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About

Some graduate programs allow students to complete 300-level courses for graduate credit. Please see the undergraduate course descriptions for these course descriptions.
Administration & Supervision

A&S 465
ADMINISTRATIVE PLANNING

A&S 469
EDUCATIONAL FINANCE

A&S 487
FOUNDATIONS OF STUDENT AFFAIRS
The course examines historical and philosophical elements relative to the role of student affairs in higher education as well as the impact of changing demographics on current trends pertinent to the management of student affairs. The course also provides students with theoretical and practical knowledge about organization structure, services, and faculty/staff/administrative functions in student affairs. (prerequisites HSC 451 and HSC 452)

A&S 488
KNOWLEDGE AND SKILLS IN STUDENT AFFAIRS
This course will introduce students to theories and models of organizational behavior and consultation specific to student affairs. The course will also explore theories, models and practices of leadership and organizational management and methods of and approaches to organizational change, decision making, and conflict resolution. Theories and methods of personnel selection, supervision, and performance evaluation as conducted in higher education will be included. (prerequisites HSC 451, HSC 452, and A&S 487)

A&S 489
CONTEXTUAL DIMENSIONS OF STUDENT AFFAIRS
This course examines the impact of institutional mission and state and national policies on access, retention and graduation rates of traditional and nontraditional student populations. The course provides an overview of historical and contemporary theories and practices (in student affairs) which impact strategic planning and assessment for student success. (prerequisite A&S 488)

A&S 490
PROGRAM DEVELOPMENT IN STUDENT AFFAIRS
This course will explore models for designing, managing, and evaluating student affairs programs, including the use of technological applications. Students will become familiar with models and methodologies of program development and implementation in higher education and will understand how to use professional standards and other resources for program development. (prerequisites A&S 489)

A&S 491
ADMINISTRATIVE THEORY AND BEHAVIOR
This course concerns theoretical concepts and empirical research relating to administrative behavior in organizations with special reference to educational organizations. Concepts are examined within the typical decisional framework of supervisors, chief school business officers, principles, and superintendents, and similar positions in the helping professions. Assignments are individualized.

A&S 492
THE PRINCIPALSHIP
An intensive study of factors involved in the administration and supervision of a school. Topics considered include the administration and supervision of student personnel, faculty, the instructional program, financial and physical resources, community relations and other basic needs in administering and supervising schools.

A&S 493
DATA DRIVEN DECISION MAKING
This course provides future administrators with the tools they need to critically examine demographic,
financial, personnel and testing data and to use the insights gained in making well informed administrative
decisions.

A&S 494
SCHOOL FINANCE
Major consideration will be given to problems relating to the preparing of a school budget, procuring revenue,
financial accounting, capital outlays, insurance on property, taking of inventory, and the social and political
implications of how schools are financed.

A&S 495
SCHOOL LAW
Authority, powers and liability of school personnel; rights and status of students; character of districts and
school board control of curriculum, school property, finances. Special emphasis on recent state and federal
court decisions as they affect Illinois and neighboring states.

A&S 496
HOME, SCHOOL, COMMUNITY RELATIONS
This course will examine the formation of educational partnerships within the home, school, community for
the general purpose of school improvement and more specifically to affect the improvement of student
achievement within the context of school reform. Students will have the opportunity to critically examine
their individual and collective roles as administrators and educators in the school reform movement and be
reflective regarding actions taken and planned. Among the issues to be discussed and integrated into the
administrative role are how groups form, school leadership, group relations, power relationships,
communications/public relations, collaborations, shared decision making, needs identification, resource
identification and individual and collective action.

A&S 498
PRINCIPLES AND PRACTICES OF SUPERVISION
Supervision viewed from a human resources perspective, dealing with motivation, responsibility and
successes at work as a means to intrinsic satisfaction.

A&S 499
CLINICAL SUPERVISION
Develops competencies in a system of person-to-person supervision that will give supervisors reasonable
hope of accomplishing significant improvements in the personnel performance.

A&S 570
HISTORICAL, PHILOSOPHICAL AND THEOLOGICAL FOUNDATIONS OF CATHOLIC SCHOOL LEADERSHIP
A survey of the history of Catholic K-12 education in the United States and the foundational documents of
Catholic Education. Students will examine the history and philosophical/theological foundation of Catholic
Schools in the United States and will be asked to reflect on the nature and mission of Catholic education in the
multicultural, multiethnic milieu of Twenty-first Century America.

A&S 571
SPIRITUAL AND ADMINISTRATIVE LEADERSHIP IN CATHOLIC SCHOOLS
Students will be asked to conceptualize leadership from the Transformational and Servant Leadership
perspectives. Using these principles, students will examine the spirituality in Catholic School leadership, and
its implications for them in their role as ministers and coordinators of ministries in the school setting.
Students will then examine the unique administrative and managerial factors that impact Catholic schools
from a leadership framework that is imbued with the spirituality of Servant Leadership.

A&S 586
ADMINISTRATIVE USES OF TECHNOLOGY IN EDUCATIONAL SETTINGS
Students will develop and refine skills in word processing, record keeping, presentation software, budget
management and educational management. They will also discuss the role of technology for classroom
instruction, the expansion of a school's research capacity through technology and develop a framework for
the evaluation of these uses of technology. (Open to both Masters and Doctoral students)

A&S 590
ORGANIZATIONAL DEVELOPMENT
A development approach used in combining theory, research, and applications for improving interpersonal
effectiveness and to develop problem-solving capacity of the organization. The course is about change theory,
people in organizations and the achievement of individual and organizational goals.
A&S 591
RESEARCH SEMINAR IN EDUCATIONAL LEADERSHIP
Research seminar in educational leadership

A&S 593
PRACTICUM IN EDUCATIONAL LEADERSHIP (PREREQUISITE(S): CONSENT OF FACULTY ADVISOR)
The practicum provides opportunities for advanced students in administration and supervision to participate in and complete a research project in selected systems on a full-time or part-time basis. The experiences are intended to provide, under professional direction and supervision for (1) study for major factions, policies, and problems for administration and supervision, and (2) intensive study of certain critical administrative and supervisory practices. PREREQUISITE(S): Advanced standing in administration and supervision and permission of faculty advisor.

A&S 594
INTERNERNSHIP IN EDUCATIONAL LEADERSHIP (PREREQUISITE(S): CONSENT OF FACULTY ADVISOR)
The internship provides supervised experiences in selected organizations on a full-time or part-time basis. The student intern is cooperatively assigned to an organization under the immediate supervision of organizational personnel. The experiences provided are designed to enrich the student's theoretical background with practical opportunities of participating in (1) overall contact with personnel and with the major functions and problems of certain critical administrative and/or supervisory activities, and (2) a detailed study and analysis of a particular administrative and/or supervisory function or activity. PREREQUISITE(S): Advanced standing in administration and supervision and permission of faculty advisor.

A&S 595
WORKSHOP IN EDUCATIONAL LEADERSHIP (PREREQUISITE(S): CONSENT OF INSTRUCTOR)
Topics of particular interest and concern to administrators and supervisors will be presented in a high-involvement seminar format. Primary reliance will be on written materials; however, audio-visual and role-playing mechanisms may also be used. Participation in workshops is limited to advance students of administration and supervision. PREREQUISITE(S): Consent of instructor.

A&S 596
HUMAN RESOURCE MANAGEMENT
Theory, practice and relevant research in modern personnel administration. Recruitment, staff-development, interviewing, collective bargaining, conflict resolution and employee evaluation are emphasized. Human resource administration, induction programs, and in-service opportunities are touched upon.

A&S 597
POLITICS OF EDUCATION
Policy development in education as a political process; community power, state and national politics in educational decision-making and the role of leadership and pressure groups in the shaping of educational policy at local, state and national levels.

A&S 598
INDEPENDENT STUDY IN EDUCATIONAL LEADERSHIP (PREREQUISITE(S): PREMISSION OF INSTRUCTOR, CHAIR & ASSOC DEAN)
PREREQUISITE(S): Permission of instructor, program chair and associate dean.

A&S 599
THESIS SEMINAR IN EDUCATIONAL LEADERSHIP (PREREQUISITE(S): SCG 410 & APPROVED THESIS PROPOSAL)
A student writing a thesis registers for this course for four quarter hours of credit. When the thesis research and the writing of the thesis itself are prolonged beyond the usual time, the program advisor may require the student to register for additional credit. PREREQUISITE(S): SCG 410 and approved thesis proposal.

A&S 600
REGISTERED STUDENT IN GOOD STANDING
(0 credit) This registration is required of all students who are not enrolled in a course but are completing course requirements and/or research. It provides access to University facilities. $50 per quarter.

A&S 606
REVIEW OF LITERATURE
This paper will give students the opportunity to develop and demonstrate written competence in a subfield of their disciplines and to enhance life-long learning. Specifically, they will broaden their knowledge base and inform themselves about a topic, issue, theory, etc., reviewing and synthesizing existing literature. To do so,
students will need a variety of bibliographic skills including searching databases. In other words, student will need to be able to ask and answer such question as "What is know about? What are major issues and themes?"

A&S 607
INTEGRATIVE PAPER
Students will observe and/or participate in the reciprocal interaction of theory and practice, by investigating actual practice in the field as it relates to theory. This might take the form of investigating how a particular theory is applied in the field, developing a practical application of a theory, or, conversely, developing/refining a theory based on investigations made in the field. In other words, as graduates encounter new theories and practices they will need to be able to investigate and evaluate them, asking and answering questions about "how theories work."

A&S 608
CAPSTONE IN EDUCATIONAL LEADERSHIP
Students who have completed the majority of the program will engage in an analysis of an urban school. Students will be given demographic, financial and testing data; a narrative of the school's history and recent past; photographs of the setting, and other pertinent data and artifacts. Using these artifacts, students will be asked to design their first year agenda as the chief administrator in the building. Using the ISLLC standards as a guideline, students will create a portfolio that clearly outlines, schedules, professional development plans, budgets, enrollment projections, and so forth.

A&S 640
LEGAL ASPECTS OF SPECIAL EDUCATION FOR CLASSROOM TEACHERS
Legal aspects of special education for classroom teachers

A&S 645
THE ADMINISTRATION AND OPERATION OF SPECIAL EDUCATION
The administration and operation of special education

A&S 694
SCHOOL FINANCE
Major consideration will be given to problems relating to the preparation of a school budget, procuring revenue, financial accounting, capital outlays, insurance on property, taking of inventory, and the social, political, and ethical implications of how schools are financed.

A&S 695
SCHOOL LAW
Authority, powers and liability of school personnel; rights and status of students; character of districts and school board control of curriculum, school property, finances. Special emphasis on recent state and federal court decisions as they affect Illinois and neighboring states.

A&S 700
REGISTERED DOCTORAL STUDENT IN GOOD STANDING
Non-credit. This registration is required of all doctoral students who are not enrolled in a doctoral course, but are completing course requirements and/or dissertation research. It provides access to University facilities.

A&S 706
CANDIDACY PAPER
Non-Credit. This registration indicates that a student has successfully completed the candidacy paper as specified in the Doctoral Student Handbook.

A&S 801
LEADERSHIP: THEORY AND PRACTICE
This course examines leadership theories from various social, psychological and philosophical perspectives both historical and contemporary. The student will also be called upon to reflect upon contemporary practice in K-16 educational leadership settings and evaluate the efficacy of the theoretical frameworks in light of practice.

A&S 803
SCHOOL PROGRAMS, PLANT AND HUMAN RESOURCES
The development of school programs, based on current research and school laws and regulations, will be explored. The focus will be on the core curriculum, Education and Secondary Education Act (ESEA), State
Chapter I, Bilingual and Special Education mandates and opportunities as well as on other discretionary school programs. Responsibilities in relation to plant operation and management, staffing formulas for all staff, developing job descriptions, recruitment, and staff selection and evaluation are included.

A&S 811
ASSESSMENT AND ACCOUNTABILITY
Students will focus on defining responsibilities and selecting those processes and instruments, qualitative as well as quantitative, that best assess staff performance and provide direction for elevating student achievement.

A&S 823
COMMUNITY AND CONSENSUS BUILDING FOR SCHOOL IMPROVEMENT
Students will examine inclusive models for consensus building among school/community members that engage membership in processes and decision making through data collection, self-analysis, mission/vision development, goal setting and program planning, implementation and evaluation that leads to school and community improvement. Attention will be given to establishing linkages with local municipal, state, and federal resources, business and industrial resources, community services, and other community resources.

A&S 833
DECISION MAKING AND PROBLEM SOLVING: EFFECTIVE PRACTICES FOR SCHOOLS
Students will examine stages and models of decision making and their appropriate use in an educational context that lead to effective problem solving through collaboration, group dialogue and negotiations, mediation, and other intervention strategies for resolving diverse needs and conflicts. Students will work collaboratively to develop processes and strategies that can be used to resolve conflicts and reduce tensions, through group processes and communications techniques for improving the quality of decision making and professional relationships with school staff, central office administrators and school board members.

A&S 843
THE POLITICS OF SCHOOLING
Students will engage in analyzing educational policy and the political processes related to problem identification, problem solving, decision making, the underlying political processes and their impact on the school/community, students, parents, educators, staff, and community members. The role of such entities as, school boards, unions, professional associations, businesses, university preparation programs, book and test publishers, and local, state, and national policy makers in the education political arena will be analyzed. Attention will be given to the means by which support for change is developed with special emphasis on collaborative dialogue and teamwork for political action. Strategies for coalition building, and individual and collective action will be informed by the use of theory from applied behavioral science and political science.

A&S 849
SUPERVISED DISSERTATION PROPOSAL DEVELOPMENT
Students register for this course during the quarter in which they defend their dissertation proposals.
PREREQUISITE(S): Permission of dissertation chair.

A&S 853
CURRENT TRENDS IN BUDGETING, FINANCE AND SCHOOL LAW
Current Trends in Budgeting, Finance and School Law. Financial decisions undergird instructional programs and administrative decision making. Relating these to available money and funding, setting priorities and maximizing the impact on student achievement will be studied. The duties and liabilities of school administrators as determined by federal rules and regulations, state school codes, the politics of boards of education, and case law will be examined.

A&S 859
INDEPENDENT DISSERTATION RESEARCH: EDUCATIONAL LEADERSHIP
Students register for this course in the quarter after they successfully defend their dissertation proposals.
PREREQUISITE(S): Permission of dissertation chair.

A&S 863
SCHOOL LAW FOR SUPERINTENDENTS
School Law For Superintendents

A&S 873
CURRENT TRENDS IN BUDGETING AND FINANCE
This course focuses on the priorities of school funding. Financial decisions undergird instructional programs
and administrative decision making. Relating these to available money and funding, setting priorities and maximizing the impact on student achievement will be studied.

A&S 883
SCHOOL LAW
This course examines the current legal requirements of schools and how changes impact schools. Administrators make decisions that respond to many realities, including the rules and regulations at the local, state, and national levels. The administrator works within a constantly changing system. The duties and liabilities of school administrators as determined by federal rules and regulations, state school codes, the policies of boards of education, and case law will be examined.

A&S 894
INTERNSHIP IN EDUCATIONAL LEADERSHIP
(4/8 qh) The internship provides supervised experiences in selected organizations on a full-time or part-time basis. The student intern is cooperatively assigned to an organization under the immediate supervision of organizational personnel. The experiences provided are designed to enrich the student's theoretical background with practical opportunities of participating in (1) overall contact with personnel and with the major functions and problems of certain critical administrative and/or supervisory activities, and (2) a detailed study and analysis of a particular administrative and/or supervisory function or activity. PREREQUISITE(S): Advanced standing in administration and supervision and permission of faculty advisor.

A&S 899
SUPERINTENDENT INTERNSHIP (PREREQUISITE(S): ADVANCED STANDING)
This course is intended for those seeking the Illinois State Board of Education (ISBE) Superintendent Endorsement. The experiences provided are designed to enrich the students' theoretical background with practical opportunities to participate in major functions and critical duties at the district, regional and/or central office level. The student will be cooperatively assigned to site(s) and be supervised by the on-site superintendent and a DePaul faculty member. PREREQUISITE(S): Advanced standing in the educational leadership program, possession of an ISBE Administrative Endorsement (type 75 certificate), and permission of faculty advisor.

Accountancy

Graduate Course Descriptions

Accountancy

ACC 500
FINANCIAL ACCOUNTING (PREREQ: GRADUATE STANDING)
This introduction to financial accounting provides both a theoretical foundation and an opportunity to apply accounting logic in increasingly complex situations. The accounting model and information processing cycle are developed. The content of the income statement, balance sheet, and statement of cash flows are studied in detail and analyzed. PREREQUISITE(S): Graduate Standing

ACC 502
ADVANCED MANAGEMENT ACCOUNTING (PREREQ: ACC 542 or ACC 555)
Interpretation, analysis and use by management of internal accounting information. Topics include cost management, activity-based costing, inventory management (including just-in-time), cost allocation, performance measurement, analysis and control of non-manufacturing costs, budgeting and financial planning, and capital budgeting. Students are familiarized with quantitative models and approaches used in management accounting. Computers will be used for problem-solving. (This course may not be taken by M.S.A. students) PREREQUISITE(S): ACC 542 or ACC 555

ACC 503
ACCOUNTING INFORMATION SYSTEMS AND AUDITING (PREREQ: ACC 500)
Accounting systems design and the audit process, and how they interact to aid management in controlling
Accounting systems design and the audit process, and how they interact to aid management in controlling business operations. This course will enable the student to interface with accounting systems, and to participate in their design and audit. Comparisons and contrasts between internal and external auditors are discussed at appropriate points. (This course may not be taken by M.S.A. students) PREREQUISITE(S): ACC 500.

ACC 533
CORPORATE PLANNING (PREREQ: ACC 542 OR EQUIVALENT)
This course investigates the conceptual framework for and the development of integrated corporate planning and control in business enterprises and not-for-profit organizations. Consideration will be given to long-range strategic planning, annual budgets, product and project planning. The course also conveys an understanding of the human elements and organizational constraints that may affect the corporate planning function. Students will be exposed to the use of quantitative techniques and microcomputers as planning tools. PREREQUISITE(S): ACC 500.

