) Up to six hours is used to satisfy degree requirements in biology, and 14 hours of physics to complete the B.S. in Physics degree. For more information, contact the Department of Biology, (314) 516-6200 or the Department of Physics and Astronomy at (314) 516-5931. The Department of Chemistry offers a similar

program, and may require summer research in order to complete the degree requirements for a B.A. or B.S. in Chemistry. For more information, please contact the Department of Chemistry and Biochemistry at (314) 516-5311.

In some cases, students are admitted to the optometry program without a degree.

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

Admission Requirements

Semester:

English - 2+

Biology (including laboratory)* - 3

Physics (including laboratory) - 2

Chemistry**

General (including laboratory) - 2

Organic (including laboratory) - 1

Mathematics***

Calculus - 1

Statistics - 1

Psychology - 2

Liberal Arts - 2+

Quarter:

English - 3+

Biology (including laboratory)* - 4

Physics (including laboratory) - 3

Chemistry**

General (including laboratory) - 3

Organic (including laboratory) - 2

Mathematics ***

Calculus - 1

Statistics - 1

Psychology - 2

Liberal Arts - 2+

*One semester (or one quarter) of Microbiology with laboratory is a requirement. One semester of Anatomy or Physiology is recommended.

+Courses may be taken and accepted for prerequisite course work AP (Advanced Placement) without a grade if the student receives a 320 or higher on the Reading Comprehensive section of the OAT examination (see below, Admission Test) and a GPA of 3.0.

**One semester of Biochemistry, Cell Biology or Human/Comparative Physiology is recommended.

***Trigonometry as a prerequisite course for Calculus must be completed either in high school (official high school transcripts required as proof) or college.

The College of Optometry uses a rolling admissions process. All courses used to satisfy the admission requirements must

have been taken at a fully accredited institution. Specific prerequisite courses must be taken for a letter grade; they cannot be taken as an audit or on a pass/fail or satisfactory/unsatisfactory basis. Applicants must have completed 90 semester or 135 quarter hours (the equivalent of three years of college education) before the start of classes. In order to process financial aid awards, it is strongly recommended that students complete all prerequisite courses the spring prior to admission. The applicant cannot apply more than 60 semester hours or 90 quarter hours which were earned at a two-year institution toward the credit-hour requirement. Applicants holding a bachelor's degree will be given preference over applicants with similar academic credentials who do not have a degree. Applicants to the college come from a variety of undergraduate backgrounds, such as biological sciences, chemistry, psychology, education, and business.

Admission Test

Students should work with their undergraduate advisors as well as their academic advisor in optometry, to insure that all pre-requisite courses are taken prior to taking the Optometry Admission Test (OAT), which is required prior to being offered an interview for consideration for admission to the College of Optometry.

All applicants are required to take the Optometry Admission Test (OAT). The OAT is now offered through computer sites. As the computerized version may be scheduled at any time, please plan to take the OAT by June of the year you plan to apply in order to be considered for early admission. Official test scores are acceptable for up to three years from the testing date.

Applicants are encouraged to take the examination by June of the year of application to the College of Optometry. If applicants wish to enhance their scores, the examination may be repeated. For an OAT application packet and additional information, contact:

Optometry Admission Testing Program
211 East Chicago Ave.
Suite 1846
Chicago, IL 60611
(312) 440-2693
<http://www.opted.org>

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. \$50.00 non-refundable application fee payable to the University of Missouri - St. Louis.
3. Official high school and college transcripts, followed by updated transcripts as they become available.

[Exception: graduates of international programs see deadline requirement for all transcripts.]

4. Official Optometry Admission Test (OAT) results.
5. 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.

Official transcripts must be mailed from every college attended, regardless of whether or not credit was earned.

Letters of recommendation must be mailed directly to the college by the originator. It is the applicant's responsibility to ensure all application materials are received in the office of Student Services by February 15 [International students: transcripts by December 15 year prior] to be considered for admission to the class entering in August of the same year. Facsimile (faxed) application material will be not accepted or acknowledged. Application material received after February 15 will not be evaluated for the class entering in August of the same year. To be considered for merit scholarships, there is an early enrollment deadline. **All materials must be received by December 15 in order to be considered for the early application deadline.** Applications received after that time will still be considered for admission but not additional awards, e.g. merit scholarships, state seat contracts

All correspondence, inquiries and application material should be addressed to:

University of Missouri - St. Louis
College of Optometry
Office of Student Services
317 Marillac Hall
One University Blvd.
St. Louis, MO 63121-4400

Applications may also be submitted online by accessing an application at <http://optometry.umsl.edu>. Click on "applying to the college."

International Students

International students whose native language is not English and who have spent less than two of the last three years in an English-speaking country are required to submit scores from an internationally accepted standardized examination before a decision is made on admission.

To complete their credential file, applicants are required to furnish original and official transcripts **before December 15th, the year prior to admission** from each school and college attended both in this country and abroad. The Educational Credentials Evaluators, Inc. or the World Education Services must evaluate **all foreign school and college transcripts** and their evaluation submitted as part of the application requirement. For information contact:

Educational Credentials Evaluators, Inc.
Post Office Box 514070
Milwaukee, WI 53203-3470
(414) 289-3400
Fax: (414) 289-3411
E-mail: eval@ece.org
Web site: <http://www.ece.org>

World Education Services
Bowling Green Station
P.O. Box 5087
New York, N.Y. 10274-4087
(212) 739-6100
Fax: (212) 966-6395
E-mail: info@wes.org
Web site: <http://www.wes.org>

The University of Missouri-St. Louis maintains an Office of International Student Services to assist applicants who have been offered admission. All new international students are required to attend a formal orientation program before matriculation. For more information, contact:

University of Missouri-St. Louis
Office of International Student Services
One University Blvd.
St. Louis, MO 63121-4499
(314) 516-5229

Selection Procedures

Applications are reviewed beginning in August with interviews scheduled and initiated starting in October. The college uses a 'rolling admissions' process that allows qualified applicants to be admitted on an ongoing basis until the class is filled. Therefore, applicants are encouraged to apply as early as possible to ensure full consideration for admission.

The Admissions Committee has the responsibility to review and evaluate all applicants and select the best qualified candidates. The committee considers: an applicant's overall grade point average, the grade point achieved in the sciences, any grade trends over the years in college, and the scores on the OAT. Concurrently, candidates are evaluated on less quantitative measures such as extracurricular activities and interests, related or unrelated work experience, written narrative, and letters of recommendation. Those applicants whom the committee feels to be most competitive will be invited for an on-campus interview. The on-campus interview facilitates an assessment of the applicant's communication skills, interests, motivation, and personal characteristics. In addition, the on-campus interview allows the applicant to tour the facilities, meet with currently enrolled students, present questions regarding financial aid and housing, and learn more about the University of Missouri-St. Louis and the College of Optometry. From this group of interviewed applicants, the entering class of approximately 44 students will be selected.

The policies of the University of Missouri-St. Louis and the College of Optometry comply with the provisions under those laws that forbid discrimination on the basis of race, color, religion, sex, sexual orientation, national origin, age, disability or status as a Vietnam era veteran.

Admission Process

Notices of acceptance may be received as late as June of the year in which the students enter the program. If acceptance to the class is conditional, the terms of the condition must be completed prior to matriculation. Applicants who have indicated that degree requirements will be completed prior to matriculation, and who have been selected for admission, may receive a conditional offer of acceptance contingent upon completion of the degree.

Students offered admission have 15 days from the date on the offer of admission letter to make a required \$200 acceptance deposit. The \$200 deposit will be credited toward tuition when the student matriculates. The deposit is considered a non-refundable administration fee should the student not matriculate.

A certain number of applicants are placed on an alternate list. If an applicant who has been offered admission declines the offer, their position will be allocated to the next individual on the alternate list.

Notification of denial is sent by mail. If an applicant is interested in reapplying, they should notify the College of Optometry's Office of Student Services.

Financial Aid

The University of Missouri-St. Louis maintains an Office of Student Financial Aid to assist students with the cost of their education.

Financial assistance is available in the form of grants, loans, scholarships, and work-study. Funds for these programs are available from federal, private, state, and institutional resources. To apply for financial aid, students must complete a Free Application for Federal Student Aid (FAFSA). Preference will be given to those students who have completed the FAFSA by April 1. Preference means that the Student Financial Aid Office will begin awarding FWS (Federal College Work-Study), Federal SEOG (Federal Supplemental Educational Opportunity Grant) and Federal Perkins Loan funds. A completed financial aid application means that the Financial Aid Office has received an official Student Aid Report from the Federal Processing Center. Information about federal loan programs and FAFSA are available at www.fafsa.ed.gov

The Student Financial Aid Office maintains a Web site at www.umsl.edu/services/financial, where students will find useful information along with the ability to contact the office electronically via e-mail. Also included is a scholarship directory that is updated biweekly.

To be considered for all university scholarships offered through the Financial Aid Office, a student must be accepted for admission.

Many state optometric associations and their auxiliaries offer scholarships and grants. Application is generally made directly to the state association or auxiliary and selection is generally made on the basis of state residence and other criteria. Information may be obtained by writing to the various state optometric associations and/or auxiliaries. The College of Optometry will provide additional information about scholarships and the college's Handbook of Loans, Scholarships, Grants, and Awards to applicants after being admitted. Many of the College's scholarships are listed on the College website.

Fees

Detailed information regarding current fees and residency regulations is furnished in the *Schedule of Courses*, a newspaper schedule distributed before each semester registration, available at the Registrar's Office in the Millennium Student Center. 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

All students enrolled in the University must pay educational fees based on either the schedule for Missouri residents or the schedule for non-residents. All optometry students will be required to pay the non-resident educational fee if they do not meet the University of Missouri residency requirements at the time of enrollment.

	Resident	Non-resident
Summer 2008*	\$4,841.94	\$8,737.94
Fall 2008	9,588.88	17,356.94
Spring 2009	9,588.88	17,356.28

Fees do not include Parking Fees, and since the IT fee is not a capped fee, these are an average cost per semester.

The Educational Fees plateau is 16.0 credit hours. Any student enrolled for less than 16.0 credit hours will be charged per credit hour at \$557.10. Nonresidents pay an additional non resident fee of \$485.50 per credit hour. Please note "Other Required Fees" below; these are additional required fees.

*A Summer Session is required between the third and fourth professional year.

Other Required Fees

All students are required to pay the following fees each semester: Information Technology Fee; Student Facility, Activity, and Health Fee; and, if needed, Parking Fee. Please refer to the Fees Section of the website at

www.umsl.edu/services/finance/fees.htm for current fees and caps on fees.

Student Health Insurance (optional)

An Accident and Sickness Insurance plan is available to students and their dependents. Information concerning premiums and coverage is available upon request from University Health Services or visit their website at www.umsl.edu/services/health or call (314) 516-5671. For students registered at UM-St. Louis College of Optometry, health insurance is available through the American Optometric Student Association. Visit the website at http://www.studentinsurance.net/Public/ClientBrochures/2004_1849_1.pdf

*Nonresident Students

Optometry students who do not meet the residency requirements must pay the nonresident educational fee according to the schedule above. A definition of "residency" is outlined in *Tuition and Residency Rules*, available in the cashier's office. (314)516-5151. Students are responsible for registering under the proper residence and paying the proper educational fees.