ACC 535
ACCOUNTING SYSTEMS (CROSS-LISTED AS ACC 610) (PREREQ: ACC 555 OR EQUIVALENT))
Today's business person requires a fundamental knowledge of computer-based information systems and their role in accounting functions and financial decision-making. This course will enable the student to interface with accounting systems, and to participate in their design and audit. It will focus on the nature and flows of accounting information in organizations, security and internal controls and the use of information technology in accounting information systems and decision-making. PREREQUISITE(S): ACC 555 or equivalent.

ACC 541
FINANCIAL ACCOUNTING THEORY & PRACTICE I (PREREQ: ACC 500 OR EQUIVALENT)
Intermediate theory and preparation of financial statements; review of accounting concepts and development of accounting models; methods and problems in valuation and reporting; with emphasis on current assets and liabilities, property, plant and equipment, and intangibles, review of relevant authoritative literature. PREREQUISITE: ACC 500 or equivalent.

ACC 542
COST AND MANAGERIAL ACCOUNTING I (PREREQ: MIS 555 AND ACC 500 OR EQUIVALENT)
Introduction to cost and managerial concepts and techniques. Topics include cost accumulation (job, process, standard costing, and activity-based costing), cost behavior, breakeven analysis, budgeting, contribution approach to income measurement, joint and by-product costing, cost allocation methods, and their relevance for decision-making. Selected spreadsheet applications will be introduced. PREREQUISITE: MIS 555 and ACC 500 or equivalent.

ACC 543
FINANCIAL ACCOUNTING THEORY & PRACTICE II (PREREQ: ACC 541)
Continuation of intermediate theory and financial statement preparation with emphasis on the components of stockholder's equity; special problems such as earnings per share, accounting changes, income taxes, derivatives, and statement of cash flows; review of relevant authoritative literature and interpretation of financial statements. PREREQUISITE(S): ACC 541. This is a M.S.A. course.

ACC 544
COST AND MANAGERIAL ACCOUNTING II (PREREQ: ACC 542 OR EQUIVALENT)
This course presents topics in cost and managerial accounting. Topics include cost management techniques, activity-based costing, budgeting, responsibility accounting, decentralization and transfer pricing, quantitative decision models, operations management and inventory management (just-in-time). Computers will be used for problem-solving. PREREQUISITE(S): ACC 542 or equivalent. NOTE: This is a M.S.A. course.

ACC 545
ADVANCED TOPICS IN ACCOUNTING THEORY (PREREQ: ACC 543)
This course is designed to provide comprehensive coverage of the following: consolidations, partnership accounting, foreign operations and not-for-profit accounting. Coverage of the topics emphasizes both theory and practice. Mastery of the material is obtained through problem-solving situations. PREREQUISITE(S): ACC 543. NOTE: This is a M.S.A. or M.ACC course.

ACC 547
AUDIT AND REGULATION OF CORPORATE FINANCIAL REPORTING (PREREQ: ACC 541)
This course covers the theory of the auditing function. Topics covered include generally accepted auditing standards; the profession’s ethical and legal dimensions; audit planning; the internal control structure; audit evidence; and auditor’s reports. The development of the professional judgment needed to apply generally
accepted auditing standards is emphasized. PREREQUISITE: ACC 541. NOTE: This is a M.S.A. course.

ACC 548
TAX TREATMENT OF INDIVIDUALS AND PROPERTY TRANSACTIONS (ACC 500 OR EQUIVALENT)
This course provides detailed coverage of the federal income tax treatment of individual taxpayers. It includes coverage of inclusions, exclusions, deductions, credits, rates of taxation, special tax computations and the tax aspects of property transactions. This course is a prerequisite for students in the M.S.T. program not having the equivalent undergraduate coursework in taxation. PREREQUISITE (S): ACC 500 or equivalent. Note: This is a M.S.A. or M.ACC course.

ACC 550
ADVANCED TOPICS IN AUDITING (CROSS-LISTED AS ACC 620) (PREREQ: ACC 547)
This course covers the implementation of generally accepted auditing standards, to the audit of transaction cycles, auditing sampling and the audit of computer-based systems. The course also includes a review of recent statements on auditing standards. PREREQUISITE: ACC 547. NOTE: This is a M.S.A. course.

ACC 551
TAX TREATMENT OF CORPORATIONS AND PARTNERSHIPS (PREREQ: ACC 548 OR EQUIVALENT)
This course covers the federal income tax treatment of corporations and partnerships. It includes an exposure to estate and gift taxation and tax research. This course is a prerequisite for students in the M.S.T. program not having the equivalent undergraduate coursework in taxation. (A student may not receive credit for this course if he or she will also receive credit for Accountancy 584.) PREREQUISITE: ACC 548 or its equivalent. NOTE: This is a M.S.A. or M.ACC course.

ACC 552
LEGAL AND ETHICAL ENVIRONMENT OF ACCOUNTING PRACTICE (PREREQ: GRADUATE STANDING)
This course covers the aspects of the legal environment of special concern to accounting practitioners, including: the ethical standards of auditing and tax practice; legal liability of accountants; contract law; property law, commercial paper; the laws of agency; sales laws and public regulation and disclosure laws. PREREQUISITE: Graduate standing. Note: This course is a M.S.A. course.

ACC 555
MANAGEMENT ACCOUNTING FOR DECISION-MAKING (PREREQ: MGT 500, ACC 500 OR EQUIVALENT)
This course addresses the financial, nonfinancial & ethical dimensions of decision-making. It provides students with a conceptual understanding of cost management and managerial accounting skills. Topics include cost behavior, cost-volume-profit analysis, cost systems, budgeting and control and decision-making. Emphasis is on the interpretation & use of accounting information rather than its creation & accumulation. PREREQUISITE(S): MGT 500, ACC 500 or equivalent.

ACC 558
TAX RESEARCH (PREREQ: GRADUATE STANDING)
Tax research methods are taught in the classroom. The course begins with a study of the history of the body of tax law. A "walk through" technique is employed to give the student firsthand experience in the use of a tax research service. PREREQUISITE: Graduate standing. NOTE: This is a MST course.

ACC 559
TOPICS IN INDIVIDUAL AND CORPORATE TAXATION (PREREQ: ACC 551 OR EQUIVALENT AND ACC 558)
This course deals with a variety of topics which are important in tax practice, such a alternative minimum tax, passive losses, interest limitations, the at-risk rules, hobby losses, use of a home, net operating losses. Depreciation and capital recovery including related credits, unearned income of a minor child, uniform capitalization rules and time value of money concepts. PREREQUISITE: ACC 551 or equivalent and ACC 558. NOTE: This is a M.S.T. course.

ACC 560
TAXATION OF CORPORATIONS AND SHAREHOLDERS (PREREQ: ACC 566)
Emphasis is on the federal income taxation of distributions to corporate shareholders, including nonliquidating distributions and distributions in connection with liquidations. Collapsible corporations and the tax consequences of transfers of property to a corporation are also covered. PREREQUISITE (S): ACC 566. NOTE: This is a M.S.T. course.

ACC 561
CORPORATE REORGANIZATIONS (PREREQ(S): ACC 558 AND ACC 560)
Federal income tax implications of transfers of stock, securities and property in connection with corporate
acquisitions, combinations and separations. This course is mainly concerned with the tax consequences to
corporate parties, to reorganizations and to their shareholders. Emphasis is given to determining the
 taxableity of transactions and asserting the availability of tax attributes to successors in interest.
PREREQUISITE (S): ACC 558 and ACC 560. NOTE: This is a M.S.T. course.

ACC 562
CONSOLIDATED RETURNS (PREREQ(S): ACC 560 AND ACC 561)
This course deals with the principles and mechanics of tax consolidations including eligibility, intercompany
transactions, inventory adjustments, basis of property, net operating losses, earnings and profits and separate
return limitations. PREREQUISITE (S): ACC 560 and ACC 561. NOTE: This is a M.S.T. course.

ACC 563
PARTNERSHIPS ( PREREQ(S): ACC 551 OR EQUIVALENT AND ACC 558)
An in-depth analysis of the federal income tax rules governing partners and partnerships. This course
includes study of the aggregate and entity theories, partnership distributions and liquidations, dispositions of
partnership interests, transactions concerning unrealized receivables and substantially appreciated inventory
items and special basis adjustments. PREREQUISITE: ACC 551 or equivalent and ACC 558. NOTE: This is a M.S.
T. course.

ACC 564
TRANSACTIONS IN PROPERTY ( PREREQ(S): ACC 551 OR EQUIVALENT AND ACC 558T)
This course is concerned mainly with the federal income tax implications of gains and losses derived from
sales and other dispositions of property. Emphasis will be given to the determination and recognition of gain
or loss, character of gain or loss (capital or ordinary), basis and holding period. PREREQUISITE: ACC 551 or
equivalent and ACC 558. NOTE: This is a M.S.T. course.

ACC 565
TAX ACCOUNTING, PERIODS, AND METHODS (PREREQ: ACC 551 OR EQUIVALENT AND ACC 558)
This course deals with federal income tax planning as to determination of the proper periods for reporting
income and deductions, overall methods of tax accounting and special elections available to taxpayers.
Topics include the installment method, accounting method changes, accrual method, cash method, FIFO, LIFO
and accounting periods. PREREQUISITE: ACC 551 or equivalent and ACC 558. NOTE: This is a M.S.T. course.

ACC 566
FEDERAL INCOME TAX PROCEDURES (PREREQ(S): ACC 551 OR EQUIVALENT AND ACC 558)
A study of the procedures which must be followed when dealing with the Internal Revenue Service and
possible alternative courses of action. Included are such topics as the organization of the Internal Revenue
Service, filing requirements, refund claims, closing agreements, examination procedures, protests,
assessment, payment and collection of tax, statute of limitations, interest and penalties. PREREQUISITE (S):
ACC 551 or equivalent and ACC 558. NOTE: This is a M.S.T. course.

ACC 567
INTERNATIONAL ASPECTS OF U.S. TAXATION (PREREQ: ACC 551 OR EQUIVALENT AND ACC 558)
This course covers the federal income taxation of United States persons investing or doing business outside
the United States and nonresident aliens and foreign corporations having nexus with the United States.
Topics covered include, among others, the foreign tax credit, Subpart F income, controlled foreign
corporations, sourcing rules and expatriate taxation. PREREQUISITE: ACC 551 or equivalent and ACC 558.
NOTE: This is a M.S.T. course.

ACC 568
TAXATION OF CLOSELY HELD CORPORATIONS ( PREREQ(S): ACC 560 AND ACC 561)
This course deals with federal income tax planning in connection with the accumulated earnings tax, personal
holding companies, S corporations, multiple corporations, transactions between related parties and small
business corporation stock. PREREQUISITE (S): ACC 560 and ACC 561. NOTE: This is a M.S.T. course.

ACC 569
CONCEPTS OF DEFERRED COMPENSATION (PREREQ(S): ACC 551 OR EQUIVALENT AND ACC 558)
The nature, purpose and operation of the various forms of deferred compensation are examined and
evaluated: employee pension; profit sharing and stock bonus plans, stock options; executive compensation
plans; retirement plans for self-employed individuals; other plans. PREREQUISITE (S): ACC 551 or equivalent
and ACC 558. NOTE: This is a M.S.T. course.

ACC 570
STATE AND LOCAL INCOME AND FRANCHISE TAXATION (PREREQ(S): ACC 551 OR EQUIVALENT AND ACC 558)
This course identifies and examines the types of income and capital stock taxes imposed on corporations and pass-through entities by state governments. Topics include nexus and the impact of P.L. 86-272, conformity to the Internal Revenue Code, business and nonbusiness income, methods of reporting, and allocation and apportionment. PREREQUISITE (S): ACC 551 or equivalent and ACC 558. NOTE: This is a M.S.T. course.

ACC 571
ESTATE AND GIFT TAXATION (PREREQ(S): ACC 551 OR EQUIVALENT AND ACC 558)
This course consists of a detailed review of the federal estate and gift tax laws. In the area of estate taxation, assets included and deductions allowed are reviewed in detail by reference to law, regulations and cases. Recognition of gifts and gift tax deductions and exclusions are also covered. PREREQUISITE (S): ACC 551 or equivalent and ACC 558. NOTE: This is a M.S.T. course.

ACC 572
CONCEPTS OF STATE PROPERTY AND TRANSACTION TAXATION (PREREQ(S): ACC 551 OR EQUIVALENT AND ACC 558)
This course focuses on concepts of property and sales taxation, but will survey other state and local transaction taxes, including excise taxes, utility taxes, fuel taxes and escheat statutes. Property tax concepts include distinctions between real and personal property and valuation approaches. PREREQUISITE (S): ACC 551 or equivalent and ACC 558. NOTE: This is a M.S.T. course.

ACC 573
INCOME TAXATION OF ESTATES, TRUSTS, AND DECEDEDS (PREREQ: ACC 551 OR EQUIV, ACC 558 & ACC 571)
This course deals with federal income taxation of estates, trusts and decedents with special emphasis on such concepts as income in respect of a decedent and estate and trust distributions. Also, included are such topics as the income and deductions included in the decedent's final return, death of a partnership member, the income and deductions of estate and trusts, the throwback rule, grantor trusts and the tax ramifications of the use of other special trusts. PREREQUISITE (S): ACC 551 or equivalent, ACC 558 and ACC 571. NOTE: This is a M.S.T. course.

ACC 574
ESTATE PLANNING (PREREQ: ACC 571)
This course will deal primarily with how to avoid and minimize federal estate taxes and estate administration expenses upon the subsequent demise of the client. Therefore, the student must have taken the estate and gift taxation, the use of outright gifts, the use of trusts. Generation skipping transfers and charitable gifts will also be considered. PREREQUISITE: ACC 571. NOTE: This is a M.S.T. course.

ACC 576
FEDERAL TAX VALUATION
Fair market value is referenced hundreds of times in the Internal Revenue Code, and many more times in the Regulations. In the initial part of this course the procedures and methods applicable to tax valuation are reviewed to heighten practitioner awareness of the range of potential valuation outcomes, and the reasons therefore. Tax cases are used extensively to achieve this objective. In the second part of the course presentations and discussions address more specific topics such as built-in gains, determination of carryover of net operating losses, valuation aspects of charitable giving, conservation easements, ESOPs, family limited partnerships, reasonable compensation. S-corporations, special use properties, and transfer pricing.

ACC 577
TAXATION OF FINANCIAL PRODUCTS & MKT PARTICIPANTS (PREREQ: ACC 551, ACC 558 & ACC 564 OR EQUIV)
This course provides an in-depth analysis of the taxation of various financial products and market participants. Topics include the taxation of Section 1256 contracts; hedging transactions; foreign currency transactions and Section 988; information reporting requirements; joint venture, partnership and corporate considerations; treatment of dealers, traders and investors; and the impact of the passive activity rules and related provisions on market participants. PREREQUISITE(S): ACC 551, ACC 558 and ACC 564 or equivalent. NOTE: This is a M.S.T. course.

ACC 581
TAXATION OF REAL ESTATE (PREREQ: ACC 563 OR EQUIVALENT)
An in-depth study of federal income taxation as it relates to real estate, including current issues and planning possibilities. Topics include consequences of acquisition and disposition, real estate development, leasing, mortgages and other financing devices and forms of ownership of real estate. PREREQUISITE: ACC 563 or equivalent. NOTE: This is a M.S.T. course.
ACC 582
ADVANCED CONCEPTS IN INTERNATIONAL TAXATION (PREREQ: ACC 567 OR EQUIVALENT)
This advanced course is a companion offering to the introductory international taxation course (Accountancy 567). In this course, planning issues and tax savings opportunities are emphasized in complex areas, including source of income considerations, foreign tax credit matters, Subpart F issues and the tax matters of foreign corporations. In addition, tax treaty matters, international bribes and boycott sanctions and foreign currency translation issues are addressed. PREREQUISITE: ACC 567 or equivalent. NOTE: This is a M.S.T. course.

ACC 586
THE ROLE OF THE CHIEF FINANCIAL EXECUTIVE (PREREQ: GRADUATE STANDING)
Recent years have seen remarkable expansion of the financial executive's role in almost all organizations. No longer is this person's job essentially that of a chief accountant. Today the chief financial executive is deeply involved in the strategic aspects of management and is constantly called upon for data, analysis and advice by all levels of management. This course is therefore designed to assist students in understanding and preparing for this role as well as the roles of the treasurer and controller. Class presentations will be based on current or prior experience. PREREQUISITE (S): Graduate standing.

ACC 598
SEMINAR ON CURRENT PROBLEMS IN TAXATION (PREREQ: ACC 558, ACC 560, ACC 565 & ACC 566)
Covers recent significant developments in the future of legislation, regulations, administrative rulings and case law on federal income, estate and gift taxation. Emphasis is placed on specific tax planning in light of these current developments. Topics are discussed against background of leading Supreme Court cases. Recommended as final tax course in M.S.T. program. Required course for all candidates for Master of Science in Taxation degree. PREREQUISITE(S): ACC 558, ACC 560, ACC 565 & ACC 566

ACC 599
GRADUATE SEMINAR IN MANAGEMENT ACCOUNTING (PREREQ: ACC 502 OR EQUIVALENT)
Capstone seminar for M.B.A. students with a concentration in Management Accounting. Attention is directed to the current developments in Management Accounting. Students learn to exercise judgement in the solution of accounting-related problems by drawing upon their integrated and comprehensive body of accounting and related knowledge. This seminar involves extensive reading and research in the literature of management accounting and related disciplines. PREREQUISITE: ACC 502 or equivalent.

ACC 610
ACCOUNTING INFORMATION SYSTEMS (CROSS-LISTED AS ACC 535) (PREREQ: ACC 555 OR EQUIVALENT)
Today's businessperson requires a fundamental knowledge of computer-based information systems and their role in accounting functions and financial decision-making. This course will enable the student to interface with accounting systems and to participate in their design and audit. It will focus on the nature and flows of accounting information in organizations, security, internal controls, the use of information technology in accounting information systems and decision-making. PREREQUISITE(S): ACC 555 or equivalent. NOTE: This is a M.S.A. or a M.ACC course.

ACC 620
ADVANCED AUDITING THEORY (CROSS-LISTED AS ACC 550) (PREREQ: ACC 372 OR ACC 547 OR EQUIVALENT)
Advanced study of auditing that includes the implementation of generally accepted auditing standards, the audit of computer-based systems and the application of statistical methods in auditing. Coverage of the concepts and literature will include the study and evaluation of internal control in computer-based systems, the application of statistical methods to tests of controls and balances, and the use of computerized software packages in the audit process. An intensive review of current authoritative literature in auditing is also provided. PREREQUISITE (S):ACC 372 or ACC 547 or equivalent. NOTE: This is a M.ACC course instead of MSA.

ACC 630
BUDGETING, FINANCIAL PLANNING & CONTROL (PREREQ: ACC 542 OR EQUIVALENT)
The study of quantitative, organizational behavioral aspects of budgeting for management planning and control. Topics include strategic planning, long-range planning, budgeting, cost analysis, capital budgeting, transfer pricing and divisional performance measurement. Exposure given to special applications in nonprofit organizations. Emphasis is placed on the use of accounting information for effective planning and control. (Enrollment is limited to students in the M.Acc, or P.M.S.A. programs or permission of instructor.) PREREQUISITE (S):ACC 542 or equivalent. NOTE: This is a M.S.A. course

ACC 640
ACCOUNTING THEORY AND POLICY FORMULATION (PREREQ: ACC 544, 545, 550 & 557 OR EQUIVALENT)
A study of the process by which accounting policies are formulated. The students are asked to make critical evaluations of basic issues such as income determination and current issues such as FASB agenda items in light of their theoretical, empirical, practical and political aspects. Students are expected to demonstrate an ability to use the accounting research literature. Students should plan to take this capstone course at the end of their degree program. (Enrollment is limited to students in the M.Acc or M.S.A. programs.) PREREQUISITE (S): ACC 544, 545, and 550 or equivalent. NOTE: This is a M.S.A. and a M.ACC course.

ACC 690
GRADUATE INTERNSHIP (PREREQUISITE: PERMISSION)
Technical knowledge acquired in the classroom is applied in an actual business environment through varied assignments under supervision in industry, government or public accounting. Offered variably.
PREREQUISITE (S): Permission.

ACC 798
SPECIAL TOPICS (PREREQ: AS INDICATED IN CLASS SCHEDULE)
Content and format of this course are variable. An in-depth study of current issues in accountancy. Subject matter will be indicated in class schedule. Offered variably. PREREQUISITE (S): As indicated in the class schedule.

ACC 799
INDEPENDENT STUDY (PREREQ: WRITTEN PERMISSION)
Available for graduate students of demonstrated capability for intensive independent work in accountancy. PREREQUISITE: Written permission.

Animation

Graduate Course Descriptions A Animation

Animation

ANI 420
ANIMATION PRODUCTION
Students study the traditional processes used for the production of animation for cinema and games. Topics include pre-production, sound, planning and scheduling, the division of labor, and post-production. Students will apply these methods to their own projects, using the medium of their choice. PREREQUISITE(S): ANI 101 or 201

ANI 430
3D CHARACTER ANIMATION
This course concentrates on the acting techniques of classical character animation as applied to 3D animation technology, both for cinema and game design. We will examine the history of the field in hand-drawn, stop-motion and 3D, focusing especially on the principles developed at the Disney and Warner Brothers studios. The student will explore the technical aspects of translating these ideas to 3D models, including basic modeling, skinning, bone systems, rigging and kinematics, but the main focus will be on creative performance. Exercises will cover communicating the illusion of intelligence, mood through movement, staging, acting basics, the feeling of weight, and progressing dialogue. PREREQUISITE(S): ANI 231 or GPH 438.

ANI 435
ADVANCED 3D MODELING FOR ANIMATION AND GAMING
This course will involve the creation of advanced polygon models with a focus on character creation. Students will learn professional techniques including quad-based modeling and proper edge flow. Students will also learn how to set up their characters for animation. PREREQUISITES: ANI 230 or GPH 250 or GPH 425

ANI 439
3D TEXTURING AND LIGHTING
Students will study the processes and techniques for creating shaders and lighting setups for both cinematic and gaming environments. Techniques in UV mapping and projection mapping will be explored for both
environments and character creation. Lighting will be approached from the foundation of traditional
cinematography. Additional topics, including negative lighting and global illumination, will also be covered.
PREREQUISITE(S): ANI 230 or GPH 250

ANI 450
MOTION CAPTURE WORKSHOP
This course is a workshop focusing on realistic character motion obtained through motion capture. Students
will learn the motion capture pipeline, including character skinning and mapping, planning and directing
motion capture sessions, applying motion to a character and motion editing. PREREQUISITE(S): ANI 231 or
GPH 438.

ANI 490
TOPICS IN ANIMATION
Advanced study in animation focusing on a specific area each quarter. May be repeated for credit.
Prerequisites: ANI 101 or ANI 201 or consent of the instructor.

ANI 493
TOPICS IN 3D ANIMATION
Advanced study in 3D animation focusing on a specific area each quarter. May be repeated for credit.
Prerequisites: ANI 230 or consent of the instructor.

Applied Brass

APB 410
BARITONE HORN
(2 or 4 credits) Open only to music students. Students may not enroll in applied lessons in excess of 4
quarter hours per quarter. All graduate music students may enroll in up to 24 quarter hours of applied study
during their graduate career. No student may exceed the 24 quarter hour limit.

APB 430
FRENCH HORN
(2 or 4 credits) Open only to music students. Students may not enroll in applied lessons in excess of 4
quarter hours per quarter. All graduate music students may enroll in up to 24 quarter hours of applied study
during their graduate career. No student may exceed the 24 quarter hour limit.

APB 465
TROMBONE
(2 or 4 credits) Open only to music students. Students may not enroll in applied lessons in excess of 4
quarter hours per quarter. All graduate music students may enroll in up to 24 quarter hours of applied study
during their graduate career. No student may exceed the 24 quarter hour limit.

APB 467
JAZZ TROMBONE
(2 or 4 credits) Open only to music students. Students may not enroll in applied lessons in excess of 4
quarter hours per quarter. All graduate music students may enroll in up to 24 quarter hours of applied study
during their graduate career. No student may exceed the 24 quarter hour limit.

APB 470
TRUMPET
(2 or 4 credits) Open only to music students. Students may not enroll in applied lessons in excess of 4
quarter hours per quarter. All graduate music students may enroll in up to 24 quarter hours of applied study
during their graduate career. No student may exceed the 24 quarter hour limit.
APB 472
JAZZ TRUMPET
(2 or 4 credits) Open only to music students. Students may not enroll in applied lessons in excess of 4 quarter hours per quarter. All graduate music students may enroll in up to 24 quarter hours of applied study during their graduate career. No student may exceed the 24 quarter hour limit.

APB 475
TUBA
(2 or 4 credits) Open only to music students. Students may not enroll in applied lessons in excess of 4 quarter hours per quarter. All graduate music students may enroll in up to 24 quarter hours of applied study during their graduate career. No student may exceed the 24 quarter hour limit.

Applied Keyboard

Graduate Course Descriptions

Applied Keyboard

APK 440
ORGAN
(2 or 4 credits) Open only to music students. Students may not enroll in applied lessons in excess of 4 quarter hours per quarter. All graduate music students may enroll in up to 24 quarter hours of applied study during their graduate career. No student may exceed the 24 quarter hour limit.

APK 450
PIANO
(2 or 4 credits) Open only to music students. Students may not enroll in applied lessons in excess of 4 quarter hours per quarter. All graduate music students may enroll in up to 24 quarter hours of applied study during their graduate career. No student may exceed the 24 quarter hour limit.

APK 452
JAZZ PIANO
(2 or 4 credits) Open only to music students. Students may not enroll in applied lessons in excess of 4 quarter hours per quarter. All graduate music students may enroll in up to 24 quarter hours of applied study during their graduate career. No student may exceed the 24 quarter hour limit.

APK 460
HARPSICHORD
(2 or 4 credits) Open only to music students. Students may not enroll in applied lessons in excess of 4 quarter hours per quarter. All graduate music students may enroll in up to 24 quarter hours of applied study during their graduate career. No student may exceed the 24 quarter hour limit.

Applied Music

Graduate Course Descriptions

Applied Music

APM 400
APM 400
OPERA WORKSHOP
(2 credits) This is a results oriented course for students who have completed basic acting/performing studies and are ready to engage those skills in work to be presented for public performance.

APM 405
GRADUATE RECITAL
A full 60 minute, public recital performance of solo and/or chamber repertoire to be completed during the graduate residence. This recital is required as partial fulfillment of the degree of Master of Music in Performance and for the post-Masters Certificate in Performance. COREQUISITE: Students must be registered for a total of 4 credits of applied lessons during the quarter the recital is presented.

APM 415
ITALIAN DICTION/LANGUAGE LAB FOR GRADUATE STUDENTS
This course is offered in conjunction with the first year of graduate vocal study. It focuses on the translation, pronunciation, grammatical understanding, and interpretation of Italian texts.

APM 416
GERMAN DICTION/LANGUAGE LAB FOR GRADUATE STUDENTS
This course is offered in conjunction with the first year of graduate vocal study. It focuses on the translation, pronunciation, grammatical understanding, and interpretation of German texts.

APM 417
FRENCH DICTION/LANGUAGE LAB FOR GRADUATE STUDENTS
This course is offered in conjunction with the first year of graduate vocal study. It focuses on the translation, pronunciation, grammatical understanding, and interpretation of French texts.

APM 420
REVEALING THE ACTORSINGER WITHIN
A graduate course designed to stimulate and uncover the imagination, instinct, and vulnerability of the ActorSinger. The student will discover and integrate the tools toward becoming an expressive and passionate communicator and story-teller.

APM 426
HISTORY AND LITERATURE OF WOODWINDS
History And Literature Of Woodwinds

APM 428
ORCHESTRAL REPERTOIRE FOR WOODWINDS
(2 credits)

APM 429
ORCHESTRAL REPERTOIRE FOR STRINGS
(1 credit) Study of standard orchestral repertoire.

APM 431
THE ART OF THE PIANO
The course is designed to introduce the art of piano playing as a part of broader spectrum of the world culture, and to guide the graduate students in their search for the true mastery, where playing the instrument is identified as an artistic expression of spiritual freedom, and technical prowess is seen as a step to meaningful communication.

APM 442
ACCOMPANYING CLASS
(2 credits) Role of pianist as accompanist.

APM 443
CHAMBER MUSIC WORKSHOP

APM 446
PERCUSSION PEDAGOGY
(3 credits)

APM 447
APM 447
ORCHESTRAL REPERTOIRE: PERCUSSION
Study of standard orchestral repertoire.

APM 451
PIANO PEDAGOGY
(3 credits) Offered Fall Quarter only.

APM 453
ADVANCED TECHNIQUES OF THE MUSIC STAGE
(2 credits)

APM 471
BRASS CONCEPTS
(2 credits)

APM 486
STRING PEDAGOGY
(2 credits) Concepts and philosophies, teaching beginners to advancing students, and coaching chamber music.

APM 487
ADVANCED VOCAL DICTION
(2 credits) Advanced study in Italian, French and German diction, phrasing and text translation.

APM 496
VOICE PEDAGOGY
(2 credits) Course is designed to enhance APM 336.

APM 497
SEMINAR
(2 credits) A seminar for performance majors and others, in which emphasis is placed on performance practices, program building and other areas connected with a performing career.

APM 498
INDEPENDENT STUDY
INDEPENDENT STUDY

Applied Percussion

Graduate Course Descriptions

Applied Percussion

APP 400
PERCUSSION (2 or 4 credits) Open only to music students. Students may not enroll in applied lessons in excess of 4 quarter hours per quarter. All graduate music students may enroll in up to 24 quarter hours of applied study during their graduate career. No student may exceed the 24 quarter hour limit.

APP 401
JAZZ PERCUSSION (2 or 4 credits) Open only to music students. Students may not enroll in applied lessons in excess of 4 quarter hours per quarter. All graduate music students may enroll in up to 24 quarter hours of applied study during their graduate career. No student may exceed the 24 quarter hour limit.

APS 427
GUITAR (2 or 4 credits) Open only to music students. Students may not enroll in applied lessons in excess of 4 quarter hours per quarter. All graduate music students may enroll in up to 24 quarter hours of applied study during their graduate career. No student may exceed the 24 quarter hour limit.
Applied Strings

Graduate Course Descriptions

Applied Strings

APS 429  
**JAZZ GUITAR (2 or 4 credits)**  Open only to music students. Students may not enroll in applied lessons in excess of 4 quarter hours per quarter. All graduate music students may enroll in up to 24 quarter hours of applied study during their graduate career. No student may exceed the 24 quarter hour limit.

APS 437  
**HARP (2 or 4 credits)**  Open only to music students. Music Students may not enroll in applied lessons in excess of 4 quarter hours per quarter. All applied lessons are repeatable courses.

APS 460  
**STRING BASS (2 or 4 credits)**  Open only to music students. Students may not enroll in applied lessons in excess of 4 quarter hours per quarter. All graduate music students may enroll in up to 24 quarter hours of applied study during their graduate career. No student may exceed the 24 quarter hour limit.

APS 462  
**JAZZ STRING BASS (2 or 4 credits)**  Open only to music students. Students may not enroll in applied lessons in excess of 4 quarter hours per quarter. All graduate music students may enroll in up to 24 quarter hours of applied study during their graduate career. No student may exceed the 24 quarter hour limit.

APS 480  
**VIOLA (2 or 4 credits)**  Open only to music students. Students may not enroll in applied lessons in excess of 4 quarter hours per quarter. All graduate music students may enroll in up to 24 quarter hours of applied study during their graduate career. No student may exceed the 24 quarter hour limit.

APS 485  
**VIOLIN (2 or 4 credits)**  Open only to music students. Students may not enroll in applied lessons in excess of 4 quarter hours per quarter. All graduate music students may enroll in up to 24 quarter hours of applied study during their graduate career. No student may exceed the 24 quarter hour limit.

APS 490  
**VIOLONCELLO (2 or 4 credits)**  Open only to music students. Students may not enroll in applied lessons in excess of 4 quarter hours per quarter. All graduate music students may enroll in up to 24 quarter hours of applied study during their graduate career. No student may exceed the 24 quarter hour limit.

Applied Voice

Graduate Course Descriptions

Applied Voice

APV 400  
**VOICE-STUDIO (2 or 4 credits)**  Open only to music students. Students may not enroll in applied lessons in excess of 4 quarter hours per quarter. All graduate music students may enroll in up to 24 quarter hours of applied study during their graduate career. No student may exceed the 24 quarter hour limit.
Applied Woodwinds

Applied Woodwinds

APW 415
BASSOON (2 or 4 credits) Open only to music students. Students may not enroll in applied lessons in excess of 4 quarter hours per quarter. All graduate music students may enroll in up to 24 quarter hours of applied study during their graduate career. No student may exceed the 24 quarter hour limit.

APW 420
CLARINET (2 or 4 credits) Open only to music students. Students may not enroll in applied lessons in excess of 4 quarter hours per quarter. All graduate music students may enroll in up to 24 quarter hours of applied study during their graduate career. No student may exceed the 24 quarter hour limit.

APW 425
FLUTE (2 or 4 credits) Open only to music students. Students may not enroll in applied lessons in excess of 4 quarter hours per quarter. All graduate music students may enroll in up to 24 quarter hours of applied study during their graduate career. No student may exceed the 24 quarter hour limit.

APW 435
OBOE (2 or 4 credits) Open only to music students. Students may not enroll in applied lessons in excess of 4 quarter hours per quarter. All graduate music students may enroll in up to 24 quarter hours of applied study during their graduate career. No student may exceed the 24 quarter hour limit.

APW 455
SAXOPHONE (2 or 4 credits) Open only to music students. Students may not enroll in applied lessons in excess of 4 quarter hours per quarter. All graduate music students may enroll in up to 24 quarter hours of applied study during their graduate career. No student may exceed the 24 quarter hour limit.

APW 457
JAZZ SAXOPHONE (2 or 4 credits) Open only to music students. Students may not enroll in applied lessons in excess of 4 quarter hours per quarter. All graduate music students may enroll in up to 24 quarter hours of applied study during their graduate career. No student may exceed the 24 quarter hour limit.

Arabic

Arabic

ARB 497
SPECIAL TOPICS IN ARABIC See schedule for current offerings. Graduate standing required.
ARB 498
FOREIGN STUDY [PREREQ(S): PERMISSION] Variable credit. Prerequisite(s): permission required. Graduate standing required.

ARB 499
INDEPENDENT STUDY [PREREQ(S): PERMISSION OF CHAIR & INSTRUCTOR] Variable credit. Permission of chair and instructor required. Graduate standing required.

Art and Art History

Graduate Course Descriptions

Art and Art History

ART 400
CHICAGO: ARCHITECTURE AND URBANISM Chicago: Architecture And Urbanism

ART 401
GRADUATE TOPICS IN ART HISTORY (PREREQ.: GRADUATE STDG OR CONSENT) Graduate level, intensively researched investigations into topics from the history of Western and Non-Western artforms taught by an instructor with a research specialty in that topic. PREREQUISITE(S): Graduate standing or consent of the instructor.

ART 405
ADVANCED COLOR DESIGN (PREREQ(S): ART 105) Advanced Color Design PREREQUISITE(S): ART 105

ART 427

ART 460

ART 461
ART AND DESIGN II: WORD AND IMAGE Graphic Design II

ART 489
VIDEO ART [PREREQ(S): INSTRUCTOR CONSENT] An advanced level course designed to introduce students to the uses of video within a variety of artistic practices including installation, projection and performance as well as linear, single-channel non-narrative, non-documentary pieces. This course will take a “theory/practice” approach. Instruction will combine a study of the historical uses of video in the art world as well as the theoretical and critical perspectives on the practices of a wide range of artists who use video. Hands-on application of these concepts will be applied to the students' own work, culminating in a finished project by the end of the term which will be edited in the computer application Dreamweaver, Flash and Fireworks. Basic literacy with Macintosh platform is required. Graduate students will do extra work for this class. Prerequisite(s): instructor's consent.

ART 490
GRADUATE TOPICS IN STUDIO (PREREQ.: GRADUATE STDG OR CONSENT) Intensive studio experience in the student's media of choice. PREREQUISITE(S): Graduate standing or consent of instructor.