Currently, twelve nonresident positions for all four years are allocated by state reciprocal agreements for residents of Kansas. Individuals who are admitted under these agreements will pay reduced non-resident fees. To apply for this award, applicants must be certified as a bona fide Kansas resident and meet financial need (FAFSA). Seats are not offered until after FAFSA data is available. Additionally, Kansas residents accepting a seat are required to return to Kansas to practice following graduation or completion of a residency program. For additional information, contact:

Kansas Board of Regents
Kansas Optometry Service Scholarship
1000 S.W. Jackson St., Suite 520
Topeka, KS 66612-1368
(785) 296-3518.

The College of Optometry currently has a State contract agreement for residents of Nebraska. This contract permits the College of Optometry to admit one eligible Nebraska resident in each entering class to receive the award. For detailed information about the contract and to be certified as a bona fide Nebraska resident, contact:

Dr. Richard Hoffman
University of Nebraska
3835 Holdrege
Lincoln, NE 68583
(402) 472-7115

Four-Year Professional Degree (O.D.) Curriculum

First Year

Fall Semester	Credit Hours	Lecture	Lab
8010 Anatomy, Physiology and Disease Processes I	5	4	2
8020 Geometric Optics	4	3	2
8030 Introduction to Optometry	1	1	-
8040 Neuroanatomy	4	3	2
8060 Biochemistry	3	3	-
8090 Case Based Discovery For the Developing Clinician I	1	1	-
8350 Epidemiology	2	2	-

Winter Semester

8090 Case Based Discovery for the Developing Clinician I	1	-	-
8110 Anatomy, Physiology and Disease Processes II	5	4	2
8120 Ocular Optics	4	3	2
8140 Physical Optics and Photometry	3	2	2
8160 Anatomy and Physiology of the Eye	5	4	2
8180 Clinical Optometry I	5	3	4

Second Year

Fall Semester

8220 Ophthalmic Optics	4	3	2
8230 Interpersonal Communications	2	2	-
8240 Ocular Motility	4	3	2
8250 Monocular Sensory Processes	5	4	2
8260 Foundations of Ocular And Systemic Disease And Management I	3	3	-
8280 Clinical Optometry II	5	3	4

Winter Semester

8320 Ophthalmic Dispensing	1	-	2
8340 Binocular Vision and Space Perception	4	3	2
8370 Foundations of Ocular and Systemic Disease and Management II	7	6	2
8380 Clinical Optometry III	5	3	4
8560 Public Health	2	2	-

Third Year

Fall Semester	Credit Hours	Lecture	Lab
8500 General Clinic I	6	-	12
8520 Contact Lenses I	3	2	2
8540 Binocular Vision Anomalies	4	3	2
8550 Low Vision	3	2	2
8570 Advanced Topics In Ocular and Systemic Disease Management	6	5	2

Winter Semester

8600 General Clinic II	6	-	12
8610 Environmental Vision	2	2	-
8620 Contact Lenses II	3	3	-
8630 Practice Management III	3	3	-
8640 Pediatric Optometry	3	3	-
8650 Geriatric Optometry	2	2	-
8660 Contact Lens Specialty Clinic	1	-	2
8670 Ocular Assessment	1	1	-
8680 Ophthalmic Lasers	1	1	-
8690 Pediatric /Binocular Specialty Clinic I	1	-	2

Fourth Year

Category 1 UMSL

Note: Must enroll in 8700, 8710, and 8720 concurrently

8700 UM-St. Louis Pediatric/ Binocular Vision Patient Care	3	-	6
8710 UM-St. Louis Contact Lens Patient Care	3	-	6
8720 UM-St. Louis Eye Health Management Patient Care	1	-	2

Category 2 Institutional

8780 External Rotation in Institutional Patient Care	7	-	14
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Category 3 Ocular Disease

8790 External Rotation in Ocular Disease Patient Care	7	-	14
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Category 4 Intern

Note: Must enroll in 8730 and 8740 concurrently. Must enroll in 8750 and 8860 concurrently.

8730 Optometric Center Patient Care	6	-	12
8740 Optometric Center Eye Health Management Patient Care	1	-	2
8750 East St. Louis Center Patient Care	6	-	12

8760 Harvester Eye Center Patient Care	7	-	14
8770 Community Service in Rotation in Patient Care	7	-	14
8860 East St. Louis Eye Health Management Patient Care	1	-	2

Credit

Category 5 Specialty

	Hours	Lecture	Lab
8800 External Rotation in Pediatric/Binocular Vision Patient Care	7	-	14
8810 External Rotation in Contact Lens Patient Care	7	-	14
8811 External Rotation in Ophthalmic Surgical Patient Care	7	-	14
8812 External Rotation in Geriatric Patient Care	7	-	14
8813 External Rotation in Ophthalmic Sports vision	7	-	14
8814 External Rotation In Primary Care	7	-	14
8815 External Rotation in Pathology and Treatment	7	-	14
8816 External Rotation in Ophthalmic Laser Treatment	7	-	14
8817 External Rotation in Rehabilitative Patient Care	7	-	14
8820 External Rotation in Low Vision Patient Care	7	-	14

Category 6 Elective

8830 External Rotation in General Patient Care	7	-	14
8840 External Supplementary Rotation in General Patient Care	7	-	14
8850 Supplementary Rotation In General Patient Care	7	-	14

Required Courses

8870 Practice Management IV	2	2	1
8880 Clinical Seminar	1	1	-

Due to advances in the optometric profession, sequencing of courses may change. The courses listed above are subject to change through normal academic procedures.

Elective Courses in the College of Optometry

- 8400 Directed Readings
- 8410 Directed Research
- 8420 Ocular Photography
- 8440 Clinical Applications of Current Topics in Visual Science
- 8470 Case Studies in Ocular Diseases
- 8910 Topics in Geriatric Optometry
- 8970 Geriatric Patient Care Delivery

Graduate Vision Science Courses Approved for Elective Credit*

- 6400 Sensory Processes and Perception

- 6401 Visual Optics
- 6402 Ocular Anatomy and Physiology
- 6403 Psychophysical Methods and Experimental Design
- 6404 Sensory Neuroscience
- 6470 Individual Studies in Vision Science
- 6490 Graduate Research in Vision Science
- 6497 Interdisciplinary Geriatric Care
- 6499 Current Topics in Optometry and Vision Science

**Curricular Outcomes
Entry Level Standards**

Doctors of Optometry must have an established knowledge of the basic and clinical sciences in order to provide quality eye and vision care to their patients. The academic foundation must be broad and include the biological, medical, vision and optical sciences, as well as a basic understanding of the health care delivery system. A Doctor of Optometry must recognize the dynamic nature of knowledge and possess the commitment and skills needed to responsibly assess and apply new information and treatment strategies throughout their career.

The UMSL College of Optometry shall ensure that before graduation each student will effectively utilize and demonstrate a working knowledge in patient care within each of the following areas:

- Basic body systems, with special emphasis on the ocular and visual system and their interrelationships to the body as a whole;
- The impact of genes and their interaction with behavior, diet and the environment on human health;
- The various processes and causes that lead to dysfunction and disease and the effect that these processes can have on the body and its major organ systems, with special emphasis on the ocular and visual systems;
- the mechanisms of actions of the various classes of pharmaceutical agents, including injectable agents, their interactions, along with their safe and effective use for the treatment of disease and conditions affecting the eye and visual system;
- the structures and processes contributing to the development of refractive error and other optical or perceptual abnormalities of the visual system;
- the optics of the eye and ophthalmic lens systems (including spectacles, contact lenses, and low vision devices) used to correct refractive, oculomotor and other vision disorders;
- visual development and vision function with respect to deviation and enhancement of conditions such as, but not limited to, strabismus, amblyopia, oculomotor, accommodation, and visual perception;
- vision therapy and other rehabilitative methods used for the management of common visual disorders;
- the psychosocial dynamics of the doctor/patient relationship and an understanding of the social, psychological, and economic forces affecting diverse patient populations;
- the practice management structure and strategies as they pertain to various practice settings;
- the critical elements of verbal and written communications and understanding of the need for clear and appropriate documentation of patient encounters;
- the concepts of refractive surgery and its management;

- the conscientious use of current best practices in patient care decision making;
- a broad-based multidisciplinary understanding of patient care;
- an appreciation for and a commitment to lifelong learning;
- information management and technology in the delivery of eye and health care;
- and an understanding of and commitment to uphold the ethical obligations imposed by the tenets of the Optometric Oath of Practice.

*2001 School of Optometry
Revised March, 2007*

Grades

All courses taken for credit in the professional program must be passed with a "C-" or better in order for a student to qualify for graduation. The College of Optometry does not recognize a "D" grade for courses taken for degree credit; and for a student enrolled in a patient care course.

Therefore, any grade lower than a "C-" will be recorded as an "F" and have "0" grade points. Furthermore, in order to qualify for graduation, a student must be in good academic standing and the cumulative professional GPA must be 2.5 or higher. Beginning in May 2003, students must submit evidence to the Office of Student Services that they have taken the 3 part NBEO examinations prior to graduation. Such evidence may include a copy of the score report received from NBEO.

To assure graduating at the end of a specific semester, all work for that semester and any delayed grades from previous semesters must be completed with the grades sent to the Office of Student Services no later than the official date for submission of final semester grades.

Time limitations

All of the required courses during the first six (6) semesters of first course enrollment and all required courses for the O.D. degree must be completed within six (6) years after the first course enrollment.

Graduate Studies

Vision Science

Vision science is a multidisciplinary area concerned with the study of normal and anomalous vision. The goal of this program is to train the next generation of researchers in clinical and basic vision science, to conduct research, and to educate faculty for schools and colleges of optometry. Students will be required to integrate basic skills in vision science with focal studies in an area of research emphasis.

This program will emphasize research aimed at new treatments and cures for vision disorders, as well as research in basic mechanisms of visual functions. The College of Optometry offers both an M.S. degree and a Ph.D. degree. Students may apply to the Graduate School for admission to either the M.S. or the Ph.D. program.

Admission Requirements

Students must have the appropriate background for graduate training in vision science and appropriate undergraduate courses for their anticipated research emphasis. Applicants must have a bachelor's degree from an accredited college or university within the United States or from an equivalent institution outside the United States. To be admitted as regular graduate students, applicants must have a grade point average of at least 3.0 in their overall undergraduate work, in their undergraduate major, and in any post baccalaureate academic work. Students must arrange for transcripts to be submitted from all postsecondary academic work and to have at least three letters of recommendation sent by faculty members at previously attended colleges and universities. Students must also submit GRE scores (verbal, quantitative, and analytic). Applicants to the M.S. program must have combined scores on the verbal and quantitative sections of at least 1000; applicants to the Ph.D. program must have combined scores of at least 1100. In addition, students from countries where English is not a primary language must submit TOEFL scores of 550 (paper based) 213 (computer based), or 80 (internet based) or better. All materials and scores must be submitted by March 1 if an applicant wishes to be considered for financial assistance for the Fall semester. Early applications are encouraged.

Master of Science in Vision Science

Curricular Outcomes

The graduate of the Masters of Science in Vision Science degree program will:

1. Demonstrate an understanding of concepts across a number of core disciplines in Vision Science.
2. Show an ability to critically analyze the primary literature in Vision Science.
3. Understand how to analyze and interpret scientific data in Vision Science.
4. Conduct, analyze and defend a thesis project.

For the Masters degree students must complete the 5 core courses (6400, 6401, 6402, 6403, 6404). Students must take 15 more credits and successfully defend their Master's Thesis. Students are expected to present their research both on campus (department seminars or Graduate Research Fair) (Outcome 2, 3). The capstone experience is a public defense of the thesis as well as a written and oral defense of the thesis from the thesis committee (Outcome 4).

Degree Requirements

The M.S. degree requires 30 semester hours of course work, including the core courses. At least 24 of these hours will normally be taken from courses offered by the College of Optometry, with no more than 10 of these in VIS SCI 6490, Graduate Research in Vision Science. Each M.S. student will be required to teach at least two semesters in areas determined by the Graduate Committee in Vision Science.

The core courses for this program are:

- VIS SCI 6400, Sensory Processes and Perception
- VIS SCI 6401, Visual Optics
- VIS SCI 6402, Ocular Anatomy and Physiology
- VIS SCI 6403, Psychophysical Methods and Experimental Design
- VIS SCI 6404, Sensory Neuroscience

Special Topics, Individual Studies, and Advanced Topics courses in Vision Science are also offered.

Each M.S. student must also complete a thesis based on research conducted during the program. The thesis must be approved by a committee of at least three members of the graduate faculty, at least two of whom must be from the graduate faculty in Vision Science.

Ph.D. in Vision Science

Curricular Outcomes

The graduate of the Ph.D. in Vision Science degree program will:

1. Demonstrate an understanding of concepts across a number of core disciplines in Vision Science;
2. Show an ability to critically analyze the primary literature in Vision Science;
3. Understand how to analyze and interpret scientific data in Vision Science;
4. Develop skills and knowledge to establish a program of research in Vision Science;
5. Design, conduct and defend a dissertation that contributes to the Vision Science literature and shows independent creative thought.

Upon completing the core courses a Ph.D. candidate must pass a Qualifying Exam covering topics in 4/5 core course areas: Visual Optics, Psychophysical Methods, Experimental Design Ocular Anatomy and Physiology, Sensory Neuroscience, and Sensory Processes and Perception. Members of the graduate committee who were involved with the core courses will submit questions to be answered and grade the exams. The successful completion of the Qualifying exam establishes the student's Ph.D. candidacy. Students are expected to present their research both on campus (department seminars or Graduate Research Fair) (Outcome 2, 3, 5). Students are also expected to present their work at a national meeting (e.g. ARVO, AAO, VSS, SFN). The capstone experience is a public defense of

the dissertation as well as a written and oral defense of the dissertation from the dissertation committee (Outcome 6).

Degree Requirements

The doctoral degree requires 60 semester hours of course work, including the core courses. Each Ph.D. student will also be required to demonstrate proficiency in a foreign language, computer language, advanced statistical methods,

or another acceptable tool skill. The tool skill and level of proficiency must be selected in advance in consultation with the Graduate Committee in Vision Science. Students will be required to teach at least two semesters in areas determined by the Graduate Committee in Vision Science.

Written qualifying examinations will be offered each semester. Students must declare their intent to take the examinations at least one month prior to the beginning of that semester or summer session. Full-time students must attempt qualifying examinations before beginning their third year of study. Students must declare their intent to take the examinations at least one month prior to the beginning of that semester or summer session.

The preparation of the dissertation will be supervised by a dissertation committee which will be appointed by the Graduate Dean upon the recommendation of the Director of Graduate Programs in the College of Optometry. Input from the student's advisor will be solicited by the Director prior to finalization of the recommendation by vote of the Graduate Faculty. An oral examination of the written dissertation proposal will be conducted by the Committee. A public oral defense of the completed written dissertation is also required.

The core courses for this program are:

VIS SCI 6400, Sensory Processes and Perception
VIS SCI 6401, Visual Optics
VIS SCI 6402, Ocular Anatomy and Physiology
VIS SCI 6403, Psychophysical Methods and Experimental Design
VIS SCI 6404, Sensory Neuroscience
Special Topics, Individual Studies, and Advanced Topics courses in Vision Science are also offered.

Graduate School Online application:

http://tomsawyer.umsl.edu/webapps/Graduate_Admission/application_form.cfm

Further information about the graduate program can be obtained from:

University of Missouri-St. Louis
Office of Student Services
317 Marillac Hall
One University Boulevard
St. Louis, MO 63121-4400

Continuing Education

The College 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 College of Optometry faculty, optometric specialists, medical educators, and researchers have input into course development as well as participation in course presentations.

All CE courses offered by the school are accepted by those states requiring continuing education credit for relicensure.

Continuing Education course information may be obtained by contacting:

University of Missouri-St. Louis College of Optometry
Office of Continuing Education
One University Blvd.
St. Louis, MO 63121-4499
(314) 516-5615

Career Outlook

Doctor of Optometry Degree

Doctors of optometry are independent primary health care providers who examine, diagnose, treat and manage diseases and disorders of the visual system, the eye and associated structures as well as diagnose related systemic conditions. Optometrists examine the internal and external structure of the eyes to diagnose eye diseases like glaucoma, cataracts and retinal disorders; systemic diseases like hypertension and diabetes; and vision conditions like nearsightedness, farsightedness, astigmatism and presbyopia. Optometrists also do testing to determine the patient's ability to focus and coordinate the eyes, and to judge depth and see colors accurately. They prescribe eyeglasses and contact lenses, low vision aids, vision therapy and medicines to treat eye diseases.

As primary eye care providers, optometrists are an integral part of the health care team and an entry point into the health care system. They are skilled in the co-management of care that affects the eye health and vision of their patients and an excellent source of referral to other health care professionals. The optometrist has completed pre-professional undergraduate education in a college or university and four years of professional education at a college of optometry, leading to the doctor of optometry (O.D.) degree. Some optometrists complete a residency.

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 30,000 doctors of optometry practice

in America. They are widely distributed across the nation, practicing in more than 7,100 different municipalities. In more than 4,300 of these communities, they are the only primary care provider. As such, doctors of optometry provide the major portion of primary eye care services in the United States.

Studies have indicated that a ratio of one practicing doctor of optometry to every 7,000 people (a ratio of 14.3 practicing doctors of optometry per 100,000 population) is a reasonable average for the United States. Despite recent growth in the profession, few states meet this 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.

Course Descriptions

The following 8000-level courses are taken in the Doctor of Optometry (O.D.) program.

8010 Anatomy, Physiology and Disease Process I (5)

First in a two-semester course sequence that will detail the general anatomy of the human body along with the histology (microanatomy), physiology and disease processes of major organ systems. Course content will be presented in a modular format. Areas of discussion will include cardiovascular, respiratory, endocrine, digestive, reproductive, integumentary, and peripheral and autonomic nervous systems. The laboratories will emphasize and augment important concepts introduced in the classroom environment.

8020 Geometric Optics (4)

Prerequisite: Consent of instructor. The principles of geometric 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.

8030 Introduction to Optometry (1)

An introduction to the profession of optometry including a consideration of the characteristics of a profession, the behaviors and attitudes of a professional, the history of optometry, the profession's legal basis, the major optometric organizations, and sources and types of information available to optometrists. One hour of lecture per week.

8040 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.

8060 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.

8090 Case Based Discovery for the Developing Clinician (1)

Students acquire curricular competencies appropriate for the professional year in which they are enrolled via in depth individual and group discovery via case based presentations. The experience will provide students the opportunity to assimilate and recognize the relationships among diverse topics emphasized within the optometric curriculum. Participants work in groups of no more than 10.

8110 Anatomy, Physiology and Disease Process II (5)

Prerequisite: OPTOM 8010 and OPTOM 8060 or consent of instructor. Continuation of OPTOM 8010 Anatomy, Physiology and Disease Processes I. (Four hours lecture, two hours laboratory/week.)

8120 Ocular Optics (4)

Prerequisite: OPTOM 8020. 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.

8140 Physical Optics and Photometry (3)

Prerequisite: OPTOM 8020 or consent of instructor. Basic photometric concepts, measurements of light levels, applications in ergonomics, visual and photographic optics. Physical optics including diffraction, interference, polarization, birefringence, and lasers.

8160 Anatomy and Physiology of the Eye (5)

Prerequisite: OPTOM 8040, OPTOM 8010 and 8060 or consent of instructor. 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. Four lecture hours and a two-hour laboratory per week.

8180 Clinical Optometry I (5)

Selected tests for ocular assessment including case history, visual acuity, and ophthalmoscopy.

8220 Ophthalmic Optics (4)

Prerequisite: OPTOM 8140, and 8120. 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, selecting and dispensing eyewear, management of a dispensary.

8230 Interpersonal Communications (2)

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. Two hours of lecture per week.

8240 Ocular Motility (4)

Prerequisite: OPTOM 8040 or consent of instructor. The anatomy, physiology, neurology, measurement, characteristics, and control of the intra and extraocular system.

8250 Monocular Sensory Processes (5)

Prerequisite: OPTOM 8160 or consent of instructor. Monocular sensory processes of vision: phototransduction, visual neurophysiology, spatial and temporal vision, acuity, light adaptation and discrimination, color, motion, objects and attention. Sensory processes are considered from both the psychophysical aspects and neurophysiological bases,

including the changes during development, adulthood and aging. Four hours of lecture and two hours of laboratory per week.

8260 Foundations of Ocular and Systemic Disease and Management I

Prerequisite: OPTOM 8110. The first of a comprehensive, three semester course sequence. Topics will be discussed in a modular, systems based approach. The course introduces students to disease processes and the organ systems they affect, clinical diagnoses, pharmacology on specified organ systems and optometric and medical management of ocular and systemic disease.

8280 Clinical Optometry II (5)

Prerequisite: OPTOM 8180. Continuation of clinical optometry. Patient care in the areas of refraction, binocular integration, perimetry, and bimicroscopy.

8290 Physiological Optics Lab II (1)

Prerequisite: OPTOM 8130. Experiments designed to accompany OPTOM 8240 and OPTOM 8250.

8320 Ophthalmic Dispensing (1)

Prerequisite: OPTOM 8220. Clinical experience in verification and dispensing of ophthalmic materials.

8340 Binocular Vision and Space Perception (4)

Prerequisite: OPTOM 8240, 8280, and 8250 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.

8350 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.

8370 Foundations of Ocular and Systemic Disease Management II (7)

Prerequisites: OPTOM 8260. A continuation of a comprehensive, systems based course sequence that introduces students to disease processes and the organ systems they affect, clinical diagnoses, pharmacology on specified organ systems and optometric and medical management of ocular and systemic disease. The laboratories will emphasize and augment important concepts introduced in the classroom environment.

8380 Clinical Optometry III (5)

Prerequisite: OPTOM 8280. Correlation and analysis of optometric data. Emphasis on diagnosis, prognosis, and therapy of visual problems.

8400 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.

8410 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.

8420 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.

8440 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.

8470 Case Studies in Ocular Disease (1)

Prerequisites: OPTOM 8370 and 8570. This course features discussion of current clinical eye care topics, with attention to ocular disease diagnosis and management. Advanced diagnostic techniques, pathophysiological mechanisms of disease, and current clinic patients will also be emphasized.

8500 General Clinic I (6)

Prerequisite: OPTOM 8380 and successful completion of all first and second year course work. The clinical examination and care of general clinic patients, along with the fitting and dispensing of lenses and frames.

8520 Contact Lenses I (3)

Prerequisite: OPTOM 8380. 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.

8540 Binocular Vision Anomalies (4)

Prerequisite: OPTOM 8310 and 8340 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.

8550 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.