ART 495
ADVANCED TOPICS IN ART HISTORY (PREREQ(S): GRADUATE STDG OR CONSENT) Advanced Topics In Art History PREREQUISITE(S): Graduate standing or consent of the instructor.
Bilingual-Bicultural Education

Graduate Course Descriptions □ B □ Bilingual-Bicultural Education

**Bilingual- Bicultural Education**

**BBE 402**  
**BILINGUAL-BICULTURAL CURRICULUM DEVELOPMENT (4 credits)** Reviews theory and application of curriculum development to bilingual instructional programs, such as design, organizational patterns, materials and media, teacher training, parent and community involvement, and evaluation. Principal bilingual education program models are examined and analyzed. Includes a review of multiethnic literature and literacy that advocates for students' self-concept, acceptance, and sense of identity (includes 10 clinical hour requirement).

**BBE 404**  
**LANGUAGE, LITERACY AND CULTURE (4 credits, formerly LSI 404)** Examines the interdisciplinary study of language and literacy in their cultural, social, and political contexts, with emphasis on linguistically diverse communities and the implications for human developmental processes. Explores the social and political conditions that endorse different language and literacy practices and doctrines and create anti-bilingual education ideologies in the U.S. Topics include language and literacy and ethnicity, identity, social class, and gender, among other related topics.

**BBE 406**  
**SOCIOCULTURAL AND HISTORICAL PERSPECTIVES IN BILINGUAL EDUCATION (4 credits, formerly LSI 406)** Presents theoretical constructs of bilingual schooling in the U.S. and other multilingual societies from historical, theoretical and sociocultural perspectives. Emphasizes issues in bilingual education related to the sociocultural and legal aspects of language policy and bilingual education in the U.S. The historical trajectory of language policy and bilingual education in the U.S. is discussed in reference to Native American languages and early European settlers' language schooling practices. The focus shifts to 20th and 21st century bilingual education and immigration policies that have influenced both the advocacy for and opposition to bilingual education as well as the movement to make English the official language in the U.S.

**BBE 407**  
**EQUITY ISSUES IN ASSESSMENT (4 credits, formerly LSI 407)** Examines assessment procedures, including standardized and performance-based, as well as ethical standards and practices used in the assessment of culturally and linguistically diverse students. Equity and legal issues related to assessment practices, research, first and second language acquisition, bilingualism, cultural and sociopolitical issues related to assessment are discussed. Emphasizes existing biases in assessment and non-discriminatory assessment practices and policies. National, state, and local assessment policies are examined (includes 10 clinical hour requirement).

**BBE 425**  
**BILITERACY PRACTICES IN BILINGUAL EDUCATION AND ESL (4 credits, formerly LSI 425)** Analyzes and evaluates methods and materials used in bilingual education and ESL programs. Stresses effective instructional strategies and best practices in first and second language literacy development and content learning. Reviews language teaching approaches and cooperative models of learning relating to development of reading and writing in the first and second language. Presents the acquiring language through content learning versus learning language programs. Investigates appropriate first language usage in bilingual classrooms, focusing on the different content areas, appropriate terminology for native language instruction, and the study of language distribution issues (includes 15 clinical hour requirement).

**BBE 466**  
**FIRST AND SECOND LANGUAGE ACQUISITION (4 credits)** Addresses the relationship between language development and use and social, emotional, cognitive, and physical development of children. Introduces the study of bilingualism by examining theoretical constructs and research in psycholinguistics, sociolinguistics, and applied linguistics. Includes an analysis of language contact phenomena, cross-linguistic transfer, language alteration, language shift and loss, and bilingualism (includes 10 clinical hour requirement).
BBE 474
BILITERACY PRACTICES: ELEMENTARY Presents current perspectives and approaches to teaching literacy to culturally diverse second language learners in the elementary grades. Includes review of instructional materials, strategies for teaching literacy, and assessment instruments appropriate for the development of biliteracy as well as literacy in a second language. Special attention is given to considerations for transference from L1 to L2. An analysis of emergent literacy in the native and second language related to transfer and interference between the first and second language and literacy skills is also presented (includes 15 clinical hour requirement).

BBE 476
BILITERACY PRACTICES: SECONDARY/ADULT Analyzes and evaluates current research and pedagogical approaches used in second language programs in relation to literacy instruction in the secondary and adult classroom settings. The course focuses on effective instructional strategies and best practices in first and second language literacy development. Special attention is given to content area learning in relation to acquiring literacy skills in a second language for secondary students. The course reviews language and literacy instructional approaches and cooperative models of learning related to the development of reading and writing in the first and second language. Discussions center on issues of acquiring language and literacy skills through content instruction as well authentic and performance-based assessment. Investigates appropriate first and second language development in bilingual, ESL and foreign language classrooms, focusing on the different aspects of literacy and subject matter learning (includes 15 clinical hour requirement).

BBE 510
ADVANCED LANGUAGE SEMINAR This course is designed to explore a specific area of study in the field of linguistics, such as sociolinguistics, psycholinguistics, applied linguistics, language planning and policy, and cognitive bilingualism, among other related topics. The particular focus of study will vary and change as the course is offered.

BBE 520
RESEARCH METHODS IN BILINGUAL & BICULTURAL STUDIES (4 credits) Introduces and develops research design for the study of linguistic, social, and psychological variables in bilingual, second language, and dialectically diverse populations; emphasis on designing and carrying out a research project related to bilingual education and/or second language acquisition issues. The Research Methods in Bilingual & Bicultural Studies course will focus on research issues in bilingual-bicultural education. It will provide students with opportunities to develop research questions, establish methods, review research literature, and begin field work for the writing of their Masters theses or M.Ed. papers. PREREQUISITE: SCG 410.

BBE 524
METHODS OF TEACHING ESL (4 credits, formerly CS 524) Course examines the relationship of reading and writing development to second language acquisition in ESL contexts. Discusses various learning and teaching approaches that effectively extend English language learners' literacy and language skills. Explores the literacy progress of native and non-native speakers of English by examining the theoretical perspectives of language and literacy development (includes 15 clinical hour requirement).

BBE 526
THEORETICAL FOUNDATIONS OF TEACHING ESL (4 credits, formerly CS 526) Presents an introduction to the field of English as a second language, with attention to basic concepts of second language acquisition in various language learning contexts. Discusses interdisciplinary perspectives of second language acquisition and their application to classroom practices. The different factors influencing the acquisition of English as a second language are examined as well as current research in applied linguistics and different approaches to language teaching.

BBE 554
METHODS OF TEACHING ESL: ELEMENTARY The course provides an in-depth study of instructional approaches and curricular designs for the second language elementary classroom setting. Presents reviews and critiques specific methods and strategies for teaching second language learners, as well as comparative methods of learning the first and second language. Emphasizes methods for implementing constructivist strategies such as cooperative leaning, thematic approach, flexible grouping, and sheltered instruction. The course provides guidelines for planning effective lessons using both thematic units and content-based subject matter. A critical focus of this course is on teaching and learning ESL through the content areas for elementary students (includes 15 clinical hour requirement).

BBE 556
METHODS OF TEACHING ESL: SECONDARY/ADULT The course explores the theoretical underpinnings and the applications of second-language theories and cultural knowledge to ESL teaching methodology and curriculum design in secondary and adult classroom settings. In addition, various approaches to second language teaching and learning as well as methods for modifying lessons to suit the needs of second-language learners to enhance their acquisition and use of English are presented. Concentrates on assisting educators in the development of appropriate strategies for teaching speaking, listening, reading, writing, and grammar in ESL environments. A major focus of this course is on teaching and learning ESL through the content areas through effective lessons panning using both thematic units and content-based subject matter. The course explores constructivist approaches such as sheltered language instruction (includes 15 clinical hour requirement).

BBE  588
INDEPENDENT STUDY IN BILINGUAL BICULTURAL EDUCATION (PERMISSION REQUIRED) PREREQUISITE(S): Permission of instructor, program chair and associate dean.

BBE  589
THESIS RESEARCH IN BILINGUAL-BICULTURAL EDUCATION (4 credits) A student writing a thesis registers for this course for four quarter hours of credit. When the thesis research and writing of the thesis are prolonged beyond the usual time, the program advisor may require the student to register for additional credit.

BBE  600
REGISTERED STUDENT IN GOOD STANDING (0 credit) This registration is required of all students who are not enrolled in a course but are completing course requirements and/or research. It provides access to University facilities. $50 per quarter. Non-Credit Course.

BBE  606
REVIEW OF LITERATURE This paper will give students the opportunity to develop and demonstrate written competence in a subfield of their disciplines and to enhance life-long learning. Specifically, they will broaden their knowledge base and inform themselves about a topic, issue, theory, etc., reviewing and synthesizing existing literature. To do so, students will need a variety of bibliographic skills including searching data bases.

BBE  607
INTEGRATIVE PAPER Students will observe and/or participate in the reciprocal interaction of theory and practice, by investigating actual practice in the field as it relates to theory. This might take the form of investigating how a particular theory is applied in the field, developing a practical application of a theory, or, conversely, developing/refining a theory based on investigations made in the field. In other words, as graduates encounter new theories and practices they will need to be able to investigate and evaluate them, asking and answering questions about “how theories work.”

BBE  608
CAPSTONE IN BILINGUAL-BICULTURAL EDUCATION Culminating experience(s) that help(s) students acquire the qualities of professionalism and leadership needed to play a significant role in one’s professional education community. Students are expected to situate and understand educational issues in a larger context; keep current in and be able to organize and present a body of research on an education-related question; connect research with practical, professional activity; demonstrate mastery of a sub-field of a discipline; write in a format that meets accepted scholarly criteria and participate in an ongoing professional conversation. A final product such as master’s paper(s), comprehensive exam, or collection of professional work products is required.

BBE  97
100 FIELD EXPERIENCE HOURS IN ESL / BE DOCUMENTED (non-credit) Required of all Bilingual Bicultural students. Observations and participatory experience with children and youth in a school or agency. The observation hours are a prerequisite for student teaching and related professional courses.
Developing Topics for Research (BIO 400)
The purpose of this course is to help graduate students in formulating research questions and design methods while improving written expression and oral presentation skills. Students will, with the guidance of a faculty member, undertake a detailed investigation of a topic, formulate a potential research project in that area, and present their proposal orally to the faculty at the end of the quarter. Two quarter hours.

Independent Study (BIO 401)
Two or four quarter hours. Experimental and/or Library study of selected topics in the life sciences. A-Cell Biology, B-Immunobiology, C-Developmental Biology, D-Physiology, E-Endocrinology, F-Genetics, G-Structural Biology, H-Ecology, I-Molecular Biology, J-Neurobiology. Offered in the Autumn, Winter, Spring and Summer quarters. Two or four quarter hours.

Biometry (Lab Fee) (BIO 405)
Biometry (lab Fee) (cross-Listed As Bio 305) A study of the functional and developmental aspects of flowering plants. Lecture-laboratory. Lab fee.

Plant Physiology (Lab Fee) (BIO 409)

Topics in Ecology (BIO 415)
Topics in Ecology (cross-Listed As Bio 315) (Prerequisite(s): Graduate Standing or Consent) The focus of this course is to read and critique classic papers in ecology and to connect their foundational ideas with modern research and understanding. Prerequisite(s): Graduate standing or consent of instructor.

Phycology (Lab Fee) (BIO 416)
Phycology (cross-Listed As Bio 316) (Lab Fee) Introduction to algae with emphasis on taxonomy, morphology, ultrastructure, physiology, life histories of freshwater and marine species. Lecture-laboratory. Lab fee. Prerequisite(s): Graduate standing or consent of instructor.

Aquatic Biology (Lab Fee) (BIO 417)
Aquatic Biology (cross-Listed As Bio 317) (Lab Fee) The study of biological, physical and chemical phenomena in fresh water and marine environments. Emphasis on organisms and their interactions. Lecture-laboratory. Lab fee. Prerequisite(s): Graduate standing or consent of instructor.

Microbial Ecology (BIO 420)
This course will explore key roles that microorganisms play in life on earth and how they are being used in biotechnology. This is a lab course, which will enable students to study processes used in the enrichment, isolation, and identification of microorganisms from various environments.

Cellular Events in the Immune Response (BIO 425)
Cellular Events in the Immune Response Analysis of cellular and subcellular interactions in the immune response. Lecture, seminar, discussion. Prerequisite(s): Completion of Immunobiology course or its equivalent.

Developmental Biology (BIO 430)
Developmental Biology A survey of developmental phenomena in animals from fertilization to sexual maturity. Topics include gametogenesis, early cell divisions, organ formation, metamorphosis, regeneration, birth defects, stem cells, reproductive technology and mammalian cloning. Lecture-laboratory. Lab fee. Prerequisites: Bio 250 AND Bio 260 or consent of instructor.

Topics in Developmental Biology (BIO 431)
Topics in Developmental Biology (cross-Listed As Bio 331) This seminar course examines the current embryological literature using both evolutionary and molecular perspectives. Previous student-led topics include: how early embryos are organized, the signals controlling left-right asymmetry, the evolutionary origin of feathers and the development of the retina. Prerequisite(s): BIO 330 or BIO 360 or consent of instructor.

Mycoecology (BIO 433)
Mycoecology (cross-Listed As Bio 333) This course provides an opportunity for students to integrate their knowledge of cell biology, genetics, ecology and physiology at the organismal level by focusing on fungi.
Students will gain an appreciation of the biological diversity within the major groups of fungi and their role in the environment, research and biotechnology. Lecture-laboratory. Lab fee.

**BIO 435**

CONCEPTS IN EVOLUTION (CROSS-LISTED AS BIO 335) Study of evolution and diversity in the living world. Lecture only.

**BIO 439**

CELLULAR NEUROBIOLOGY (CROSS-LISTED AS BIO 339) A study of the cellular and molecular mechanisms of the nervous system and the role they play in neural signaling and neural development. PREREQUISITE(S): Graduate standing or consent of the instructor.

**BIO 440**

SYSTEMS NEUROBIOLOGY (CROSS-LISTED AS BIO 340) An examination of the ways in which neural systems underpin behavior with an emphasis on vertebrates. In this course, behavior is understood in its broadest sense, from the functioning of organs and organ systems to the activities of whole organisms. Lecture-Laboratory. Lab Fee. PREREQUISITE(S): Graduate standing or consent of instructor.

**BIO 441**

TOPICS IN NEUROBIOLOGY A seminar course examining current topics in neurobiology. Original readings will include both current review and classic articles in the fields of neurobiology, neuroethology and the related neurosciences. PREREQUISITE(S): BIO 439 or BIO 440.

**BIO 445**

TOPICS IN PALEOBIOLOGY (CROSS-LISTED AS BIO 345) A seminar course examining various topics in paleobiology (the study of ancient life) including morphological concepts, macroevolutionary processes, extinction events, phylogenetic systematics, paleoecology, paleobiogeography, and the adequacy of the fossil record. Readings include classic and recent articles in the fields of paleobiology.

**BIO 447**

TOPICS IN MEDICAL BACTERIOLOGY This course will address current topics of concern and research in medical bacteriology. Students participating in this course will explore key concepts used in bacterial pathogenesis and learn how to critically appraise recent research papers in the field. Prerequisite: Completion of BIO 210 or equivalent.

**BIO 448**

THE BIOLOGY OF INFECTION This course will provide students with detailed knowledge of medically important bacteria. The course will first examine common events in infections and the body's responses to infection. We will highlight in these studies the changes in both hosts and pathogens as strategies of infection and immunity evolve relative to one another. Within this framework we will examine a spectrum of infectious diseases in detail. PREREQUISITES: BIO 210 (Microbiology), BIO 250 (Cell Biology), and BIO 370 (Immunobiology)

**BIO 450**

PROBLEMS IN CELL MOTILITY Analysis of contemporary problems in cellular movements, with emphasis on the biochemistry, biophysics and regulation of cell and organelle movements. Lecture, seminar, discussion.

**BIO 452**

ADVANCED COMPARATIVE PHYSIOLOGY (CROSS-LISTED AS BIO 352) Comparative and environmental approach to the function and mechanisms of vertebrate organ systems. Selected topics in comparative physiology will be addressed using a lecture/discussion/seminar format.

**BIO 455**

GENETIC TOXICOLOGY [PREREQ(S): BIO 260] This course will deal with the study of agents that damage the genome or alter the proper functioning of the genome that can lead to disease in humans. Topics covered will include basic spectrum of genetic damage and chromosomal effects, mechanisms of mutations, DNA repair, genetic assays used for evaluation of genetic toxicology, health consequences of genetic damage, including cancer and inheritable mutations, and the current position of US government and global regulatory agencies on the issues of genetic toxicology. Prerequisite(s): BIO 260.

**BIO 460**

MOLECULAR BIOLOGY (CROSS-LISTED AS BIO 360) (LAB FEE) Study of biology at the molecular level, focusing on the regulation of gene expression and the principles of genetic engineering. Lecture-laboratory. Lab fee.
BIO 461
TOPICS IN MOLECULAR BIOLOGY (CROSS-LISTED AS BIO 361) Discussion and seminars in selected areas of molecular biology.

BIO 465
PRINCIPLES OF TOXICOLOGY (PREREQ(S): BIO 103 & CHE 175 (or equiv) or Consent) A study of the adverse effects of chemicals on living organisms, including the chemical nature, kinetics, dose-response relationships, metabolism, and mechanisms of action of various toxins and toxicants. PREREQUISITE(S): BIO 103 and CHE 175 (or equivalent) or consent of instructor.

BIO 468
DEVELOPMENTAL TOXICOLOGY (CROSS-LISTED AS BIO 368) The toxic effects of drugs and chemicals, especially on the developing mammalian organism including the human. Laboratory project in experimental induction of birth defects. Lecture-laboratory. Lab fee. Cross-listed as BIO 368

BIO 471
IMMUNOBIOLOGY (CROSS-LISTED AS BIO 370) (LAB FEE) Basic factors governing immune phenomena and antigen antibody reactions. Lecture-laboratory. Lab fee.

BIO 480
CANCER BIOLOGY [PREREQ(S): BIO 250 & BIO 260] [CROSS-LISTED AS BIO 380] This course will explore the cellular and molecular aspects of cancer. Topics will include the pathology and epidemiology of cancer, the origin and spread of cancer, hereditary and familial cancers, cancer associated genes and strategies of cancer therapy. Prerequisites: Bio 250 (Cell Biology) and Bio 260 (Genetics).