8560 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.

8570 Advanced Topics in Ocular and Systemic Disease and Management (6)

Prerequisite: OPTOM 8370. The third semester of a comprehensive, systems based course sequence. Advanced topics in diagnosis as well as optometric and medical management of ocular and systemic disease will be discussed. The laboratories will emphasize and augment important concepts introduced in the classroom environment.

8600 General Clinic II (6)

Prerequisite: OPTOM 8500 and successful completion of all Fall semester third year course work. Same as General Clinic I.

8610 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.

8620 Contact Lenses II (3)

Prerequisite: OPTOM 8520. 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.

8630 Practice Management III (3)

Prerequisite: OPTOM 8030 and OPTOM 8230. 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.

8640 Pediatric Optometry (3)

Prerequisite: OPTOM 8380. 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.

8650 Geriatric Optometry (2)

Same as GERON 6458. 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.

8660 Contact Lens Specialty Clinic (1)

Prerequisite: OPTOM 8520 and successful completion of all Fall semester third year course work. The clinical examination and care of patients in the optometric specialty area of contact lenses.

8670 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.

8680 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. Comanagement of patients requiring ophthalmic laser treatment will also be covered.

8690 Pediatric/Binocular Vision Specialty Clinic (1)

Prerequisite: OPTOM 8540 and successful completion of all Fall semester third year course work. The clinical examination and care of patients in the optometric specialty areas of binocular vision and pediatric vision.

8700 University of Missouri-St. Louis Pediatric/Binocular Vision Patient Care (3)

Prerequisite: Successful completion of all first, second, and third year course work. Comprehensive clinical care of patients in pediatric/binocular vision clinic at the UMSL University Eye Center. This course fulfills one of the clinic courses required for graduation. This course must be taken in conjunction with OPTOM 8710 and OPTOM 8720.

8710 University of Missouri-St. Louis Contact Lens Patient Care (3)

Prerequisite: Successful completion of all first, second, and third year course work. Comprehensive clinical care in the contact lens clinic at the UMSL University Eye Center. This

course fulfills one of the clinic courses required for graduation. This course must be taken in conjunction with OPTOM 8700 and OPTOM 8720.

8720 University of Missouri-St. Louis Eye Health Management Patient Care (1)

Prerequisite: Successful completion of all first, second, and third year course work. Comprehensive clinical care in the eye health management clinic with ophthalmologists at the UMSL University Eye Center. This course fulfills one of the clinic courses required for graduation. This course must be taken in conjunction with OPTOM 8700 and OPTOM 8710.

8730 Optometric Center Patient Care (6)

Prerequisite: Successful completion of all first, second, and third year course work. 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 OPTOM 8740.

8740 Optometric Center Eye Health Management Patient Care (1)

Prerequisite: Successful completion of all first, second, and third year course work. Comprehensive clinical care of patients in the eye health 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 OPTOM 8730.

8750 East St. Louis Center Patient Care (6)

Prerequisite: Successful completion of all first, second, and third year course work. Comprehensive clinical care of patients at the East St. Louis Eye Center. This course fulfills one of the clinic courses required for graduation. This course must be taken in conjunction with OPTOM 8850.

8760 Harvester Eye Center Patient Care (7)

Prerequisite: Successful completion of all first, second, and third year course work. Comprehensive clinical care of patients at the Harvester Eye Center. This course fulfills one of the clinic courses required for graduation.

8770 Community Service Rotation in Patient Care (7)

Prerequisite: Successful completion of all first, second, and third year course work. Comprehensive clinical care of patients at St. Louis area community health centers. This course fulfills one of the clinic courses required for graduation.

8780 External Rotation in Institutional Patient Care (7)

Prerequisite: Successful completion of all first, second, and third year course work. Comprehensive clinical care of primary care patients at external sites approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

8790 External Rotation in Ocular Disease Patient Care (7)

Prerequisite: Successful completion of all first, second, and third year course work. Comprehensive clinical care of patients with ocular disease at external sites approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

8800 External Rotation in Pediatric/Binocular Vision Patient Care (7)

Prerequisite: Successful completion of all first, second, and third year course work. Comprehensive clinical care of pediatric/ binocular vision patients at an external site approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

8810 External Rotation in Contact Lens Patient Care (7)

Prerequisite: Successful completion of all first, second, and third year course work. Comprehensive clinical care of contact lens patients at an external site approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

8811 External Rotation in Ophthalmic Surgical Patient Care (7)

Prerequisites: Successful completion of all second & third year coursework. Comprehensive clinical care of Ophthalmic Surgical Patients at an external site approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

8812 External Rotation in Geriatric Patient Care (7)

Prerequisites: Successful completion of all second & third year coursework. Comprehensive clinical care of Geriatric Patients at an external site approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

8813 External Rotation in Ophthalmic Sports Vision (7)

Prerequisites: Successful completion of all second & third year coursework. Comprehensive clinical care of Sports Vision Patients at an external site approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

8814 External Rotation in Primary Care (7)

Prerequisites: Successful completion of all second & third year coursework. Comprehensive clinical care of Primary Care Patients at an external site approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

8815 External Rotation in Pathology and Treatment (7)

Prerequisites: Successful completion of all second & third year coursework. Comprehensive clinical care in pathology and treatment of patients at an external site approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

8816 External Rotation in Ophthalmic Laser Treatment (7)

Prerequisites: Successful completion of all second & third year coursework. Comprehensive clinical care in ophthalmic laser treatment of patients at an external site approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

8817 External Rotation in Rehabilitative Patient Care (7)

Prerequisites: Successful completion of all second & third year coursework. Comprehensive clinical care in Rehabilitative Patient Care at an external site approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

8820 External Rotation in Low Vision Patient Care (7)

Prerequisite: Successful completion of all first, second, and third year course work. Comprehensive clinical care of low vision patients at an external site approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

8830 External Rotation in General Patient Care (7)

Prerequisite: Successful completion of all first, second, and third year course work. Comprehensive clinical care of a general population of optometric patients at external sites approved by the College of Optometry's Externship Council. This course fulfills one of the clinic courses required for graduation.

8840 External Supplementary Rotation in General Patient Care (7)

Prerequisite: Successful completion of all first, second, and third year course work. Comprehensive clinical care of general population of optometric patients at an external site approved by the College of Optometry's Externship Council.

8850 Supplementary Rotation in General Patient Care (7)

Prerequisite: Successful completion of all first, second, and third year course work. Comprehensive clinical care of general population of optometric patients at the UM-St. Louis University Eye Center, UM-St. Louis Optometric Center, or the UM-St. Louis East St. Louis Eye Center.

8860 East St. Louis Eye Health Management Patient Care (1)

Prerequisites: Successful completion of all first, second, and third year course work. Comprehensive clinical care of patients in the eye health management clinic with ophthalmologists at the East St. Louis Eye Center. This course fulfills one of the clinical courses required for graduation. This course must be taken in conjunction with OPTOM 8750.

8870 Practice Management IV (2)

Prerequisite: Successful completion of all first, second, and third year course work. Further in-depth discussion in practice management.

8880 Clinic Seminar (1)

Prerequisite: Successful completion of all first, second, and third year course work. 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.

8910 Topics in Geriatric Optometry (3)

Prerequisite: OPTOM 8650. 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.

8970 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.

The following 6000-level courses may be taken in the Master of Science or doctor of philosophy programs in Vision Science.

6400 Sensory Processes and Perception (3)

Prerequisite: Graduate standing in vision science or consent of instructor. 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.

6401 Visual Optics (3)

Prerequisite: Graduate standing in vision science 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.

6402 Ocular Anatomy and Physiology (3)

Prerequisite: Graduate standing in vision science or consent of instructor required for graduate students not in Vision Science. 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.

6403 Psychophysical Methods and Experimental Design (3)

Prerequisite: Graduate standing in vision science or consent of instructor. 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.

6404 Sensory Neuroscience (3)

Prerequisite: Graduate standing in vision science 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.

6405 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 VIS SCI 6405 and OPTOM 8040.

6406 Geometric Optics (5.0)

Prerequisites: 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 VIS SCI 6406 and OPTOM 8020.

6451 Corneal Physiology (2.0)

Prerequisites: 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.

6452 Growth and Development of the Visual System (2.0)

Prerequisites: 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.

6453 Advanced Physiology of Other Sensory Systems (2)

Prerequisites: Completion of core or consent of instructor. This course will deal with the structure and function of the auditory, vestibular, olfactory, and somato-sensory systems. Particular emphasis will be placed on similarities and interrelationships between these senses and vision.

6454 Binocular Vision (2)

Prerequisites: 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.

6457 Comparative and Evolutionary Aspects of Vision (2)

Prerequisites: 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.

6458 Noninvasive Assessment of the Visual System (2)

Prerequisites: 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 being of older adults) will be provided. Clinical, theoretical, and educational perspectives will be presented.

6499 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.

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.).

6459 Introduction to Computer Programming for Vision Research (3)

Prerequisites: Graduate standing in vision science or consent of instructor. 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. Example and assignments will focus upon research applications in vision science.

6470 Individual Studies in Vision Science (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.

6490 Graduate Research in Vision Science (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.

6497 Interdisciplinary Geriatric Care (2)

Same as GERON 6497. Prerequisite: Consent of instructor. Interdisciplinary approaches that address the medical and social needs of the elderly will be examined. Information about geriatric care and social issues affecting the we l-

University of Missouri-St. Louis/Washington University Joint Undergraduate Engineering Program

Administration

Joseph A. O'Sullivan, Dean
Ph.D., University of Notre Dame
Bernard J. Feldman, Associate Dean
Ph.D., Harvard University
Mary McManus, Academic Advisor
M.Ed., University of Missouri-St. Louis

Faculty

Philip V. Bayly, Professor
Ph.D., Duke University
Thomas Bush, Adjunct Professor and Advisor
D.Sc., University of Kansas
Christopher I. Byrnes, Professor
Ph.D., University of Massachusetts
Phillip L. Gould, Professor
Ph.D., Northwestern University
Paul Groszewski, Professor and Advisor
M.S., Washington University
Raimo J. Hakkinen, Professor
Ph.D., California Institute of Technology
Thomas G. Harmon, Professor
Ph.D., Massachusetts Institute of Technology
Kenneth Jerina, Professor
D.Sc., Washington University
I. Norman Katz, Professor
Ph.D., Massachusetts Institute of Technology
Shawn Leight, Adjunct Professor
M.S., University of Wisconsin at Madison
Nathan McGregor, Adjunct Professor
Ph.D., Washington University
Arye Nehorai, Professor
Ph. D., Stanford University
David A. Peters, Professor
Ph.D., Stanford University
Daniel L. Rode, Professor
Ph.D., Case Western Reserve University
Shankar M. L. Sastry, Professor
Ph.D., University of Toronto
Barry E. Spielman, Professor
Ph.D., Syracuse University
Karl Spuhl, Adjunct Professor
M.S., St. Louis University
Srinivasan Sridharan, Professor
Ph.D., University of Southampton
Kevin Z. Truman, Professor
Ph.D., University of Missouri - Rolla
James C. Ballard, Associate Professor
M.A., Washington University

Roger D. Chamberlain, Associate Professor
D.Sc., Washington University
Carl A. Baggett, Adjunct Professor and Advisor
M.S., University of Missouri-Rolla
Ricardo L. Actis, Adjunct Professor
D.Sc., Washington University
Harold J. Brandon, Affiliate Professor
D.Sc., Washington University
Alan C. Wheeler, Affiliate Professor
Ph.D., Stanford University
Mario P. Gomez, Adjunct Professor
Ph.D., Stanford University
John D. Corrigan, Adjunct Professor
Ph.D., University of Missouri-Rolla

General Information

The Joint Undergraduate Engineering Program of the University of Missouri-St. Louis and Washington University was approved in 1993 by the University of Missouri and the Coordinating Board for Higher Education. The program is designed to offer course work beyond the pre-engineering courses at UMSL and the area community colleges. Pre-engineering and general education courses are offered at UMSL, and upper-level engineering courses are offered in the evenings and on Saturdays on the Washington University campus: this schedule permits students to co-op during the day at local engineering firms. Students will be admitted to the upper-division program only after they have completed an acceptable pre-engineering program. They can earn a bachelor of science in civil engineering (B.S.C.E.), a bachelor of science in electrical engineering (B.S.E.E.), or a bachelor of science in mechanical engineering (B.S.M.E.).

The B.S.C.E., the B.S.E.E., and the B.S.M.E. are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 – telephone: (410) 347-7700.

Mission Statement

The mission of the UMSL/WU Joint Undergraduate Engineering Program is consistent with the mission of UMSL which is to provide a high quality education leading to a well-trained, sophisticated work force primarily for the St. Louis region. The program strives to excite and nurture the intellectual, technical, professional and personal development of the students through a partnership which provides a mechanism for Washington University to share its campus, resources and personnel with the UMSL students, many of whom are place-bound individuals. The Joint Program reflects the eagerness of the institutions to work in unison to serve the needs of the St. Louis community.

Educational Objectives

The aspirations of the UMSL/WU Joint Engineering Program are to make positive, substantive and lasting contributions to the lives of our students. In this manner, the students should be able to apply their comprehensive education within the engineering profession or an alternatively related field.

The objectives of the program are structured to impart an education that constitutes the essential ingredients for Civil, Electrical and Mechanical Engineering practice. The alumni of these programs are expected to develop professional skills that facilitate their continued career growth well beyond their graduation. The objectives also build on the fact that the typical nontraditional and traditional students in these programs often have work experience in or related to engineering practice.

The principal objectives of the UMSL/WU Joint Undergraduate Engineering Program are:

To impart an education in the Civil, Electrical and Mechanical Engineering disciplines that inspires the graduates to constantly share their knowledge with others, to continually improve their knowledge and understanding, and to persistently adapt to change in technology and world needs.

Specifically, the goals of the programs are:

1. To have the ability to apply fundamental knowledge in mathematics and science in the solution of technical problems;
2. To have the ability to investigate, carry out and perform all elements of the design process in the respective engineering practice;
3. To understand the need for lifelong learning to remain at the forefront of technology;
4. To understand the societal, health, environmental and human impact on their actions and to act in an ethical and legally responsible manner; and
5. To have an appreciation for and to assimilate the qualities of professional leaders and team players such as communication, networking, and integrity.

Admission

Admission to candidacy for these degrees is granted jointly by the University of Missouri-St. Louis and Washington University.

Normally admission is granted to persons who have completed the pre-engineering program with a minimum grade point average of 2.75 over all mathematics, chemistry, physics, and introductory engineering courses (statics and dynamics). Students with less than a 2.75 grade point average, but at least a C in all their science and math courses, may be admitted on a probationary basis. These

students must pass an Engineering Mathematics Workshop with a grade of B or better, and then pass JE MATH 3170 Engineering Mathematics in the first year with a C- or better, in order to continue in the program.

Degree Requirements

Bachelor of Science in Civil Engineering
Bachelor of Science in Electrical Engineering
Bachelor of Science in Mechanical Engineering

A program of 137 semester hours is required for the Bachelor of Science in Civil Engineering, a program of 127 semester hours is required for the Bachelor of Science in Electrical Engineering, and a program of 139 semester hours is required for the Bachelor of Science in Mechanical Engineering, as shown below:

All majors must complete the University General Education requirements, the Pre-Engineering Requirements and the Core Engineering Requirements. 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 JE MATH 3170, Engineering Mathematics, with a minimum grade of C-. Mechanical and Electrical Engineering majors must also complete JE ENGR 2300, Introduction to Electrical Networks with a minimum grade of C-. Civil engineering majors must complete either JE ENGR 2300, Introduction to Electrical Networks, or JM ENGR 3200, Thermodynamics, with a minimum grade of C-.

A minimum grade of C- is necessary to meet the prerequisite requirement for any course.

Pre-Engineering Requirements

MATH 1800, Analytic Geometry/Calculus I
MATH 1900, Analytic Geometry/Calculus II
MATH 2000, Analytic Geometry/Calculus III
MATH 2020, Differential Equations
CHEM 1111, Introductory Chemistry I
CHEM 1121, Introductory Chemistry II
PHYSICS 2111, Physics: Mechanics and Heat
PHYSICS 2112, Physics: Electricity, Magnetism and Optics
ENGR 2310, Statics
ENGR 2320, Dynamics
ENGL 1100, Composition

Humanities and Social Sciences Electives

The student's choice of humanities and social sciences electives must meet both the UMSL General Education Requirements and the Humanities and Social Sciences Requirements of the Joint Undergraduate Engineering Program. Check with your adviser for details. In particular:

- Three courses in humanities and three courses in social sciences must be taken.
- One of the social sciences must be a course in American history or government or in Missouri history or government
- One of the humanities courses must be Engineering Ethics (Phil 2259)
- One of the humanities or social science courses must be at the junior level or above
- The cultural diversity requirement must be fulfilled.
- Some courses that fulfill the humanities [H] or social sciences [SS] breadth of study requirement do not count as Humanities 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.

Engineering Core Requirements

J CMP SC 1002, Introduction to Computing Skills:
MATLAB Skills

CMP SC 1250, Introduction to Computing

JE MATH 3170, Engineering Mathematics

ENGL 3130, Technical Writing

JM ENGR 3200, Thermodynamics*

JM ENGR 4310/JE ENGR 4410, Control Systems I*

JE ENGR 2300, Introduction to Electrical Networks*

JE ENGR 2330, Electrical and Electronic Circuits
Laboratory *

*Required for electrical and mechanical engineering majors only.

Civil Engineering Major Requirements

JC ENGR 1451, Engineering Graphics

JC ENGR 2160, Surveying

JC ENGR 3410, Structural Analysis

JC ENGR 3420, Structural Design

JC ENGR 3520, Water and Wastewater Treatment

JC ENGR 3760, Open Channel Hydraulics

JC ENGR 4190, Soil Mechanics

JC ENGR 4200, Soil Exploration and Testing

JC ENGR 4740, Economic Decisions in Engineering

JC ENGR 4760, Site Planning and Engineering OR

JC ENGR 4670, Structural Design Projects OR

JC ENGR 4820, Design of Water Quality Control Facilities

JC ENGR 4840, Probabilistic Methods in Civil Engineering
Design

JC ENGR 4990, Senior Civil Engineering Seminar

JM ENGR 2410, Mechanics of Deformable Bodies

JM ENGR 3360, Material Science

JC ENGR 3360, Civil Engineering Materials Lab

JM ENGR 3700, Fluid Mechanics

JM ENGR 3721, Fluid Mechanics Laboratory Civil
Engineering Electives

JM ENGR 3200, Thermodynamics OR

JE ENGR 2300, Introduction to Electrical Networks

JC ENGR 3460, Transportation Engineering

JC ENGR 4600, Transportation Planning

JC ENGR 4640, Foundation Engineering

Electrical Engineering Major Requirements

JE MATH 3260, Probability and Statistics for Engineering

JE ENGR 2320, Introduction to Electronic Circuits

JE ENGR 2600, Introduction to Digital Logic and
Computer Design

JE ENGR 3300, Engineering Electromagnetic Principles

JE ENGR 3320, Power, Energy, and Polyphase Circuits

JE ENGR 3510, Signals and Systems

JE ENGR 4350, Electrical Energy Laboratory

JE ENGR 4650, Digital Systems Laboratory

JE ENGR 4980, Electrical Engineering Design Projects

Electrical Engineering Electives 3000-4990

Mechanical Engineering Major Requirements

JC ENGR 4950, Fundamentals of Engineering

JE MATH 3260, Probability and Statistics for Engineering

JM ENGR 1413, Introduction to Engineering Design: CAD

JM ENGR 1414, Introduction to Engineering Design:
Project

JM ENGR 2410, Mechanics of Deformable Bodies

JM ENGR 3210, Energetics for Mechanical Engineers

JM ENGR 3221, Mechanical Design and Machine
Elements

JM ENGR 3250, Materials Science

JM ENGR 3700, Fluid Mechanics

JM ENGR 3710, Principles of Heat Transfer

JM ENGR 3721, Fluid Mechanics Laboratory

JM ENGR 3722, Heat Transfer Laboratory

JM ENGR 4041, Current Topics in Mechanical Engineering
Design

Mechanical Engineering Electives

JM ENGR 4040, Mechanical Engineering Design Project

JM ENGR 4041, Current Topics in Mechanical Engineering
Design

JM ENGR 4110, Mechanical Engineering Design Project

JM ENGR 4120, Design of Thermal Systems

JM ENGR 4170, Dynamic Response of Physical Systems

JM ENGR 4180, Dynamic Response Laboratory

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 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 UMSL/ Washington University Joint Undergraduate Engineering Program. The minor may be awarded only 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 UMSL/ Washington University Joint Undergraduate Engineering Program.

J CHEM E 4430, Environmental Engineering Chemistry
JC ENGR 3520, Environmental Engineering Science (EE, ME majors) **OR**

JC ENGR 4750, Introduction to Urban Planning (CE majors)

JC ENGR 4080, Environmental Engineering Laboratory – Water/Soil **OR**

JC ENGR 4090, Environmental Engineering Laboratory – Air

JC ENGR 4820, Design of Water Quality Control Facilities

JE POLY 4370, Environmental Risk Assessment

JE POLY 4610, 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 hours of engineering design, engineering science, and basic science content. Engineering topics is the sum of engineering science hours and engineering design hours. The following table shows the design hours and engineering science hours for courses in the engineering programs.

Each engineering student must complete a curriculum that contains at least 48 hours of engineering topics semester hours, including all courses: pre-engineering requirements, engineering core requirements, major requirements, and electives. Civil, electrical, and mechanical engineering majors should consult with their advisers to select electives at the 3000 and 4000 level that include sufficient engineering design and engineering science content to produce the required totals. Transfer courses from other institutions do not necessarily have the same engineering science and engineering design content as their equivalents in the UMSL/Washington University Joint Undergraduate Engineering Program. Students who include transfer courses in their curricula should consult with their advisers to be sure that these requirements are met.

Fees

Students register on the UMSL campus and pay UMSL fees plus an engineering fee for both pre-engineering and engineering courses. Limits on enrollments are determined by the availability of resources.

Career Outlook

Engineering is one of the few careers in which the bachelor's degree is a professional degree. Students earning a Bachelor of Science degree in one of the engineering disciplines are well qualified for entry-level engineering positions in a variety of businesses, industries, consulting firms, and government agencies. As society becomes increasingly dependent on technology, the outlook for all engineering disciplines becomes increasingly bright. Engineering careers typically rank at, or very near, the top of virtually any published rating of promising jobs for the 21st Century. Besides tackling challenging technical problems, roughly two-thirds of all engineers will have some level of management responsibility within ten years of receiving their bachelor's degrees. Many practicing engineers will eventually continue their education by pursuing graduate degrees on a part-time basis. Typical areas of graduate study include all advanced technical and scientific fields and management.