BIO 486
INTRODUCTION TO ENDOCRINOLOGY (CROSS-LISTED AS BIO 386) A study of hormones as chemical regulators of development, growth, metabolism, homeostasis, reproduction, response to stress, and behavior; as well as hormone synthesis, chemistry, mechanisms of action, and endocrine gland structure. PREREQUISITE(S): BIO 250, BIO 260, and BIO 310 or consent of instructor.

BIO 488
ADVANCED ENDOCRINOLOGY Analysis of non-hypothalamic-hypophyseal pathways for hormonal regulation of the structure, function and biochemistry of hard tissues, calcium metabolism, and regulation of glucose metabolism. Lecture-seminar. PREREQUISITE(S): BIO 386 or BIO 486, or equivalent.

BIO 490
SPECIAL TOPICS (CROSS-LISTED AS BIO 390) Occasional courses offered at the graduate level. See schedule for current offerings. Two or four quarter hours. PREREQUISITE(S):graduate standing in Biology.

BIO 491
MASTER OF ARTS SEMINAR A seminar course dealing with current readings in the biological sciences. Students will evaluate and interpret these readings both orally and in writing. PREREQUISITE(S):Second year standing in the Master of Arts program

BIO 495
INTRODUCTION TO GRADUATE STUDY Presents the biology faculty and facilities. Various research and teaching methods in biology will be explored. Consideration of such topics as laboratory safety, handling of radioactive chemicals, instrument and equipment use, handling living organisms, library and computer use, etc. Required of all graduate students. Autumn quarter only. Two quarter hours.

BIO 496
RESEARCH Experimental work in selected areas of biology. These studies do not necessarily relate to a thesis. Autumn, Winter, Spring, Summer. Laboratory. Two or four quarter hours. Laboratory fee. PREREQUISITE(S):Approval of the department.

BIO 498
RESEARCH FOR MASTER’S THESIS Original study of a specific biological problem leading to a thesis. Autumn, Winter, Spring, Summer. Laboratory. Two or four quarter hours. Laboratory fee. PREREQUISITE(S):Approval of the department.

BIO 500
BIO 500
SEMINAR (REQUIRED FOR FIRST YEAR GRADUATE STUDENTS) Non-credit. Presentation, throughout the academic year, of their research by practicing scientists from a variety of institutions. Required of first year graduate students.

BIO 501
SEMINAR CONTINUATION (REQUIRED FOR SECOND YEAR GRADUATE STUDENTS) Non-credit. Presentation, throughout the academic year, of their research by practicing scientists from a variety of institutions. Required of second year graduate students.

BIO 502
CANDIDACY CONTINUATION Required of all students who are not registered for regular courses but who occasionally utilize University facilities during completion of course requirements and/or research. Non-credit. Fee.

Business Law

Graduate Course Descriptions • B • Business Law

Business Law

BLW 500
LEGAL AND ETHICAL ENVIRONMENT (PREREQ: GRADUATE STANDING)
This is an introduction to the nature and sources of law, including an analysis of ethical perspectives present in the judicial process. Students will learn how legal and ethical issues influence the decision-making process of managers. Students will explore the relationship between personal values and business decisions, and whether there exists a social responsibility of managers. This course will cover legal concepts relevant to business including basic concepts of public law (constitutional and administrative law) and private laws (sales and product liability). Students will examine business organizations and issues in employment law.
PREREQUISITE: Graduate Standing

BLW 506
LEGAL ASPECTS OF BUSINESS-IN THE MANAGERIAL PROCESS (PREREQ: BLW 500)
In addition to a presentation of general corporate legal theory, stress is placed upon the most critical aspect of administrative legal liability and duties out of which this flows. The internal and external responsibilities of the corporate officer, director or manager as well as those of the members of partnerships are reviewed thoroughly in the light of recent legal developments. PREREQUISITE(S): BLW 500.

BLW 508
LEGAL ASPECTS OF BUSINESS-TOTAL PERSPECTIVE FOR THE EXECUTIVE
Personal and professional legal liability of officers and directors has received considerable attention in recent years, thus highlighting the need for a view of the totality of his or her legal environment. It demands an integrated understanding and planning of the reciprocal aspects of his or her legal, social and ethical responsibilities and rights encountered in his or her office, outside and at home. From the end of the spectrum focusing on possible criminal and civil liabilities to the personal responsibilities of proper estate planning; the "socio-legal world of the executive" is presented. PREREQUISITE(S): BLW 500.

BLW 798
SPECIAL TOPICS
Content and format of this course are variable. Subject matter will be indicated in class schedule.
PREREQUISITE(S): Graduate Standing

BLW 799
INDEPENDENT STUDY (PREREQ: WRITTEN PERMISSION)
Available to graduate students of demonstrated capability for intensive independent work in business law. PREREQUISITE: Written permission.
Chemistry

CHE 412
QUANTUM CHEMISTRY (PREREQUISITE: CHE 215) Quantum chemistry, electronic structure of atoms and molecules, molecular spectroscopy. PREREQUISTE(S):CHE 215. (Cross-listed as CHE 312)

CHE 422
ADVANCED INORGANIC CHEMISTRY I Offered: Winter of even-numbered years.

CHE 424
ADVANCED INORGANIC CHEMISTRY II (PREREQ: CHE 422 ) (OFFERED EVEN-NUMBERED YEARS) Offered: Spring of even-numbered years PREREQUISTE(S):CHE 422

CHE 430
POLYMER SYNTHESIS (OFFERED EVEN-NUMBERED YEARS) Offered: Spring of even-numbered years PREREQUISTE(S):CHE 175 or equivalent.

CHE 432
PHYSICAL CHEMISTRY OF POLYMERS (OFFERED ODD-NUMBERED YEARS) Offered: Spring of odd-numbered years PREREQUISTE(S):CHE 215 or equivalent.

CHE 434
POLYMER CHARACTERIZATION (OFFERED EVEN-NUMBERED YEARS) Offered: Autumn of even numbered years. PREREQUISTE(S):CHE 215 or equivalent.

CHE 440
BIOCHEMISTRY III (CROSS-LISTED AS CHE 344) Offered: Spring (Cross-listed as CHE 344)

CHE 442
ADVANCED BIOCHEMISTRY I In-depth exploration of the structure/function relationship of biomolecules, especially proteins. Offered: Autumn of even-numbered years.

CHE 444
ADVANCED BIOCHEMISTRY II (PREREQ: CHE 442) Discussion and seminars in selected areas. Offered: Winter of odd-numbered years. PREREQUISTE(S):CHE 442.

CHE 450
ADVANCED ORGANIC CHEMISTRY I Offered: Autumn PREREQUISTE(S): CHE 175 and CHE 210.

CHE 452
ADVANCED ORGANIC CHEMISTRY II (PREREQUISITE: CHE 450) Offered: Winter PREREQUISTE(S):CHE 450.

CHE 460
COATINGS TECHNOLOGY I (OFFERED ODD-NUMBERED YEARS) Offered: Spring of odd-numbered years. PREREQUISTE(S):CHE 175 and CHE 215 or equivalent.

CHE 461
COATINGS TECHNOLOGY LABORATORY I (LAB FEE) 2 quarter hours. Laboratory fee: $70.00. Offered: Spring of odd-numbered years. PREREQUISTE(S):CHE 175 and CHE 215, or equivalent.

CHE 462
COATINGS TECHNOLOGY II (OFFERED ODD-NUMBERED YEARS) Offered Autumn of odd-numbered years. PREREQUISTE(S): CHE 175 and CHE 215 or equivalent; and CHE 430.
CHE 463
COATINGS TECHNOLOGY LABORATORY II (FEES) Two quarter hours. Laboratory fee: $70.00. Offered: Autumn of odd-numbered years. PREREQUISITE(S): CHE 175 and CHE 215 or equivalent.

CHE 470
ADVANCED PHYSICAL CHEMISTRY I Thermodynamics. Offered: Autumn of even-numbered years. PREREQUISITE(S): CHE 215 or equivalent.

CHE 472

CHE 478
ADVANCED TOPIC IN PHYSICAL CHEMISTRY This course may be repeated for credit if the topic is different. Offered: by arrangement.

CHE 480
SPECIAL TOPICS IN ANALYTICAL CHEMISTRY This course may be any topic related to chemical analysis, such as mass spectroscopy, electrochemical analysis, principles of chromatography, polymer properties, coatings, sampling methods, design of experiments, etc. This course may be repeated if the topics are different. Offered: Autumn of odd-numbered years PREREQUISITE(S): CHE 261.

CHE 490
STATISTICAL ANALYSIS OF DATA (OFFERED ODD-NUMBERED YEARS) This course introduces students to statistical methods that can be used in error analysis of experimental data. Computers are used to apply concepts discussed in lecture to actual data sets. Offered: Winter of even-numbered years. Familiarity with Excel or a modern programming language is strongly recommended. (Cross-listed with CHE 390)

CHE 494
SEMINAR Formal and/or informal discussion on topical subjects in chemistry. Variable credit. This course may be repeated for credit. PREREQUISITE(S): Consent

CHE 496
LIBRARY RESEARCH (ADVISOR CONSENT REQUIRED) Students doing library research must register for this course. Variable credit. This course may be repeated for credit.

CHE 497
RESEARCH Students doing laboratory research must register for this course. Variable credit. Laboratory fee: $70.00. Offered every quarter. This course may be repeated for credit. PREREQUISITE(S): Permission of advisor.

CHE 500
INDEPENDENT STUDY Variable credit. Offered: by arrangement. This course may be repeated for credit. PREREQUISITE(S): Permission of chair.

CHE 502
CANDIDACY CONTINUATION Required of all students who are not registered for regular courses but who occasionally utilize University facilities during completion of course requirements and/or research. Non-credit. $70.00 per quarter.
Communication

Graduate Course Descriptions

Communication

CMN 524
PERSUASION This course introduces students to theories of persuasive communication used in public relations and advertising. Persuasion will be examined at interpersonal, group, and societal levels. Students also will consider the ethical considerations important in any discussion of persuasive communication.

CMN 564
MEDIATED COMMUNICATION Mediated Communication

CMN 580
INTRODUCTION TO ACADEMIC WRITING This course prepares incoming graduate students with basic academic writing skills required at the graduate level. It covers an introduction to library research, critical reading and writing, essay writing mechanics, grammar and punctuation, MLA and APA documentation. The class will be conducted with some lectures and mostly discussions on esoteric writing issues related specifically to graduate students.

CMN 584
ADVANCED ACADEMIC WRITING This course addresses academic writing concerns for graduate students who are preparing to write their theses. The course will combine individualized conferencing with group discussion. The students will use their own previous work(s) as an investigative tool in understanding both their individual writing needs as well as the theoretical issues which exist in writing a master's thesis. The course will also examine examples of completed theses as models for the student's own final work. Student should submit a paper to the instructor as soon after registration as possible, but certainly before the first night of class.

CMN 590
COMMUNICATION PRACTICUM IN GROUP FACILITATION

CMN 591
INTERNSHIP In consultation with the graduate advisor and the internship director, students design a field experience to be undertaken under the supervision of a project director in the field. The internship may be connected to a question derived from coursework, related to the student's thesis topic, or based on a personal research objective. It may include appropriate experiences determined by the field supervisor as well as the student's individual goals.

CMN 598
SPECIAL TOPICS IN CORPORATE COMMUNICATION This course addresses additional topics in corporate communication. Such offerings have included: Organizational assimilation - the process through which newcomers in organizations become enculturated; Power and resistance in Organizations - which explores the use and abuse of power in organizations as well as the tactics individuals use to resist dominant power structures; and Communication and Customer Service.

CMN 599
FINAL PROJECT/THESIS RESEARCH Students who select the Thesis or Project Option must take this course
while they write their thesis or finish their project. Students work closely with their chosen advisor in completing their thesis/project.

CMN 602
CANDIDACY CONTINUATION Required of all students who are not registered for regular courses but who occasionally utilize University facilities during completion of course requirements and/or research. Non-credit. $40.00 per quarter.

Communication Studies

Graduate Course Descriptions Communication Studies

Communications Studies

CMNS 501
COMMUNICATION IN CULTURAL CONTEXTS Analyzes theories of the interaction between culture and communication. Investigates the facets of culture that influence communication in a variety of settings, ranging from corporate and educational realms to social and familial domains, particularly among people from different cultures. Examines how communication can serve to bridge gaps in a multicultural setting. Formerly CMN 501.

CMNS 502
INTERCULTURAL COMMUNICATION THEORIES The course provides an overview of different theories of intercultural communication. The course also prepares students to conduct pure theoretical inquiry and theory-driven research into intercultural communication practices, processes, and patterns. Formerly CMN 502

CMNS 503
COMMUNICATION AND CULTURES IN TRANSITION Explores the role of communication in facilitating and inducing cultural change on a national and international scale. Examines the interaction between culture and communication and the impact of interaction on cultural transition and transformation in contemporary societies. The course takes a case study approach to one international culture (e.g., China, India, Latin American countries, Russia, Saudi Arabia) or of social issues and social movements in the United States (e.g., women's liberation, civil rights, pop cultures). Formerly CMN 503.

CMNS 504
LANGUAGE, THOUGHT AND CULTURE This course examines the interrelationship among language, thought, and culture. Reviews and critiques theories and research of how language or the use of symbols reflects culture and shapes reality for certain cultural/ethnic groups and organizations. Explores how language influences thought and action of the collective and of individuals in social, political and organizational settings. Formerly CMN 504.

CMNS 509
SPECIAL TOPICS IN MULTICULTURAL COMMUNICATION Course covers a variety of topics that address theories about multicultural communication such as culture, gender, sexual orientation, race, and ethnicity. Formerly CMN 509.

CMNS 521
LANGUAGE AND POWER Reviews the role of language and representation as social power. Topics include rhetorical form as strategy, semiotic analysis of power relations, language and the construction of subjectivity, and discursive structures of empowerment. Formerly CMN 521

CMNS 522
RHETORICAL CONSTRUCTIONS OF IDENTITY Focuses on the rhetorical theories and practices through which various cultural groups within the US. construct a sense of identity. The course examines different rhetorical forms and strategies through an analysis of the rhetorical situations, texts and artifacts of various cultural groups. Formerly CMN 522
CMNS 523
GENDERED COMMUNICATION Examines research into the ways the various aspects of communication are affected by and affect the social construction of gender. Topics covered include language and language usage differences, interaction patterns and perceptions of the sexes generated through language and communication. (Cross-listed as MLS 445/WMS 440). Formerly CMN 523

CMNS 525
COMPARATIVE MANAGEMENT COMMUNICATION Examines and contrasts the management philosophies of different cultures around the world, paying special attention to how European and Asian organizational practices influence structure, culture and communication within American corporations. Formerly CMN 525

CMNS 526
COMMUNICATION IN ORGANIZATIONAL ASSIMILATION This class introduces students to the processes by which individuals join, become a part of, and exit organizations. The course structure closely parallels the popular organizational assimilation stage model outlined below, but takes an explicit multicultural perspective throughout. Specifically, in addition to discussing the traditional body of work on this subject, which often ignores issues of diversity, this course examines the organizational assimilation experiences for women, gays/lesbians, and ethnic minorities in the United States. Revealed here are some of the subtle and not-so-subtle ways which employees can be discriminated against at different stages of the assimilation process. Formerly CMN 526

CMNS 527
ASSESSMENT AND INTERVENTION IN ORGANIZATIONS Organizations are symbolic realities constructed by humans in communication. In other words, organizations are creations, and both organizational members and observers need to comprehend them as such. Communication 527 is devoted to preparing you to become communication professionals able to understand organizations through the analysis of organizational patterns of meanings and expectations. Communication professionals help organizations to improve communication by (1) identifying differences between actual and desired conditions of communication and (2) devising ways to close the gap between actual and desired states. The first function involves organizational communication evaluation (gathering, analyzing, and interpreting data about an organization’s communication processes). The second function is referred to as intervention (actions taken to improve organization communication). People who perform organizational communication evaluation and intervention may be members of the organization or outside agents brought in to perform specific projects. This class will on the role of the communication professional in the maintenance and change of organizational communication functions, structures, and the communication processes that occur at various systems levels, including dyads, groups, intercultural and multicultural relations, and organization-wide network processes. Formerly CMN 527

CMNS 529
SPECIAL TOPICS IN ORGANIZATIONAL & MULTICULTURAL COMMUNICATION This course varies on topics related to communication theories, concepts, and practices that address both organizational and multicultural communication. Formerly CMN 529

CMNS 541
CORPORATE COMMUNICATION AND CULTURE (CROSS-LISTED AS MPS 501) The central purpose of this course is to introduce students to the role communication plays in organizational life. Throughout the quarter, attention will be devoted to examining the various theoretical perspectives from which organizational communication can be viewed, and selectively surveying major content topics and current issues in the organizational communication literature. (Cross-listed with MPS 501). Formerly CMN 541.

CMNS 542
MULTICULTURAL COMMUNICATION IN THE WORKPLACE Multicultural issues affect the communication of organizational members on a day-to-day basis. This course examines multicultural issues in professional settings. It provides students with knowledge about co-cultural communication patterns, which will enhance their own ability to interact. Further, it demonstrates how multicultural communication can be an organizational asset. Formerly CMN 542

CMNS 543
COMMUNICATION AND ORGANIZATIONAL CHANGE Change in an organization implies change in communicative processes at the individual, dyadic, group and systemic levels. Communication variables that define patterns of interaction within these organizational contexts will be examined as well as key issues that might cause communication difficulties. Formerly CMN 543
POLITICS AND POWER IN ORGANIZATIONS Examines political activities sanctioned and encouraged by organizations, subjective political activities initiated by individuals, bases of power within organizations (influence strategies), living and working with organizational politics (coping mechanisms). Formerly CMN 544

COMMUNICATION AND TECHNOLOGY Communication and Technology explores the process through which technological and social systems co-create or invent each other. As such, this course not only examines the role that new communication technologies play in shaping our social systems and the organizations within them, but also looks at how social, cultural, economic and legal contexts influence the development and emergence of these technologies. Formerly CMN 545

BUSINESS AND PROFESSIONAL COMMUNICATION Explores presentational skills, interviewing skills, bargaining and negotiating skills, and small group communication skills. Surveys topics critical to effective managerial communication in a corporate environment. (Cross-listed with PRAD 510). Formerly CMN 546

COMMUNICATION IN CUSTOMER SERVICE America's economy is currently driven by service industries. In this course we will explore the communicative dimensions of customer service. By reviewing the theory and research of customer service and exploring the research methods available for assessing service, students will be both better able to appreciate the service process and diagnose and change ineffective service systems. Formerly CMN 547

TEAMS AND LEADERSHIP Modern organizations are increasingly interested in shifting their organizational structures toward the goal of creating self-managed work teams. Therefore, the current communication graduate greatly benefits from knowledge and experience with two interdependent aspects of group dynamics: decision-making under conditions of uncertainty, and the philosophy and practice of developing groups into self-managed teams. The December quarter version of this course will combine a relatively brief period of lecture/discussion with a teamwork intensive action learning component towards the goal of making each student competent to either spearhead a change to self-managed work teams in their own organization (if called upon to do so), or to understand and weather this change in work mode without stress. Formerly CMN 548

SPECIAL TOPICS IN ORGANIZATIONAL COMMUNICATION Course covers a variety of topics that address theories about organizational communication such as group processes, conflict management, and leadership. Formerly CMN 549

INTERNATIONAL MEDIA Examines the political economy of the global media, with attention to institutional, historical, and contemporary questions of ownership and program content, as well as representations by the US. commercial news media of the foreign other and the representation of Western culture and institutional life in non-Western contexts. Includes examination of issues in the mass media now debated within the international community, pursuing questions about the New World Information Order, the international marketplace of images, cultural imperialism and national culture, and types of programming aimed at an international audience. Formerly CMN 561.