UMSL/Washington University Joint Undergraduate Engineering Program

Course Number	Semester Hours	Engineering Design	Engineering Science	Course Number	Semester Hours	Engineering Design	Engineering Science
ENGR 1010	1.0	0.0	0.0	JE ENGR 4350	3.0	1.5	1.5
ENGR 2310	3.0	0.0	3.0	JE ENGR 4710	3.0	1.2	1.8
ENGR 2320	3.0	0.0	3.0	JE ENGR 4670	3.0	1.0	2.0
JC ENGR 1451	3.0	1.0	2.0	JE ENGR 4410	3.0	1.0	2.0
JC ENGR 2160	3.0	0.0	3.0	JE ENGR 4420	3.0	1.0	2.0
JC ENGR 3360	1.0	0.0	1.0	JE ENGR 4820	3.0	1.0	2.0
JC ENGR 3410	3.0	0.5	2.5	JE ENGR 4650	3.0	2.2	0.8
JC ENGR 3420	3.0	2.5	0.5	JE ENGR 4020	3.0	1.5	1.5
JC ENGR 3520	3.0	1.0	2.0	JE ENGR 4600	3.0	1.3	1.7
JC ENGR 3740	3.0	0.0	3.0	JE ENGR 4640	3.0	1.0	2.0
JC ENGR 3760	3.0	0.5	2.5	JE ENGR 4380	3.0	1.0	2.0
JC ENGR 4000	1.0-6.0	Varies	Varies	JE ENGR 4980	3.0	3.0	0.0
JC ENGR 4080	3.0	0.0	2.0	JE MATH 3170	4.0	0.0	0.0
JC ENGR 4090	3.0	0.0	0.0	JE MATH 3260	3.0	0.0	0.0
JC ENGR 4100	3.0	3.0	0.0	JE POLY 3810	3.0	1.5	1.5
JC ENGR 4190	3.0	1.0	2.0	JE POLY 4370	3.0	0.8	2.2
JC ENGR 4200	1.0	0.0	1.0	JE POLY 4610	3.0	0.0	0.0
JC ENGR 4390	3.0	1.0	2.0	JE ENGR 4640	3.0	1.0	2.0
JC ENGR 4600	3.0	3.0	0.0	JM ENGR 1414	2.0	1.5	0.5
JC ENGR 4630	3.0	3.0		JM ENGR 1415	2.0	0.0	2.0
JC ENGR 4640	3.0	1.5	1.5	JM ENGR 2410	3.0	0.5	2.5
JC ENGR 4690	3.0	3.0	0.0	JM ENGR 3200	3.0	0.0	3.0
JC ENGR 4720	3.0	0.0	0.0	JM ENGR 3210	3.0	0.0	3.0
JC ENGR 4730	3.0	1.0	2.0	JM ENGR 3221	4.0	4.0	0.0
JC ENGR 4740	3.0	0.8	2.2	JM ENGR 3250	4.0	0.0	4.0
JC ENGR 4750	3.0	1.5	1.5	JM ENGR 3360	3.0	0.0	3.0
JC ENGR 4760	3.0	3.0	0.0	JM ENGR 3611	3.0	0.0	3.0
JC ENGR 4770	3.0	0.0	0.0	JM ENGR 3700	3.0	0.0	3.0
JC ENGR 1780	3.0	1.0	2.0	JM ENGR 3710	3.0	0.0	3.0
JC ENGR 4820	3.0	3.0	0.0	JM ENGR 3721	1.0	0.0	1.0
JC ENGR 4840	3.0	1.5	1.5	JM ENGR 3722	1.0	0.0	1.0
JC ENGR 4860	3.0	3.0	0.0	JM ENGR 4000	1.0-6.0	Varies	Varies
JC ENGR 4940	3.0	0.0	3.0	JM ENGR 4160	3.0	0.5	2.5
JC ENGR 4990	1.0	0.0	0.0	JM ENGR 4170	4.0	1.0	3.0
J CHEM E 4430	3.0	0.0	2.0	JM ENGR 4190	3.0	0.0	0.0
J CMP SC 1260	3.0	1.0	2.0	JM ENGR 4240	3.0	0.5	2.5
JE COMM 3100	3.0	0.0	0.0	JM ENGR 4250	3.0	2.0	1.0
JE ENGR 2330	3.0	1.0	2.0	JM ENGR 4290	3.0	1.0	2.0
JE ENGR 2600	3.0	1.5	1.5	JM ENGR 4310	3.0	1.0	2.0
JE ENGR 2300	3.0	0.8	2.2	JM ENGR 4500	3.0	1.0	2.0
JE ENGR 2320	3.0	0.8	2.2	JM ENGR 4530	3.0	3.0	0.0
JE ENGR 3300	3.0	1.0	2.0	JM ENGR 4720	3.0	0.0	3.0
JE ENGR 3320	3.0	1.3	1.7	JM ENGR 4740	3.0	1.5	1.5
JE ENGR 3620	3.0	1.0	2.0	JM ENGR 4760	3.0	0.5	2.5
JE ENGR 3510	3.0	1.0	2.0	JM ENGR 4780	3.0	1.5	1.5
JE ENGR 3340	3.0	1.0	2.0	JM ENGR 4810	3.0	0.5	2.5
JE ENGR 3360	3.0	1.0	2.0	JM ENGR 4820	3.0	0.5	2.5
JE ENGR 3370	3.0	1.0	2.0	JM ENGR 4040	4.0	4.0	0.0
JE ENGR 4300	3.0	1.0	2.0	JM ENGR 4041	1.0	1.0	0.0
JE ENGR 4340	3.0	1.0	2.0				

For Further Information

For information about enrolling in this program, please contact the UMSL/Washington University Joint Undergraduate Engineering Program at (314) 516-6800, or the Washington University School of Engineering and Applied Science at (314) 935-6100.

Course Descriptions

Prerequisites may be waived by consent of the joint program faculty.

Engineering

1010 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.

2310 Statics (3)

Prerequisites: MATH 1900 and PHYSICS 2111. 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.

2320 Dynamics (3)

Prerequisite: ENGR 2310. 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.

All courses listed below require admission to candidacy for a degree in the UM-St. Louis/ Washington University Joint Undergraduate Engineering Program. Prerequisites may be waived by consent of the Joint Program faculty. Audits are not permitted.

Chemical Engineering

J CHEM E 4430 Environmental Engineering Chemistry (3)

Prerequisite: CHEM 1121. 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

JC ENGR 1451 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 drawings. This course is required for civil engineering majors.

JC ENGR 2160 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.

JC ENGR 2620 Introduction to Environmental Engineering (3)

Prerequisites: MATH 2000 and CHEM 1121. The objective of this course is to introduce students to the field of environmental engineering. The course will emphasize basic principles of mass and energy conservation which govern physical, chemical and biological processes. Applications include the estimation of contaminant concentrations and the design of environmental controls.

JC ENGR 3350 Structural Engineering Material (3)

Prerequisites: ENGR 2310, JM ENGR 2410. Topics to be covered include: mechanical behavior of materials: static tension, compression and bending, yield criteria, dynamic effects, creep, fatigue; structure of metals: atomic bonding, crystal structure, imperfections, dislocations, iron-carbon alloy system, time-temperature-transformation relations, heat treatment of steel-alloy steels; concrete and compositions.

JC ENGR 3360 Civil Engineering Materials Lab (1)

Testing procedures, testing machines, use of laboratory equipment, analysis of data, and presentation of results. Laboratory tests on static tension, compression, bending, and torsion of metal specimens. Tests on wood. Determination of compressive and tensile strengths of concrete. Design of concrete mixes and verification of strength. Experiments in advanced topics in mechanics of materials.

JC ENGR 3410 Structural Analysis (3)

Prerequisite: JM ENGR 2410. 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.

JC ENGR 3420 Structural Design (3)

Prerequisites: JM ENGR 3250 and JC ENGR 3410. 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.

JC ENGR 3460 Transportation Engineering (3)

Fundamental treatment of the planning, engineering, design, and procedural aspects of multimodal transportation are covered. Intermodal freight and urban transportation planning processes, and overview of environmental, energy, and economic issues are discussed.

JC ENGR 3520 Water and Wastewater Treatment (3)

Prerequisite: JM ENGR 3700 (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 wastewater, 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 wastewater. Design of processes and facilities used for treating drinking water, wastewater, and sludge disposal. Waste minimization and recycling in both industrial and municipal settings.

JC ENGR 3760 Hydraulic Engineering (3)

Prerequisite: JM ENGR 3700. 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.

JC ENGR 4000 Independent Study (1-6)

Prerequisites: Junior standing and consent of faculty adviser. Independent investigation of a civil engineering topic of special interest to a student performed under the direction of a faculty member.

JC ENGR 4080 Environmental Engineering Laboratory - Water/Soil (3)

Prerequisite: J CHEM E 4430. 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.

JC ENGR 4090 Environmental Engineering Laboratory - Air (3)

Prerequisite: J CHEM E 4430. 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.

JC ENGR 4100 Design of Timber Structures (3)

Prerequisites: JC ENGR 3410 and JC ENGR 3420. 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.

JC ENGR 4160 Introduction to Elasticity (3)

Prerequisites: JC ENGR 141. Introduction to elasticity: indicial notation, stress and strain, material laws. Plane stress and plane 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.

JC ENGR 4190 Soil Mechanics (3)

Prerequisites: JM ENGR 2410 and JM ENGR 3700. Basic geology as it relates to index and classification properties of soil. Exploration, sampling, and testing techniques. Soil 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.

JC ENGR 4200 Soil Exploration and Testing (1)

Prerequisite: JC ENGR 4190 (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.

JC ENGR 4220 Pre-Stressed Concrete Design (3)

Prerequisites: Senior status. Analysis and design of prestressed concrete members. Direct design of composite and noncomposite members for flexure. Design of continuous beams. Flexural strength, shear strength, and design of anchorage zone.

JC ENGR 4230 Construction Cost Engineering (3)

The students will examine cost engineering principles. Fundamentals will be reviewed and applied to problems of cost estimating, cost control, business planning and

management science, profitability analysis, project management, and planning and scheduling. The course will conclude with the 3 ½ hour Interim Cost Consultant certification exam administered by the Association for the Advancement of Cost Engineers International. The Interim Level Certification Program allows recent graduates who have at least 4 years experience, in cost management to actively pursue the cost engineering principles certificate. The four years of experience may consist of appropriate college-level academic training (engineering, construction management, architecture, finance, quantity surveying, or other AACE training.

JC ENGR 4250 Professional Engineering Services (3)

Prerequisites: Senior standing. An introduction to the use and integration of professional services for Project Design and Delivery Systems in construction projects will be presented. The relationship between owner and the professional service personnel, architects, engineers, contractors and construction managers will be explored in detail. The role, techniques, procedures, management principles, and professional responsibilities will be presented and discussed. Real projects will be presented to illustrate the various project delivery systems used in design and construction. These points will be illustrated through a semester long team project.

JC ENGR 4370 Matrix Structural Analysis (3)

Prerequisites: JC ENGR 3410. This course will cover analysis of framed structures, planar and 3-D, using beam-column elements and shear walls and floors. Flexibility and stiffness analyses are performed by generating the matrices and carrying through the analyses step by step with a matrix manipulator program. A commercially available program is used to check at least one problem.

JC ENGR 4390 Computational Structural Mechanics (3)

This course is an introduction to analysis and design of structures using finite elements. The topics covered include: elementary theory of elasticity, plate theories and buckling of plate structures, finite element formulation of 2-D elasticity and plate problems. Hands on use of commercial finite element software is emphasized throughout. A major design project is included.

JC ENGR 4440 Geographical Information Systems in Transportation (3)

Prerequisites: Junior standing. A practical, hands-on approach to spatial database design and spatial data analysis with Geographical Information Systems (GIS) as applied to planning and engineering. Course objectives are to examine how digital earth resources data are collected, stored, analyzed, and displayed. The emphasis will be on transportation problems, although additional applications will be discussed.

JC ENGR 4580 Structural Stability (3)

Prerequisites: Senior standing. This course will cover the following topics: classification of instability phenomena; imperfection sensitivity; illustration with mechanical models; systems with finite degrees of freedom; postbuckling analysis using perturbation techniques; stability and nonlinear behavior of struts, plates, and cylindrical shells; nonconservation problems; and numerical methods.

JC ENGR 4600 Transportation Planning (3)

Prerequisites: JC ENGR 2160 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.

JC ENGR 4620 Transportation Planning (3)

Prerequisites: Senior standing. This course will cover the following topics: fundamentals of multimodal transportation planning; urban study components, including study design and organization, origin-destination analysis, traditional traffic model processes of trip generation, distribution and assignment; urban transportation entity analysis (shopping centers, terminals, etc.); state and regional study components, including state and national needs and capital improvement programs, regional funding capabilities and related national transportation policy and legislative acts.

JC ENGR 4630 Design of Steel Structures (3)

Prerequisites: JC ENGR 3410, JC ENGR 3420. Behavior and design of steel frames by "allowable stress" and "maximum strength" based on deterministic and LRFD (Load-resistance factor design) methods. Design of beams, columns, beam-columns, plate girders, connections, multistory frames, and bridge girders. Torsional design of steel structures. Plastic analysis and design of steel structures. Miscellaneous topics in structural steel construction and design.

JC ENGR 4640 Foundation Engineering (3)

Prerequisites: JC ENGR 3420, JC ENGR 4190 and JC ENGR 4200. 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.

JC ENGR 4650 Airport Planning and Construction (3)

Prerequisites: Senior standing. Fundamentals of airport planning location, construction, and legislative and fiscal implementation. Location principles with respect to the region and the site. Analysis of air travel demand models.

Air control systems and navigation principles affecting airport design. Design of the site for runway, taxiway, and terminal location. Pavement and construction principles with respect to design. Current federal policy and fiscal programming for airport planning. Principles of integration with ground transport systems.

JC ENGR 4660 Advanced Design of Concrete Structures (3)

Prerequisites: JM ENGR 3250, JC ENGR 3410, JC ENGR 3420. Flexural behavior and design, strength and deformation of rectangular and nonrectangular sections, shear strength, beam-columns, long columns, slab systems, design of frames, and footings will be covered.

JC ENGR 4720 Legal Aspects of Construction (3)

Prerequisite: Junior standing or permission of instructor. 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.

JC ENGR 4730 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.

JC ENGR 4740 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.

JC ENGR 4741 Construction Project Planning Scheduling (3)

The course will familiarize students with the basic foundation of the construction scheduling process. Included will be a detailed survey of scheduling techniques in an integrated construction planning, scheduling, and control systems. Students will gain an understanding of the critical path method theory, legal implications, and practice. Students will learn to use commercial project management and scheduling software and apply it to a variety of construction problems and projects. (This course will be a combination of two intense weekend meetings, a weekly Internet contact, and two meetings for course introduction and testing.)

JC ENGR 4750 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.

JC ENGR 4760 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.

JC ENGR 4770 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.

JC ENGR 4810 Construction Technology (3)

A comprehensive study of the core construction methods and practices used on the jobsite today. Emphasizes the types of construction materials, technologies, and applications available to the contractor, their use and function on the project, and the importance and interrelationship of these factors to the success of the construction project delivery. (Saturday site visits required)

JC ENGR 4811 Inland Water Transportation and Port Plan (3)

Prerequisite: Senior standing. The study, evaluation, and analysis of site design parameters, system configurations, and policy and management issues of port and marine transportation with special emphasis on the Great Lakes and inland, coastal, and inter-coastal waterways.

JC ENGR 4820 Design of Water Quality Control Facilities (3)

Prerequisite: JC ENGR 3520. 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.

JC ENGR 4840 Probabilistic Methods in Civil Engineering Design (3)

Prerequisite: JC ENGR 3420 (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.

JC ENGR 4850 Bridge Analysis and Design (3)

Prerequisites: JC ENGR 3420. Study of fundamental bridge design philosophy and theory of analysis using AASHTO Specifications. Strong emphasis on practical design aspects of steel, and concrete bridges and associated analytical approaches. Introduction to commercially available design software providing real world solutions to various design challenges. Seismic design and analysis are also included.

JC ENGR 4860 Design of Masonry Structures (3)

Prerequisite: JC ENGR 3420. 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.

JC ENGR 4940 Public Transportation Technology (3)

Prerequisites: JC ENGR 4620. An in-depth study and analysis of conventional and emerging public transportation state-of-the-art systems. Brief review of conventional transportation systems, study of bus-rapid systems, demand responsive bus systems, personal rapid transit, dual-mode, guide-way and automated freeway systems, and high-speed rail TACV systems. Review of current Department of Transportation Administration-Urban Mass Transportation Administration New Systems Research and Demonstration Programs. Students will be responsible for a major project endeavor at conclusion of course.

JC ENGR 4950 Fundamentals of Engineering Review (1)

Prerequisites: Senior Standing. The topics found in most engineer-in-training exams will be reviewed and illustrated using examples. A discussion of the importance of licensing exams and the strategies for taking these exams will be discussed. The main topics for review include: engineering mathematics, basic chemistry, engineering mechanics, engineering economics, thermodynamics, electrical circuits, and material science.

JC ENGR 4990 Senior Civil Engineering Seminar

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

J CMP SC 1002 Introduction to Computing Tools: MATLAB Skills (1)

This course is aimed at the acquisition of MATLAB skills through hands on familiarization and practice. Students practice the array, vector, and mesh grid representations, use programming and plotting, and apply these skills to solve numerical problems and generate reports. (J CMP SC 1002 and CS 1250 can substitute for J CMP SC 1360)

J CMP SC 1260 Introduction to Computing Programming (3)

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

JE ENGR 2300 Introduction to Electrical Networks (3)

Prerequisites: Physics 2112 and MATH 2020 (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.

JE ENGR 2320 Introduction to Electronic Circuits (3)

Prerequisite: JE ENGR 2300. 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.

JE ENGR 2330 Electrical and Electronic Circuits Laboratory (3)

Prerequisite: JE ENGR 2300. Lectures and laboratory exercises related to sophomore topics in introductory networks and basic electronics.

JE ENGR 2600 Introduction to Digital Logic and Computer Design (3)

Prerequisite: J CMP SC 1260. 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.

JE ENGR 3300 Engineering Electro Magnetic Principles (3)

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.

JE ENGR 3310 Electronics Laboratory (3)

Prerequisites: JE ENGR 2300, JE ENGR 2330. Laboratory exercises for juniors covering topics in computer-aided measurements, computer simulation, and electronic circuits.

JE ENGR 3320 Power, Energy, and Polyphase Circuits (3)

Prerequisite: JE ENGR 2300. 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.

JE ENGR 3360 Principles of Electronic Devices (3)

Prerequisite: Physics 2112. 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.

JE ENGR 3370 Electronic Devices and Circuits (3)

Prerequisite: JE ENGR 2320. 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.

JE ENGR 3510 Signals and Systems (3)

Prerequisites: JE ENGR 2300 and JE MATH 3170. 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.

JE ENGR 3620 Computer Architecture (3)

Prerequisite: JE ENGR 2600. 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.

JE ENGR 4050 Reliability and Quality Control (3)

Prerequisites: JM ENGR 3260 or MATH 1320. An integrated analysis of reliability and quality control function in manufacturing. Statistical process control, acceptance sampling, process capability analysis, reliability prediction, design, testing, failure analysis and prevention, maintainability, availability, and safety are discussed and related. Qualitative and quantitative aspects of statistical quality control and reliability are introduced in the context of manufacturing.

JE ENGR 4090 Patent Law for Electrical Engineers (3)

Prerequisites: Senior Standing. Analysis of the practical and legal steps with which an electrical engineer should be familiar regarding patent protection for electrical and electronic inventions. The course focuses primarily on the patent protection provided under the U.S. patent laws. Recent U.S. patents relating to electrical and electronic inventions are examined to better understand patents and the protection provided by patents. Copyrights, trademarks, trade secret, unfair competition and mask work protections are also discussed. The protection and marketing of ideas is also considered. The course provides a pragmatic review of intellectual property from an electrical engineering perspective to prepare for issues of commonly faced in industry and business today.

JE ENGR 4300 Engineering Electromagnetics Applications (3)

Prerequisite: JE ENGR 3300. 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.

JE ENGR 4330 Radio Frequency and Microwave Technology for Wireless Systems (3)

Prerequisites: JE ENGR 3300. Focus is on the components and associated techniques employed to implement analog and digital radio frequency (RF) and microwave (MW) transceivers for wireless applications, including: cell phones; pagers; wireless local area networks; global positioning satellite based devices; and RF identification systems. A brief overview of system-level considerations is provided, including modulation and detection approaches for analog and digital systems; multiple access techniques filter design; active component modeling; matching and biasing networks; amplifier design; and mixer design.

JE ENGR 4340 Solid State Power Circuits & Applications (3)

Prerequisites: JE ENGR 2320, JE ENGR 3510. Study of the strategies and applications of power control using solid-state semiconductor devices. Survey of generic power electronic converters. Applications to power supplies, motor drives, and consumer electronics. Introduction to power diodes, thyristors, and MOSFETs.

JE ENGR 4350 Electrical Energy Laboratory (3)

Prerequisite: JE ENGR 2330. 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.

JE ENGR 4410 Control Systems (3)

Prerequisites: JE MATH 3170, JE ENGR 2300 (same as JM ENGR 4310) Introduction to automatic control concepts. Block diagram representation of single and multiloop 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.

JE ENGR 4420 Digital Control Systems (3)

Prerequisite: JM ENGR 4310. The control of physical systems with a digital computer, microprocessor, or special-purpose digital hardware is becoming very common. Course continues JM ENGR 4310 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.

JE ENGR 4520 Power Systems Analysis (3)

Prerequisites: JE ENGR 3320. Introduction to the modeling and elements of power systems; machines, lines, and loads; load flow methods and applications; short circuit analysis using symmetrical components on symmetrical and unsymmetrical faults; methods of economic operation of power systems and contingency; state estimators, stability, and introduction of the independent system operator.

JE ENGR 4600 Switching Theory (3)

Prerequisite: JE ENGR 2600. 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.

JE ENGR 4630 Digital Integrated Circuit Design and Architecture (3)

Prerequisite: JE ENGR 2320 and JE ENGR 3620. Brief review of device characteristics important to digital circuit operation, followed by detailed evaluation of steady-state and transient behavior of logic circuits. Implications of and design techniques for very large-scale integrated circuits including architecture, timing, and interconnection. Students must complete detailed design and layout of a digital circuit. Major emphasis on MOS digital circuits with some comparisons to other technologies.