MULTICULTURAL MEDIA REPRESENTATIONS This course examines both representational practices and theories that are informed by multicultural perspectives. It explores ways in which scholars and media practitioners have dealt with the epistemological problem of “difference” The course may take up topics such as race, class, age, and sexual orientation as categories of difference that have informed and continue to inform academic inquiries. The course also looks at historical and/or contemporary media texts, and analyzes them through these methods. Formerly CMN 563.

QUALITATIVE RESEARCH METHODS Introduction to qualitative approaches to research in communication. The course includes a systematic review and application of ethnography, unstructured interviewing, personal document analysis, historical research, and critical practice. Addresses the rationale, method, and theory of each qualitative approach to research in addition to placing emphasis upon data collection and interpretation.
CMNS 582
QUANTITATIVE RESEARCH METHODS Introduces students to quantitative approaches to research and basic statistics. Topics include research design and control, survey construction, measurement and other general research issues, nonparametric statistics, correlation, the t-test and analysis of variance. Formerly CMN 582.

CMNS 592
INDEPENDENT STUDY (PREREQUISITE: APPROVAL OF INSTRUCTOR AND DEPARTMENT CHAIR) Students will be guided in the development of a special research project that furthers their collaboration with an instructor and produces a report that demonstrates their mastery of critical content and competencies. The independent study option is intended for students who have demonstrated a mastery of course content, who would benefit from a sustained, focused collaboration with a relevant faculty member. Formerly CMN 592.

Comp, Info and Network Security

Graduate Course Descriptions

Comp, Info and Network Security

CNS 450
COMPUTER FORENSICS This course focuses on the forensic analysis of data from computer systems. This course covers: preservation and interpretation of evidence; file systems, e.g., Ext3 and NTFS; storage behavior of applications; forensic tools; tool development and automation; indexing documents; reporting and testimony. Optional topics include: anti forensics; data mining; data recovery; intrusion detection; software forensics. PREREQUISITES: (CSC212 or CSC224) and (CSC373 or CSC383 or instructor consent)

CNS 477
LEGAL ISSUES IN INFORMATION ASSURANCE This graduate course is a survey of legal issues arising under information security and control frameworks such as COBIT and ISO17799. Topics include the basics of trademark, copyright, patent and trade secrets and protection strategies for each of them; software licensing issues; data privacy under state, federal and international law; evidence and digital forensic practices; ethics; the Computer Fraud and Abuse Act's boundaries for illegal access to computers; electronic surveillance and cyber traps; information security measures mandated by select federal statutes (HIPAA, Gramm-Leach-Bliley and Sarbanes-Oxley); and practical techniques on how to find and keep abreast of legal issues affecting information security.

CNS 594
COMPUTER INFORMATION AND NETWORK SECURITY CAPSTONE Design, setup and configuration of realistic enterprise computing and networking environments. Securing the infrastructure and integration of different services and technology in efficient, secured and redundant manners. Technologies will include: open-source and commercial products, firewalls, Virtual Private Networks (VPNs), authentication systems, Intrusion Detection Systems (IDS), advanced routing mechanisms (OSPF, BGP, IS-IS), highly redundant and robust networking. PREREQUISITE(S): TDC 477 or TDC 572

CNS 599
TOPICS IN COMPUTER, INFORMATION AND NETWORK SECURITY Independent study form required. PREREQUISITE(S): Consent of instructor.

Composition
Composition

COM 400
ANALYTICAL TECHNIQUES (4 credits) Investigation of various analytical approaches to music syntax, structure, style and texture (including timbral and vocal or instrumental configurations) as exhibited in representative compositions from many historical periods.

COM 415
COMPOSITION The study of advanced compositional issues at the graduate level which will culminate in a final composition project.

COM 416
COMPUTER ASSISTED COMPOSITION (4 credits) The purpose of this course is to offer composition majors an introduction to the use of computers in the implementation of generative and formal strategies for music composition.

COM 421
SEMINAR IN COMPOSITION

COM 441
COMPOSITION I (4 credits) This course series will focus on advanced compositional issues at the graduate level and culminate in a final composition project.

COM 442
COMPOSITION II (4 credits) This course series will focus on advanced compositional issues at the graduate level and culminate in a final composition project.

COM 443
COMPOSITION III (4 credits) This course series will focus on advanced compositional issues at the graduate level and culminate in a final composition project.

COM 444
PROBLEMS, PROCEDURES AND TECHNIQUES IN THE PERFORMANCE OF NEW MUSIC (4 credits) By means of discussion, performance and notation analysis and, when possible, performance itself, this course will explore the performance challenges of innovative notation and the new complexities of traditional notation as a means of enlarging the student's technical and poetic capacities.

COM 445
TWENTIETH CENTURY MUSIC TOPICS (4 credits) (Preferably taken after COM 444) The subject matter of this course will change from year to year depending upon faculty availability and student interest. Possible subjects could include, among others: An in-depth study of a 20th-century composer or "school" of composers; a study of 20th-century aesthetics; a study of 20th-century theories; a study of music sociology of the 20th-century; a study of new trends such as multi-media, computer music, etc.

COM 498
INDEPENDENT STUDY

COM 499
THESIS COMPOSITION

Curriculum Studies
CS 402
NUMBER AND OPERATIONS: BUILDING A FOUNDATION FOR ALGEBRAIC THINKING An introduction to developing algebraic thinking in K-5th grade students through the use of numbers and operations. Students will investigate the whole number and rational number systems, the relationships of numbers, and the meaning and relationship of operations. These concepts will be appropriately extended to algebraic reasoning in a collaborative problem-solving environment. Assessing student learning, appropriate use of technology and literature connections are integral components of the course. Exemplary mathematics programs and assessment materials will be used throughout the course.

CS 403
GEOMETRY FOR PRIMARY TEACHERS An introduction to geometry for teachers in K-5th grade. It will engage students in the construction, description, and analysis of geometric objects. Emphasis throughout will be on careful description, the development of geometric language, informal reasoning, and reflection on learning. Topics will include: angles, triangles (including the Pythagorean theorem), properties of polygons, projections, congruence, similarity, and measurement of length, area, and volume. Exemplary mathematics programs and assessment materials will be used throughout the course. Exemplary mathematics programs and assessment materials will be used throughout the course.

CS 404
MATHEMATICAL AND PEDAGOGICAL ISSUES FOR PRIMARY TEACHERS This course is designed to help K-5 teachers make more informed and appropriate decisions about curriculum materials and pedagogical strategies, with special emphasis on how choices are related to what we know from research about how children develop mathematical content knowledge. We will examine the historic roots of recommendations for best practices and general theories about child development. Then we will analyse their impact on a variety of curriculum materials for teaching K-5 mathematics including Everyday Mathematics and Trailblazers and consider the theoretical and practical influences of these texts on children's learning of mathematics.

CS 408
NUMBER SYSTEMS FOR MIDDLE SCHOOL TEACHERS An investigation of topics in number theory and the foundations of the real number system. Content includes: estimation, approximation, and number sense; numeration; number patterns (e.g., square, triangular, oblong, or tetrahedral numbers); prime and composite numbers and divisibility; rational numbers, ratio, and proportion; irrationals, transcendentals, and the construction of the real number system; and countability and orders of infinity.

CS 409
QUANTITATIVE REASONING FOR TEACHERS In order to interpret and change our physical and social world, it is necessary to understand quantitative reasoning. This course will analyze, critique, and develop quantitative arguments in numerical, graphical, and verbal form. A variety of appropriate technology will be introduced and used throughout the course. Topics will include: uses of numbers; scaling and measurement; functions and graphs; linear, inversely proportional, and exponential relationships; distributions and their descriptive measures; variability and the normal curve; correlation and causation; probability; and statistical inference. Exemplary materials from curriculum projects will be included.

CS 410
THE PSYCHOLOGY OF LEARNING MATHEMATICS AND SCIENCE

CS 411
SCIENCE PROCESSES I This course will use common, everyday materials to study naturally occurring phenomena. Students will be expected to learn about the processes and content of science by becoming actively involved in doing science. Activities will cover topics in biology, chemistry and physics.

CS 412
SCIENCE PROCESSES II A continuation of Science Processes I with the same emphasis on active involvement and the processes of scientific inquiry. Naturally occurring phenomena which are not experienced in everyday living will be the objects of study.

CS 413
GEOMETRY FOR MIDDLE SCHOOL TEACHERS This course is an introduction to geometry which will engage students in the construction, description, and analysis of geometric objects. Students will start by building
three dimensional objects which will then be used to generate questions and hypotheses. These will lead to more abstract concepts in two as well as in three dimensions. Topics will include: properties of polygons and polyhedra; nets and projections; congruence and similarity; the Pythagorean theorem; perimeter, area, and volume. Emphasis throughout will be on informal reasoning and reflection on learning.

CS 414
ALGEBRAIC MODELING FOR MIDDLE SCHOOL TEACHERS This course offers students opportunities to investigate a variety of real-world situations, in collaboration with others, in order to enhance their understanding of algebra. For each situation, students will be expected to use appropriate technology to analyze the situation, develop mathematical models of the situation, check and verify these models, and revise them as necessary. Mathematical topics will include: integers and their properties; algebraic expressions, including polynomial, rational, and radical expressions; factoring; linear, quadratic, and absolute value equations and inequalities; functions, coordinate systems, graphs, and rates of change; and the interpretation of graphs and systems of linear equations. Exemplary materials from national curriculum projects and texts (such as Connected Mathematics or Mathematics) will be included as the starting point for investigations.

CS 420
COMPUTERS IN EDUCATION An introduction to educational computing for educators and administrators who have no previous computer experience. Students will use e-mail, list serves, discussion groups, and the World Wide Web to learn about technology and how to integrate it into curriculum. The course includes: an overview of hardware and educational software; an introduction to basic concepts in computing and computer usage; and discussion of critical issues in computer usage including the likely social and organizational consequences of the increased use of computers in schools. Hands-on experience with a variety of commonly used hardware and educational software will be provided.

CS 421
COMPUTER PROGRAMMING WITH LOGO An introduction to computer programming using Logo, a powerful, yet easy-to-learn language that both adults and children can use to express their ideas. This course covers the programming concepts needed for turtle graphics, including procedure definition, use of variables, file management, structured programming, and tail-recursion. Extensive hands-on experience will be provided, and classroom applications (especially for students in grades 3 through 8) will be discussed. No previous computer experience is required.

CS 422
INTERMEDIATE LOGO PROGRAMMING Intermediate Logo Programming

CS 423
COMPUTER AND CALCULATOR SCIENCE LABS This course examines issues critical for integrating technology into mathematics and science classrooms using technology based labs. It will demonstrate how computers and calculators can be used to measure force, light, pressure, temperature, velocity, acceleration, heart rate, pH and a variety of other qualities from the observable world. After learning how to use probes to measure phenomena, participants will then design activities and lesson plans for classroom use. Attention will also be given to using technology to revitalize mathematics and science education. The course is ideal for elementary and secondary teachers looking for meaningful ways to integrate mathematics and science.

CS 424
COMPUTERS AND WRITING Computers And Writing

CS 425
WORKSHOP FOR IN-SERVICE TEACHERS Workshop for In-Service Teachers. Topics of particular interest and concern to educators will be presented in a high-involvement seminar format.

CS 430
TEACHING CONSUMER EDUCATION Teaching Consumer Education

CS 445
INTEGRATING ECONOMICS IN THE HIGH SCHOOL CURRICULUM (CROSS LISTED ECO 445) Integrating Economics In The High School Curriculum (cross Listed Eco 445)

CS 447
TEACHING WRITING IN THE ELEMENTARY AND MIDDLE SCHOOL This course is designed to provide pre- and in-service teachers with the opportunity to study and reflect upon developmental and instructional aspects of
in-service teachers with the opportunity to study and reflect upon developmental and instructional aspects of learning and teaching writing in elementary and middle schools. Students should leave with the theoretical and practices knowledge needed to develop a coherent and developmentally appropriate writing curriculum that is an integral part of classroom practices. They will have an opportunity to experience a variety of instructional strategies as they work with elementary and middle school students as they engage themselves in a variety of writing experiences. This course includes discussion and exploration of the uses of technology in the teaching and writing and also addresses the needs of special populations in relation to the development and assessment of written language skills.

CS 450
USING TECHNOLOGY IN MIDDLE SCHOOL MATHEMATICS This course is an introduction to the uses of technology-especially computers, calculators, and software-as tools for investigating significant mathematical ideas. The emphasis will be on mathematical discovery and invention in order to enhance students' mathematical intuition and understanding of fundamental mathematical concepts: geometry will be the primary area of investigation, although some topics in number theory and algebra will be included. In addition to engaging in mathematical inquiry, this course will discuss how technology can support the reform of mathematics teaching and will develop a framework for evaluating mathematics software.

CS 451
TEACHING, LEARNING AND ASSESSING MIDDLE SCHOOL MATHEMATICS I This course will examine, in an interconnected way, the following themes: 1) how children learn mathematics with conceptual understanding; 2) how to teach mathematics so that children learn with understanding; 3) how to assess children's mathematical knowledge to inform instruction and determine their growth, and 4) the nature and content of innovative curriculum projects designed to teach mathematics for conceptual understanding. Exemplary curriculum materials will be used throughout.

CS 452
TEACHING, LEARNING AND ASSESSING MIDDLE SCHOOL MATHEMATICS II A continuation of CS 451.

CS 457
EXAMINING, LEARNING AND TEACHING: MATHEMATICS In this seminar, participants construct meaningful connections between personally becoming a learner of mathematics (who can solve problems, reason mathematically, communicate findings and thinking, and make connections) and learning to teach mathematics so that diverse groups of students can develop the same kinds of skills. Through the interplay of analyzing narratives about their own classroom experiences and literature or research about others' experiences, participants will examine the impact of developmental and interpersonal experiences on learning and teaching mathematics.

CS 458
RESTRUCTURING MATHEMATICS EDUCATION IN SCHOOLS This seminar will move teachers beyond their own classrooms and help them to become advocates for reform of mathematics education at the elementary and middle school levels. It will ask them to develop compelling arguments for reform in mathematics education in their schools and position them as persuaders who can negotiate their way around a building. It will involve readings and discussion on school restructuring in general as well as mathematics education in particular. After collecting necessary survival data, identifying support systems, and analyzing existing conditions and power relationships within a particular school, each participant will be expected to develop a comprehensive plan for restructuring mathematics education which confronts these realities. To the extent possible, students, colleagues, parents, and community members should all have input and, where appropriate, sign off on the plan.

CS 460
LEARNING IN A TECHNOLOGY-SUPPORTED CLASSROOM An examination of current theories about instructional technology and of recent literature in the field. Students will become familiar with particular technology appropriate for their areas of interest and will learn to evaluate this software for a variety of instructional purposes. The course includes: frameworks for classifying educational uses of the technology; an analysis of selected research on educational technology; theories and practices of using technology in classrooms; and the advantages and disadvantages of distance learning. Emphasis throughout will be on why and how technology can be used to enhance the learning process. [Assumes a background equivalent to that provided by CS 420].

CS 461
LITERACY PROCESSES AND PRACTICES Foundational theoretical perspectives and practices for teaching and learning language and literacy in a diverse, changing, and political world. Background of knowledge in the area of learning and exposure to the controversies that surround the teaching of literacy will be used to develop an understanding of literacy learning in action. Students will be invited to participate in the current
develop an understanding of literacy learning in action. Students will be invited to participate in the current conversations around literacy learning and teaching in order to inform their everyday curricular decisions.

CS 463
ASSESSMENT, DIAGNOSIS, AND PLANNING: EMERGENT AND DEVELOPMENT READING Assessment, diagnosis and instructional planning for early and emergent learners. Building on a knowledge base of emergent reading processes and literacy practices, teachers will explore the ways in which young learners construct meaning and use language purposefully in their unique social worlds, even before beginning school. Participants in this course will learn to use performance based assessments as well as more formal standardized measures of achievement to support emerging and struggling readers with appropriate materials and theoretically sound instructional practices. (Pre-requisite: CS 461 or equivalent.)

CS 464
ASSESSMENT, DIAGNOSIS, AND PLANNING: MIDDLE SCHOOL AND ADOLESCENT READING Assessment, diagnosis and instructional planning for middle school students. Building on a knowledge base of reading processes and literacy practices, teachers will explore the ways in which students construct meaning and use language purposefully in their unique social worlds. Participants in this course will learn to use performance based assessments as well as more formal standardized measures of achievement to support middle school and adolescent readers with appropriate materials and theoretically sound instructional practices. (Pre-requisite: CS 461 or equivalent.)

CS 470
TEACHERS AS LEADERS Develops skills in designing and implementing collaborative and consultative approaches to instruction; enhances skills needed to communicate effectively with other educators, administrators, and parents. Explores shared decision-making, school restructuring, school-based management, and peer coaching and mentoring.