JE ENGR 4640 Digital Systems Engineering (3)

Prerequisite: JE ENGR 2320. Design and characterization of digital circuits, reliable and predictable interconnection of digital devices, and information transfer over busses and other connections. Topics include: Review of MOSFET operation; CMOS logic gate electrical characteristic; System and single-point noise margin and noise budgets; Figures of merit for noise-margin and poser-delay product, and tradeoff between noise margin and propagation delay; Transmission-line driving including reflection,

termination, non-zero transition time; lumped and distributed capacitance loads, non-linear terminations, and applicable conditions for lumped approximations; Coupled transmission lines, forward and backward crosstalk, short line approximations, ground bounce, and simultaneous switching noise; Timing, clocking, and clock distribution for digital circuits; Prediction of metastability error rates and design for acceptable probability of failure. Examples and design exercises using systems and interconnections selected from current Computer Engineering practice such as RAMBUS, PCI bus, GTL, LVDS, and others.

JE ENGR 4650 Digital Systems Laboratory (3)

Prerequisites: JE ENGR 2600, JE ENGR 2320. Procedure 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.

JE ENGR 4710 Communications Theory and Systems (3)

Prerequisites: JE ENGR 3510 and JE MATH 3260. 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.

JE ENGR 4720 Internet Communications (3)

Prerequisites: Senior Standing. This course will introduce and cover the architecture, protocols, security, and quality of service (QoS) of Internet Communications. Starting with the design principles and architecture of the Internet, communication applications such as Voice over IP (VoIP), video conferencing, and presence and instant messaging will be covered. Protocols developed by the Internet Engineering Task Force (IETF) including IP, TCP, UDP, DNS, SIP, XMPP, and ENUM will be studied. Latest areas of research including the Service Oriented Architecture (SOA) and peer-to-peer (P2P) architectures for Internet Communications will be covered.

JE ENGR 4820 Digital Signal Processing (3)

Prerequisite: JE ENGR 3510. 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.

JE ENGR 4880 Signals and Systems Laboratory – Lecture/Lab (3)

Prerequisites: JE ENGR 3510. A laboratory course designed to complement the traditional EE course offerings in signal processing, communication theory, and automatic control. Signals and systems fundamentals: continuous-time and discrete-time linear time-invariant systems, impulse and step response, frequency response, A/D and D/A conversion. Digital signal processing: FIR and IIR digital filter design, implementation and application of the Fast Fourier Transform. Communication theory: baseband, digital communication, amplitude modulation, frequency modulation, bandpass digital communication. Automatic control: system modeling, feedback control systems, closed-loop transient and frequency response. Laboratory experiments involve analog and digital electronics, and mechanical systems. Computer workstations and modern computational software used extensively for system simulation, real-time signal processing, and discrete-time automatic control.

JE ENGR 4980 Electrical Engineering Design Projects (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.

Engineering Communications

JE COMM 3100 Engineering Communications (3)

Prerequisites: English 1100 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

JE MATH 3170 Engineering Mathematics (4)

Prerequisite: MATH 2020. 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.

JE MATH 3260 Probability and Statistics for Engineering (3)

Prerequisite: MATH 2000. 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.

Mechanical Engineering

JM ENGR 1413 Introduction to Engineering Design: CAD (2)

An introduction to engineering design in the context of mechanical engineering. Students learn the fundamentals of spatial reasoning and graphical representation. Freehand sketching, including pictorial and orthographic views, are applied to the design process. Computer modeling techniques provide accuracy, analysis, and visualization tools necessary for the design of devices and machines. Topics in detailing design for production, including fasteners, dimensioning, tolerancing, and creation of part and assembly drawings are also included.

JM ENGR 1414 Introduction to Engineering Design: Project (2)

An introduction to engineering design in the context of mechanical engineering. Students first complete a series of experiments that introduce physical phenomena related to mechanical engineering. Understanding is achieved by designing and building simple devices and machines. The course proceeds to a design contest in which the 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. The course is open to all and is appropriate for anyone interested in mechanical devices, design, and the design process.

JM ENGR 2410 Mechanics of Deformable Bodies (3)

Prerequisites: MATH 1900 and ENGR 2310. 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.

JM ENGR 3200 Thermodynamics (3)

Prerequisites: MATH 1900, CHEM 1111 and Physics 2111. Classical thermodynamics, thermodynamic properties, work and heat, first and second laws. Entropy, irreversibility, availability. Application to engineering systems.

JM ENGR 3221 Mechanical Design and Machine Elements (4)

Prerequisites: JM ENGR 1414, JM ENGR 1415, JM ENGR 2410, JE MATH 3170. 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. Includes an introduction to several classes of machine elements such as bearings, gears, belts, brakes, and springs. Underlying analytical model of the machine elements are presented along with guidelines about designing and choosing such elements for practical applications. A case study from industry will emphasize how the steps of the design process were done as well as the rationale for choosing particular machine elements.

JM ENGR 3250 Materials Science for JM ENGR (4)

Prerequisite: CHEM 1111. 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.

JM ENGR 3360 Material Science for JC ENGR (3)

Prerequisite: CHEM 1111. Same as JM ENGR 3250 but without the laboratory. 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.

JM ENGR 3611 Materials Engineering (3)

Prerequisite: JM ENGR 3250. 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.

JM ENGR 3630 Nanotechnology Concepts and Applications (3)

The aim of this course is to introduce to students the general meaning, terminology and ideas behind nanotechnology and its potential application in various industries. The topics covered will include nanoparticles (properties, synthesis and applications, carbon nanotubes) properties, synthesis and applications, ordered and disordered nanostructured material and their applications, quantum wells, wires and dots, catalysis and self assembly, polymers and biological materials, nanomanufacturing and functional nano-devices, health effects and nanotoxicity. This course will include several laboratory demonstrations.

JM ENGR 3700 Fluid Mechanics (3)

Prerequisites: JE MATH 3170 and ENGR 2320. 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.

JM ENGR 3710 Principles of Heat Transfer (3)

Prerequisites: JM ENGR 3200, JM ENGR 3700 and JE MATH 3170. 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 e-NTU analysis. Boiling and condensation heat transfer. Radiation between blackbody and real surfaces. Radiation network analysis.

JM ENGR 3721 Fluid Mechanics Laboratory (1)

Prerequisite: JM ENGR 3700. Physical laboratory exercises focusing on fluid properties and flow phenomena covered in JM ENGR 3700. Calibration and use of a variety of equipment; acquisition, processing, and analysis of data by manual as well as automated methods.

JM ENGR 3722 Heat Transfer Laboratory (1)

Prerequisites: JM ENGR 3721 and JM ENGR 3710. Physical laboratory exercises, including some numerical simulations and computational exercises, focusing on heat-transfer phenomena covered in JM ENGR 3710. 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.

JM ENGR 3750 Fluid Control and Power Systems Theory and Practice (3)

Prerequisites: JM ENGR 3700. Topics to covered include: design of hydraulic and pneumatic control and power systems using advanced concepts and analytical tools; analysis of fluid flow through small orifices and between parallel and inclined planes; theory of spool and flapper

valves; physical configuration of practical components: pumps, motors, fluid lines and valves, accumulators and storage devices; integration of components into practical systems, development of realistic performance diagrams using MATLAB Symulink; application of performance diagrams in design and analysis of fluid power systems.

JM ENGR 4000 Independent Study (1-6)

Prerequisites: Junior standing and consent of the faculty adviser. Independent investigation of a mechanical engineering topic of special interest to a student performed under the direction of a faculty member.

JM ENGR 4041 Current Topics in Mechanical Engineering Design (1)

Prerequisites: Senior Standing. Case studies of engineering failures, class discussion and short written papers are used to illustrate and stress the importance of engineering teamwork, ethics, and professional standards within the mechanical engineering discipline. Working in teams, students develop and present a case study on a topic of their choice. Guest lecturers introduce contemporary topics such as product liability, environmental regulations, green design, appropriate technologies, and concurrent engineering.

JM ENGR 4110 Mechanical Engineering Design Project (4)

Prerequisite: JM ENGR 3221. Feasibility study of an open-ended, original design or a creative redesign of a mechanical component or system requiring the application of engineering science principles. Feasibility is subject to economic, safety, legal, environmental, ethical, aesthetic, and other constraints in a competitive manufacturing environment. Project teams perform the detailed design and optimization of the concept developed in the feasibility study. Presentations and reports with manufacturing drawings and prototypes are completed by each team.

JM ENGR 4120 Design of Thermal Systems (3)

Prerequisites: Senior Standing. Analysis and design of advanced thermo-fluid systems. Student teams participate in the design process which could involve research, design formulations, codes, standards, engineering economics, a design project report, and formal presentations. Topics include: thermal-fluid systems and components, such as power, heating, and refrigeration systems, pumps, fans, compressors, combustors, turbines, nozzles, coils, heat exchangers and piping.

JM ENGR 4170 Dynamic Response of Physical Systems (2)

Prerequisites: ENGR 2320 and JE MATH 3170; JM ENGR 4170 and JM ENGR 4180 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.

JM ENGR 4180 Dynamic Response Laboratory (2)
 Prerequisite: JM ENGR 4170 and JM ENGR 4180 must be taken during the same semester. Laboratory problems focusing on materials covered in JM ENGR 4170.

JM ENGR 4240 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.

JM ENGR 4250 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.

JM ENGR 4310 Control Systems I (3)
 Prerequisite: JE MATH 3170, JE ENGR 2300 (same as JE ENGR 4410). 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.

JM ENGR 4440 Solar Energy (3)
 Prerequisites: JM ENGR 3200, JM ENGR 3700, and JM ENGR 3710. This course will cover the following topics: extraterrestrial solar radiation; solar radiation on the earth's surface; weather bureau data; review of selected topics in heat transfer; methods of solar energy collection including flat panel and concentrating collectors; solar energy storage; transient and long-term solar system performance.

JM ENGR 4510 Computer Controlled Manufacturing (3)
 Prerequisites: J CMP SC 1260, JM ENGR 4320. Practical applications of mini- and microcomputer based systems for production control, numerical control and robotics. Processors, hardware interfacing, I/O configuration, D/A and A/D conversion. Real time process control. Flexible manufacturing. CIMLab assignments.

JM ENGR 4530 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.

JM ENGR 4800 Building Environmental Systems: Parameters (3)
 Sustainable design of building lighting and HVAC systems considering performance, life-cycle cost and downstream environmental impact. Criteria, codes and standards for comfort, air quality, noise/vibration and illumination. Life cycle and other investment methods to integrate energy consumption/conservation, utility rates, initial cost, system/component longevity, maintenance cost and building productivity. Direct and secondary contributions to acid rain, global warming and ozone depletion.

JM ENGR 4810 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.

JM ENGR 4820 Air-Conditioning Systems and Equipment II (3)
 Prerequisite: Senior standing. 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.

JM ENGR 4900 Engineering Project Management (3)
 Prerequisites: Senior Standing. Basic fundamentals and advanced concepts of engineering project management applicable to projects and programs, both large and small. Project management skills, techniques, systems, software and application of management science principles will be covered and related to research, engineering, architectural, and construction projects from initial evaluations through approval, design, procurement, construction and startup

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