CS 471
DIVERSITY IN THE CLASSROOM Examines issues related to diversity that result when students from diverse socioeconomic, cultural, linguistic, and academic backgrounds are in the same classroom. Explores the impact of inclusion, ESL, bilingual, and bicultural programs on instruction. Emphasis on developing strategies to meet individual student needs within the regular classroom.

CS 472
ETHICS, CURRICULUM AND SOCIAL CHANGE Explores some major issues impacting curriculum, including cultural and socioeconomic factors, legal issues, conflicting values, pressures for assessment, and the push to include technology. Examines the historical development and current state of education in the U.S. as compared to education in other cultures. Emphasis on ways that educators can work as change agents within the competing demands of these forces.

CS 473
ASSESSMENT Explores current theory and practice regarding alternate forms of assessment, including formal, standardized, and informal tests and inventories; selection, evaluation, and interpretation of tests used in educational settings; portfolio assessment, video performances, and presentations; preparation and use of teacher-made tests; evaluating outcomes; and utilizing data to improve instruction. The critical examination of multiple perspectives of assessment theories, policies and practices center around the emphasis on developing strategies to evaluate student progress.

CS 481
THE STUDY OF TEACHERS AND TEACHING A selective survey and analysis of research on teachers and teaching. Particular emphasis will be placed on the assumptions which are built into various forms of research and the effect these assumptions have on how results should be interpreted and used in supervision and curriculum development. Each student will be expected to become familiar with alternative ways of studying teachers and the teaching process in his/her area of expertise. While many school settings will be utilized because of the many studies done in this area, research in non-school settings will be given a good deal of emphasis.

CS 482
THE HISTORY OF CURRICULUM PRACTICE A survey of trends and movements in curriculum practice. Particular emphasis will be placed on the recurrent nature of curriculum practices and the reasons for this. The underlying models of curriculum practice in their historical settings will be considered as possible methods for modern day needs and the assets and liabilities of those models will be used in viewing modern day practices.
CS 484
MULTIMEDIA MATERIALS PRODUCTION This course will analyze the role of multimedia materials in instruction. A variety of media will be explored (including software, the Internet, audio, video, slides and film). Students will be expected to manipulate a variety of images and produce sample materials for critique and analysis. The primary focus will be on enhancing learning in elementary and secondary schools. PREREQUISITE(S): CS 460 or equivalent.

CS 485
CURRICULUM/PROGRAM EVALUATION Evaluation is essential for curriculum/program development and implementation. Hence, understanding evaluation methods, technologies, and quality criteria is particularly relevant to educational leaders, curriculum/program designers, and technology specialists. In this course, students will critically examine a variety of current evaluation models, instruments, and resources. Students will also conduct a comprehensive analysis of a significant evaluation study relevant to their specific professional interest. Registration is restricted to students in Advanced Master's programs.

CS 486
PRACTICUM: CONDUCTING CURRICULUM/PROGRAM EVALUATION (PREREQUISITE: CS 485) Practicum: Conducting Curriculum/Program Evaluation (prerequisite: Cs 485)

CS 487
INTRODUCTION TO CURRICULUM DELIBERATION An introduction to systematic and collaborative deliberation on curriculum problems. A pattern for deliberation (including situation analysis, problem discrimination and formulation, development of alternative courses of action, and anticipation of consequences) will be developed and exemplified. This pattern will be contrasted with other descriptions of curriculum planning. Each student will complete a project which describes his/her systematic formulation of a curriculum problem and a plan of action for resolving it.

CS 488
DESIGNING AND INTERPRETING CURRICULUM An examination of the underlying structures of diverse curricula and of the processes by which they are developed and implemented. Principles and methods for organizing subject matter will be analyzed. The translation of subject matter into curriculum will be examined with particular attention to the assumptions about subject matter built into texts and other curricular materials. Students will analyze curriculum guides and materials to uncover their underlying structures and their explicit and implicit assumptions about subject matter.

CS 489
DEVELOPING CRITICAL AND CREATIVE THINKING In this course students will analyze a wide variety of instructional strategies and curriculum models and apply them to their own school settings. Teacher-centered, student-centered, and computer strategies will be introduced which can be applied to a wide range of ability, grade levels, and subject areas. The emphasis will be on models which call upon students to use and thereby develop critical and creative thinking skills, inquiry, independent research skills, problem solving abilities and communication skills.

CS 501
CURRICULUM THEORIZING: MULTIPLE LENSES Curriculum Theorizing: Multiple Lenses

CS 579
RESEARCH IN THE TEACHING OF READING In this course, students will explore and analyze current literacy research through the critical lenses of educational practitioners. Students will: identify meaningful questions about literacy practices in their classrooms and schools; create a plan for addressing the identified research question(s); collect and analyze data relevant to the research question(s); and organize and present the research findings. This inquiry project, or an extension of it, may subsequently become the basis for the student's Master's paper or thesis. (Pre-requisites: CS 461 or equivalent and the assessment and practice required for endorsement.)

CS 580
RESEARCH SEMINAR IN CURRICULUM STUDIES (PREREQUISITE(S): SIX GRAD COURSE INCL SCG 410 OR EQUIVALENT) This course is designed to help graduate students in Curriculum Studies through the difficult process of planning, organizing, drafting, and revising their Master's papers. Students will be expected to complete a literature review and to develop a strong proposal for an integrative paper as a prelude to selecting an advisor for their Master's papers. For M.Ed. students only. PREREQUISITE(S): Six graduate courses including SCG 410 or equivalent.
CS 581
INTERNSHIP: SOLVING OPERATING PROBLEMS Cooperatively arranged experiences in a school or community setting on a full or part time basis under the direct supervision of a person with acknowledged expertise in technology in technology. The intern will help to solve problems, resolve operational conflicts, provide hardware and software support, and assist teachers in their efforts to provide meaningful learning experiences for students. PREREQUISITE(S): CS 460 or equivalent and permission of a faculty advisor.

CS 582
PRACTICUM IN CURRICULUM STUDIES (PREREQUISITE: PERMISSION OF ADVISOR) The student is provided directed experiences in decision-making for curriculum, participation and leadership in curriculum committee activities, planning, and management of learning resource centers and other aspects of curriculum development in a variety of educational settings. PREREQUISITE(S): Permission of program advisor.

CS 583
UTILIZING MICROCOMPUTERS IN CURRICULUM DEVELOPMENT Utilizing microcomputers in curriculum development

CS 584
PRACTICUM: DEVELOPING COMPUTER BASED CURRICULUM MATERIALS Practicum: developing computer based curriculum materials

CS 587
PARTICIPANT RESEARCH IN SCHOOLS: MATHEMATICS EDUCATION This course will help teachers conduct research in their own school community, thus helping to improve the mathematics teaching and learning in the school. It will focus on doing action/participant research by bringing together the knowledge bases of multicultural education, teaching for diversity, and mathematics education. Each student will be asked to design, develop, conduct and analyze a (potentially collaborative) action research project in his or her own classroom or school and share the analysis of this project with the seminar group. This project, or an extension of it, may subsequently become the student's Master's paper or thesis.

CS 588
INDEPENDENT STUDY IN CURRICULUM STUDIES Independent Study in Curriculum Studies

CS 589
THESIS RESEARCH IN CURRICULUM STUDIES (PREREQUISITE(S): SCG 410 AND APPROVED THESIS PROPOSAL) A student writing a thesis registers for this course for four quarter hours of credit. Where the thesis research and the writing of the thesis itself are prolonged beyond the usual time, the program advisor may require the student to register for additional credit. PREREQUISITE(S): SCG 410 and approved thesis proposal.

CS 591
CURRICULUM THEORIZING: MULTIPLE LENSES This course examines diverse curriculum discourses, historical as well as contemporary, within a broader context of issues related to education and schooling. It is designed to engage students critically in the study of curricular frameworks, their assumptions, values, and implications for education, schooling, teaching and learning. Major topics include frameworks for defining and conceptualizing curriculum and curricular visions; social, political, and historical contexts of curriculum construction; issues of gender, race, class, and the media; and the curriculum as socially constructed and historically contextualized discourse(s) about what is and what should be taught. Particular content areas will be used as examples.

CS 600
REGISTERED STUDENT IN GOOD STANDING (0 credit) This registration is required of all students who are not enrolled in a course but are completing course requirements and/or research. It provides access to University facilities. $50 per quarter.

CS 601
WORKSHOP: ALTERNATIVE APPROACHES TO EARLY CHILDHOOD EDUCATION Workshop: alternative approaches to early childhood education

CS 606
REVIEW OF LITERATURE Review of Literature. This paper will give students the opportunity to develop and demonstrate written competence in a subfield of their disciplines and to enhance life-long learning. Specifically, they will broaden their knowledge base and inform themselves about a topic, issue, theory, etc., reviewing and synthesizing existing literature. To do so, students will need a variety of bibliographic skills
reviewing and synthesizing existing literature. To do so, students will need a variety of bibliographic skills including searching databases. (See the student handbook for additional information about completing Master's papers.)

CS 607 INTEGRATIVE PAPER Integrative Paper. Non-credit. Students will observe and/or participate in the reciprocal interaction of theory and practice, by investigating actual practice in the field as it relates to theory. This might take the form of investigating how a particular theory is applied in the field, developing a practical application of a theory, or, conversely, developing/refining a theory based on investigations made in the field. (See the student handbook for additional information about completing Master's papers.)

CS 608 CAPSTONE IN CURRICULUM STUDIES Culminating experience(s) that help(s) students acquire the qualities of professionalism and leadership needed to play a significant role in one's professional education community. Students are expected to situate and understand educational issues in a larger context; keep current in and be able to organize and present a body of research on an education-related question; connect research with practical, professional activity; demonstrate mastery of a sub-field of a discipline; write in a format that meets accepted scholarly criteria and participate in an ongoing professional conversation. A final product such as master's paper(s), comprehensive exam, or collection of professional work products is required.

CS 613 NEGOTIATING CURRICULUM IN THE CLASSROOM Negotiating Curriculum In The Classroom

CS 700 REGISTERED DOCTORAL STUDENT IN GOOD STANDING Non-credit. This registration is required of all doctoral students who are not enrolled in a doctoral course, but are completing course requirements and/or dissertation research. It provides access to University facilities.

CS 704 CURRICULUM DISCOURSES/PERSPECTIVES OVER TIME This course focuses on the examination of the ways in which curriculum as a field has developed over time: attention to changes in terms of how it has been defined, conceptualized; theoretical and philosophical issues; assumptions and values; as well as implications for teaching and learning. These topics will be addressed within different historical and social contexts. Readings will include primary texts by major theorists as well as secondary material including commentary and critique. A primary goal of the course is to provide students with an overview of major movements in curriculum history as a foundation for further study. This course will serve as a prerequisite for all other curriculum courses in the doctoral program.

CS 706 CANDIDACY PAPER Non-Credit. This registration indicates that a student has successfully completed the candidacy paper as specified in the Doctoral Student Handbook.

CS 751 CURRICULUM FOR HUMAN AND COMMUNITY DEVELOPMENT This course examines theories and practices aimed at: (a) fostering personal integrity and meaningful learning in each individual; (b) promoting productive communications and relations between diverse individuals and communities; (c) constructing environments that are responsive to human needs at the individual, dyadic, group, and systemic levels, and (d) transforming social contexts in ways that promote a greater sense of equity and justice. Topics covered include: the influence of culture, context and experience on interaction patterns, interactions between human and community development, organizational climate, and communication processes such as community building, conflict resolution, and negotiation. Students will engage in self-reflection, story telling, narrative interpretation, and an analysis of instructional and communication processes aimed at promoting individual and community development within and across social organizations. Curriculum programs -- such as those developed from the ideas of James Comer, Seymour Sarason, or John Goodlad -- will be studied as case examples of the impact that fostering development and communication can have on building a learning community.

CS 754 CURRICULUM THEORIZING: MULTIPLE LENSES Curriculum Theorizing: Multiple Lenses. This course examines diverse curriculum discourses, historical as well as contemporary, within a broader context of issues related to education and schooling. It is designed to engage students critically in the study of curricular frameworks, their assumptions, values, and implications for education, schooling, teaching and learning. Major topics include: frameworks for defining and conceptualizing curriculum and curricular visions; social, political, and historical contexts of curriculum construction; issues of gender, race, class ableness, and the media; the
curriculum as socially constructed, and historically contextualized discourse(s) about what is and what should be taught. Particular content areas will be used as examples.

CS 761
ASSESSING SCHOOL CURRICULUM This course develops a framework for assessing the content, characteristics, and outcomes of the curriculum in a school. The framework will include the collection, organization and analysis of both quantitative and qualitative measures of effective instruction. Particular attention will be given to local, state, and national standards for content, teaching and outcomes. Attention will also be given to the qualities of the lived experiences of students in school and thus to the unintended as well as intended outcomes of schooling. Each student will be expected to begin assessing the curriculum in his or her school and to outline a proposal for a more complete assessment of the school’s curriculum.

CS 764
YOUTH DEVELOPMENT, IDEOLOGY, CULTURE, AND SOCIETY This course examines the ideological significance of “youth” in societies characterized by structural inequalities of power based on class, race, ethnic capability, sexual and/or gender relations of domination and subordination. Texts from a range of academic disciplines -- psychology, sociology, cultural studies, social work -- will be studied to show the influence these texts have had in shaping discourse about youth and youth development. The concept of “youth” will be looked at as a system of statements that produce arguments about young people and that, through these arguments, represent young people as deviant, deficient, perverted or resistant. These metaphors for dealing with crisis in society will be critically analyzed. The course will aim at critical self reflection; students will be challenged to examine their own assumptions about youth.

CS 774
ENGAGING IN CURRICULUM DELIBERATION This course engages students in systematic and collaborative deliberation on curriculum problems. A pattern for deliberation -- including situation analysis, problem discrimination and formulation, development of alternative courses of action, and anticipation of consequences -- will be developed, exemplified, and contrasted with other descriptions of curriculum development. The importance and role of alternative conceptions of learners, of situation, and of knowledge structures within disciplines will be emphasized. After engaging in stimulated deliberations, each student will be asked to examine the intellectual commitments underlying this approach to curriculum change, to reconsider his or her role as a curriculum leader in a school or other educational setting, and to develop realistic plans for engaging a particular school community in collaborative curriculum deliberation.

CS 784
CURRICULUM AND PROGRAM DESIGN This course studies principles underlying the design of effective, coherent, and comprehensive instructional programs. Topics include: the design and organization of core courses of study and related curricular components; the associated staff development program; and alignment with local, state, and national mandates. Particular attention will be given to planning for diversity, including differences in learning styles, special needs, culture and language.

CS 794
SPECIAL TOPICS IN CURRICULUM In order to assure that the program remains flexible, responsive to the needs of students, and inclusive of the areas of interest of both faculty and students, this variable topics course will provide an opportunity for critical examination of compelling topical issues related to education. Topics could include: issues in educational reform; special education; controversies in curricular discourse; current issues such as the education of homeless children; or legal and constitutional issues in education and schooling. The course will be conducted in a seminar format.

CS 849
SUPERVISED DISSERTATION PROPOSAL DEVELOPMENT Students register for this course during the quarter in which they defend their dissertation proposals. PREREQUISITE(S): Permission of dissertation chair.

CS 859
INDEPENDENT DISSERTATION RESEARCH: CURRICULUM STUDIES Students register for this course in the quarter after they successfully defend their dissertation proposals. PREREQUISITE(S): Permission of dissertation chair.
Computer Science

Graduate Course Descriptions • C • Computer Science

**Computer Science**

CSC 396
PROGRAMMING IN JAVA I AND II (AVAILABLE TO GRADUATE STUDENTS ONLY) An intensive eight-credit-hour course in Java programming. Covers the same material as CSC 211 and CSC 212 together, with two class meetings each week. PREREQUISITE(S): Graduate standing required.

CSC 415
FOUNDATIONS OF COMPUTER SCIENCE Propositional logic, predicate logic, mathematical proofs and reasoning, induction, basic algorithms and asymptotic analysis, recurrence relations, basic graph theory and graph algorithms

CSC 416
FOUNDATIONS OF COMPUTER SCIENCE II Implementation of data structures, including linked lists, stacks, queues, trees, balanced trees, hash tables, and graphs. Finite-state automata and grammars. PREREQUISITE(S): CSC 212 and CSC 415.

CSC 421
Applied Algorithms and Structures This course covers techniques for designing and analyzing algorithms and structures in the context of computer application development. Examples will come from Internet, WWW, database, and computer system applications. Fundamental topics such as running-time analysis, searching and sorting within various structures, divide-and-conquer and dynamic programming will be covered. PREREQUISITE(S): CSC202 and (CSC383 or CSC393)

CSC 423
DATA ANALYSIS AND REGRESSION Multiple regression and correlation, residual analysis, analysis of variance, and robustness. These topics will be studied from a data analytic perspective, supported by an investigation of available statistical software. PREREQUISITE(S): IT223.

CSC 424
ADVANCED DATA ANALYSIS Topics chosen from among discriminant analysis, principal components analysis, factor analysis, and non-parametric statistics. PREREQUISITE(S): CSC 423 or consent of instructor.

CSC 425
TIME SERIES ANALYSIS AND FORECASTING The course introduces students to statistical models for time series analysis and forecasting. The course topics include: autocorrelated data analysis, Box-Jenkins models (autoregressive, moving average, and autoregressive moving average models), analysis of seasonality, volatility models (GARCH-type, GARCH-M type, etc.), forecasting evaluation and diagnostics checking. The course will emphasize applications to financial data, volatility modeling and risk management. Real examples will be used throughout the course. PREREQUISITE(S): (CSC212 or CSC262), and (CSC423 or MAT456) or consent of instructor.

CSC 426
VALUES AND COMPUTER TECHNOLOGY The impact of computerized technologies on society with particular attention paid to the ethical issues raised by these social effects. The course will require all of Ph.D. students research leading to a paper of publishable quality. Techniques for this type of research and writing will be discussed. An oral presentation of the research of that paper will also be required. PREREQUISITE(S): Ph.D. status or consent of instructor.

CSC 428
DATA ANALYSIS FOR EXPERIMENTERS The analysis of experiments in the computing science with special emphasis on the use of statistical software and interpretation of generated output. PREREQUISITE(S): CSC 423.

CSC 431
SCIENTIFIC COMPUTING This course presents fundamental numerical algorithms for solving problems in scientific computing and computational finance. Areas covered include: error analysis, computer arithmetic,
linear algebra, optimization problems, numerical integration (solvers), ordinary differential equations (ODE). The emphasis of the course is on the design of the algorithms, and their analysis. Algorithms will be implemented using mathematical software. PREREQUISITE(S): CSC212 or CSC262, and 2 course calculus sequence or instructor’s permission.

CSC 438 FRAMEWORK FOR WEB APPLICATION DEVELOPMENT This course introduces concepts, techniques, technologies and APIs for web application development. The main focus of the course is on the Model-View-Controller design pattern employed by modern full-stack web frameworks. Concepts and techniques covered include client/server programming, database abstraction APIs, and asynchronous javascript. Examples of full-stack MVC frameworks include Ruby-on-Rails (written in Ruby), Django and TurboGears (written in Python). PREREQUISITE: CSC 374

CSC 440 CRYPTOLOGY Introduction to the methods of cryptography and cryptanalysis. Topics include classical cryptography (codes, monoalphabetic and polyalphabetic substitution ciphers, transposition ciphers), modern block ciphers (such as DES, AES), and public key cryptography (such as RSA). Optional topics include zero-knowledge protocols, information theory, coding theory, error-correcting codes, steganography, stream ciphers, hashing algorithms, quantum cryptography, elliptic curve cryptography, and history. PREREQUISITE(S): CSC 212 or CSC 262.

CSC 443 INTRODUCTION TO OPERATING SYSTEMS An advanced course on operating system design and implementation. Process management and scheduling, memory management, file systems, device drivers, access control, and virtualization will be covered. The emphasis of the course will be on implementing components of a functional operating system. PREREQUISITE: CSC373 and CSC374

CSC 444 AUTOMATA THEORY AND FORMAL GRAMMARS An introduction to the most important abstract models of computation and their applications: finite state machines and pushdown automata. Explores the relationship between regular expressions and formal expressions and automata. PREREQUISITE(S): CSC383 or Discrete Math.

CSC 447 CONCEPTS OF PROGRAMMING LANGUAGES Syntax of programming languages: regular expressions, finite automata, context-free grammars, parsing. Scoping, binding, parameter passing, exception handling. Declarative programming languages. Typing, polymorphism. Runtime systems: dynamic loading, byte-code verification, security managers, garbage collection, versioning. PREREQUISITE(S): (CSC 383 or CSC 393) and CSC373 and CSC374.

CSC 448 COMPILER DESIGN Design and structure of high level languages. Lexical scan, top down and bottom up syntactic analysis. Syntax directed translation and LR(k) grammars. PREREQUISITE(S): CSC 447 or consent.

CSC 449 DATABASE TECHNOLOGIES This is a graduate course in databases that introduces the principals and issues in database design and implementation. Topics covered include: conceptual database modeling, logical designs using the relational database model, relational algebra, implementation techniques using query languages, functional dependencies, normalization, and physical design and indexing structures. PREREQUISITE(S): NONE.

CSC 451 DATABASE DESIGN Design methodologies. Requirement formulation and analysis, conceptual design, implementation design, physical design. Emphasis will be on data modeling techniques. Class team projects include the design of a complete database structure and implementation of design tools. PREREQUISITE(S): Graduate Standing.

CSC 452 DATABASE PROGRAMMING Programming in large-scale relational database environment using host languages. Design and implementation of on-line applications. Topics covered in this course include: database programming using open architectures, embedded query languages, dynamic query language, procedural extension of query languages, stored procedures, transaction management, and introduction to extensible markup data definition and retrieval languages. PREREQUISITE(S): (CSC 449 or CSC451) and (CSC 212 or CSC261 or CSC 224 or CSC309).
CSC 454
DATABASE ADMINISTRATION AND MANAGEMENT This course is designed to give students a comprehensive foundation in database administration and management. The course provides a conceptual understanding of the database architecture and how its components work and interact with one another. Topics covered in this course include: database architecture, capacity planning, installation and maintenance, network configuration, security management, utilities and tools, industry standards and guidelines, database management techniques and practices. PREREQUISITE(S): CSC 449 or CSC 451.

CSC 457
EXPERT SYSTEMS A detailed study of the development of artificial intelligence-based expert systems applications. Students will use commercial expert systems packages to develop example applications programs. Topics will include rule-based systems, decision trees, forward and backward chaining, inference, reasoning with uncertainty, and intelligent agents. PREREQUISITE(S): CSC 383 or CSC 393.

CSC 458
SYMBOLIC PROGRAMMING Concepts of symbolic programming as embodied in the language LISP. Basic data and control structures of LISP: symbolic expressions, the interpreter, functions, recursion, iteration. Techniques for prototyping and building conceptually advanced systems in an environment that encourages procedural and data abstraction. Advanced topics may include Prolog, intelligent tutoring systems, intelligent agents, and natural language processing. Assignments will focus on basic AI techniques, but the class is intended for anyone who will need to rapidly develop large complex systems. PREREQUISITE(S): CSC 383 or CSC 393.

CSC 466
SOFTWARE ENGINEERING II (SEE 96466,9/95) Software Engineering II (see 96466,9/95) (PREREQUISITE: CSC 465 Or 475).

CSC 480
FOUNDATIONS OF ARTIFICIAL INTELLIGENCE This course will provide an in-depth survey of important concepts, problems, and techniques in artificial intelligence. A particular focus and a unifying theme in the course will be the concept of "intelligent agents." No previous knowledge of AI is necessary to take the course. The course is particularly suitable for graduate and advanced undergraduate students who want to gain the technical background necessary to build intelligent systems, or as a preparation for more advanced work in AI. The concepts and techniques learned in this course will be directly applicable to many other areas of computing sciences, including software design, distributed systems, databases, and information management and retrieval. PREREQUISITE(S): CSC 383 or CSC 393.

CSC 481
INTRODUCTION TO IMAGE PROCESSING The course is a prerequisite for more advanced Visual Computing (VC) courses and the students will be challenged to implement VC algorithms for real world applications. The topics covered in the course include: components of an image processing system and its applications, elements of visual perception, sampling and quantization, image enhancement by histogram equalization, color spaces and transformations, introduction to segmentation (Edge detection), and morphological image processing. PREREQUISITE(S): Calculus or Linear Algebra.

CSC 482
APPLIED IMAGE ANALYSIS The course is meant to provide students with the basic techniques of image analysis and understanding required for the medical domain, military domain, new and emerging domains, and other fields of interest to the students. The topics covered in the course include: imaging modalities, 2D & 3D imaging, 2D & time-sequenced images, archiving, accessing and transmitting large images, optic flow, increased visual discrimination, segmentation, registration, diagnosis, feature extraction, and image visualization. PREREQUISITE(S): CSC 481.

CSC 484
INTRODUCTION TO COMPUTER VISION Edge detection. Image representation and description using low-level features. A sample of image segmentation techniques. Perceptual grouping. 2D shape representation and classification. Motion analysis and tracking. Prerequisites: CSC 481.

CSC 485
CSC 486

CSC 487
OPERATIONS RESEARCH I: LINEAR PROGRAMMING Linear Programming. The Linear Programming problem and its dual; the simplex method; transportation and warehouse problems; computer algorithms and applications to various fields. PREREQUISITE(S): MAT 220 and any introductory programming course.

CSC 488
OPERATIONS RESEARCH II: OPTIMIZATION THEORY Optimization Theory. Integer programming; nonlinear programming; dynamic programming; game theory. PREREQUISITE(S): CSC 487.

CSC 489
THEORY OF COMPUTATION Advanced topics in the mathematical foundations of computation. Topics may include random access and Turing machines, recursive functions, algorithms, computability and computational complexity, intractable problems, NP-complete problems. PREREQUISITE(S): CSC 444 or CSC 491.

CSC 491
ADVANCED ALGORITHMS A course on advanced algorithms and data structures. Topics may include advanced data structures and graph algorithms, network flows, computational geometry, FFT, linear algebra algorithms, approximation and randomized algorithms. PREREQUISITE: CSC 421

CSC 503
PARALLEL ALGORITHMS Development, implementation, and applications of parallel algorithms. Models of parallel computation. Parallel sorting, searching and graph algorithms, as well as other parallel algorithms, will be studied and implemented on both simulated and actual parallel machines. PREREQUISITE(S): CSC 491.

CSC 504
PARALLEL PROCESSING Specific multiprocessor architectures and how to implement various algorithms on each machine. Students will implement a fairly large project on a multiprocessor. The course will also introduce some compilation techniques, for a better understanding of the issues. PREREQUISITE(S): CSC 491.

CSC 521
MONTE CARLO SIMULATIONS: ALGORITHMS AND APPLICATIONS CSC 521 is graduate level course about the use of random numbers in simulations. The course introduces the concepts of pseudo-random number generators, Monte Carlo techniques, Bootstrap errors and the Metropolis algorithm. The subject is explained through examples in a variety of fields including computer science, telecommunications, graphics, physics, bioinformatics and finance. The different problems are formulated in computational terms in a way accessible to students with different backgrounds. The course emphasizes similarities among the different examples rather then their differences. Examples include: network reliability, rendering, protein folding, option pricing, and criticality of nuclear reactors. This is a programming course. It requires knowledge of calculus, elementary statistics, and good programming skills in Java and/or C++. Prerequisites: CSC 323, CSC 212 or instructor's permission. CSC 415 is suggested but not required.

CSC 525
COMBINATORIAL OPTIMIZATION This course defines and introduces the concepts and techniques needed to formulate and model optimization problems. A set of fundamental problems in combinatorial optimization will be covered together with their applications. The emphasis will be on the design and analysis of algorithms for such problems. The computational complexity of this set of problems (easy/hard to solve/approximate) will be discussed, and techniques for coping with intractable problems will be introduced. PREREQUISITE(S): CSC 491.

CSC 531
INTRODUCTION TO BIOINFORMATICS An introduction to the field of Bioinformatics, which is computational modeling of biological and biochemical processes. Some programming in Java will be involved. Little biological knowledge will be assumed: any required will be taught in the course. Topics will include genomics, biological databases, sequence alignment (longest common subsequence), phylogenetic trees, and protein folding. Prerequisites: CSC 491 and SE 450.

CSC 535

CSC 538
VISION SYSTEMS Visions Systems will cover the geometry of computer vision as well as a survey of working vision systems to include 1) Content-based Image Retrieval Systems; 2) Object Detection and Tracking Systems; 3) Medical Visual Systems; 4) Robotic Navigation Systems. PREREQUISITE(S): CSC 484

CSC 541
INTRODUCTION TO PROTEOMICS Catalog description: An introduction to the field of Proteomics, continuing in more depth and detail from the prerequisite course Introduction to Bioinformatics. Proteomics is computational modeling of biological and biochemical processes related to the Proteome. The Proteome is the set of proteins expressed by a cell in a specific tissue at a specific point in its life. Some programming in Java will be involved. The only biological knowledge required is that taught in the prerequisite course. Topics will include mass spectrometry analysis of proteins, protein folding, and proteomic databases. PREREQUISITE(S): CSC 531

CSC 542
RESEARCH PRACTICUM IN COMPUTATIONAL BIOLOGY Catalog description: An advanced course in Bioinformatics that draws on and enhances the information learned in CSC 531 Introduction to Bioinformatics, CSC 541 Introduction to Proteomics, and on all computer science classes. The student will spend 15 hours each week during the quarter in the laboratory of a biological or biochemical research scientist at a suitable research laboratory determined by the instructor. The student will work in the biology research group performing the computational components. The student will be able to take this course several times, working in different types of laboratories. The course title in the transcript will reflect the work performed, and will be different each time this course is taken. PREREQUISITE(S): CSC 531, CSC 541 AND permission of instructor

CSC 543
SPATIAL DATABASES & GEOGRAPHIC INFORMATION SYSTEMS This course considers how spatial databases work within a GIS, how data is structured, stored, indexed, retrieved, and displayed. Other topics may include fuzzy spatial databases, temporal spatial databases, and multiple criteria spatial decision making. The class will consist of hands-on work with commercial products, as well as investigating the state-of-the-art research in the field. Prerequisites: CSC 449 or CSC 451.

CSC 545
ADVANCED COMPUTER ORGANIZATION Parallel, array and pipeline processors and other topics of current interest. PREREQUISITE(S): CSC 445.

CSC 546
OPERATING SYSTEMS DESIGN A project/seminar oriented course examining the details of the design of operating systems. The ideas from CSC 446 will be extended and incorporated into the design details. PREREQUISITE(S): CSC 446.

CSC 547
ADVANCED TOPICS IN PROGRAM LANGUAGES A project-based course on advanced topics related to programming languages and programming environments. The course does not have any formal exams or homework assignments, but participants are expected to read papers on current research, actively participate in discussions, and complete a significant course project. PREREQUISITE(S): Permission of the instructor.

CSC 548
ADVANCED COMPILER DESIGN Emphasis on practical problems in implementing compilers, data flow analysis, code optimization, error analysis. Discussion of compiler generators. As a class project, students will write a compiler. PREREQUISITE(S): CSC 448.

CSC 549
DATABASE SYSTEM IMPLEMENTATION This is an advanced database course that covers issues in DBMS implementation. Topics covered in this course include: physical data organizations, indexing and hashing, query processing and optimization, database recovery techniques, transaction management, concurrency control, and security. PREREQUISITE(S): CSC 449.
CSC 550

CSC 551
DISTRIBUTED DATABASE SYSTEMS Distributed database architecture, distributed database design, distributed query processing, query decomposition and optimization of distributed queries, distributed transaction management and concurrency control, distributed DBMS reliability, distributed database operating systems. Distributed multidatabase systems. Client/Server database systems. PREREQUISITE(S): (CSC 449 or CSC 451) and (DS 420 or DS 425 or SE435 or TDC 425 or TDC 463).

CSC 553
ADVANCED DATABASE CONCEPTS An introduction to advanced selected topics in databases. The topics include: intelligent and deductive databases, temporal databases, multimedia databases, spatial and geographic databases, fuzzy databases, mobile databases, data mining and data warehousing, as well as emerging issues and concepts in database design, implementation and management. PREREQUISITE(S): CSC 449 or CSC 451.

CSC 559
SOFTWARE PROJECT: DEVELOPING FINANCIAL ENGINES This course focuses on software engineering issues in creating a financial engine that drives automation and execution in a financial market. The course will cover different types of financial engines from back-office to front-office, exchange matching engines, data gathering engines, trading engines and straight through processing. The emphasis will be on the engines themselves rather than the financial models beneath them. Students will be required to work individually and/or in teams and create a financial engine. This is a project course and it will put students in the role of a domain architect who will need the skills required to communicate with financial traders and software engineers at the same time. PREREQUISITE(S): (CSC309 or CSC262) and (CSC431 or CSC521 or CSC425).

CSC 575
INTELLIGENT INFORMATION RETRIEVAL (FORMERLY DS575) (Formerly DS575) Examination of the design, implementation, and evaluation of information retrieval systems. The focus is on the underlying retrieval models, algorithms, and system implementations. Also examined is how an effective information search and retrieval is interrelated with the organization and description of information to be retrieved. Topics include: automatic indexing; thesaurus generation; Boolean, vector-space, and probabilistic models; clustering and classification; information filtering; distributed IR on the WWW; intelligence information agents; IR system evaluation; information visualization; and natural language processing in IR. Throughout the course, current literature from the viewpoints of both research and practical retrieval technologies both on and off the World Wide Web will be examined. PREREQUISITE(S): (CSC 374 and CSC 383) OR Permission of Instructor.

CSC 577
MANAGEMENT OF INFORMATION TECHNOLOGY (SEE 94577) Management Of Information Technology (prerequisite: Csc 475)(see 94577)

CSC 578
NEURAL NETWORKS AND MACHINE LEARNING A study of the basic structure of neural networks and how machines may learn. This will include analyses of decision trees, Bayesian learning, genetic algorithms, PAC, analytical and reinforcement learning. Neural networks to be studied include Hopfield, backpropagation, Kohonen, ART, and Neuro-Fuzzy. Students will explore current applications and design several learning systems. No prior background in artificial intelligence is assumed. PREREQUISITE(S): MAT 220 or MAT 262 or MAT 151.

CSC 582

CSC 584
COMPUTER VISION Advanced image segmentation techniques. 2D and 3D shape representation and description. 3D shape reconstructions from single 2D images. Structure reconstruction from multiple views (stereo and motion). Model-based object recognition. Knowledge-based image understanding. Prerequisites:
CSC 484.

CSC 587
COGNITIVE SCIENCE A study of the relationships between our knowledge of human and computer intelligence. Levels of analysis of intelligent system, examples of cognitive models, and exposure to current publications, with an emphasis on those related to human computer interaction. Students will participate in the design and testing of models of human intelligence, both experimentally and using computer models. PREREQUISITE(S): CSC383 Or HCI460.

CSC 589
TOPICS IN DATABASE This is an independent study course. PREREQUISITE(S): Consent of the instructor.

CSC 590
TOPICS IN USER INTERFACES This is an independent study course. May be repeated for credit. PREREQUISITE(S): Completion of the corresponding visual computing core sequence or consent of instructor.

CSC 591
TOPICS IN ALGORITHMS An in-depth discussion of one or more of the following topics: algorithms for integer operations, polynomial arithmetic including applications of the fast Fourier transform, matrix operations, pattern matching algorithms, proving lower bounds on the complexity of algorithms, parallel algorithms, approximation algorithms. PREREQUISITE(S): CSC 491.

CSC 592
TOPICS IN COMPUTER VISION AND PATTERN RECOGNITION This is an independent study course. May be repeated for credit. PREREQUISITE(S): Completion of the corresponding visual computing core sequence or consent of instructor.

CSC 594
TOPICS IN ARTIFICIAL INTELLIGENCE This is an independent study course. PREREQUISITE(S): Consent of the instructor.

CSC 598
TOPICS IN DATA ANALYSIS This is an independent study course. PREREQUISITE(S): Consent of the instructor.

CSC 599
TOPICS IN COMPUTER SCIENCE Independent study form required. PREREQUISITE(S): Consent of instructor.

CSC 601
MASTER'S RESEARCH CONTINUATION Non-credit. This course is intended for master's degree students who have completed all course registration requirements and who are regularly using the facilities of the University for study and research, thesis or project completion. These students are required to be registered in this course each quarter of the academic year until all requirements have been completed. PREREQUISITE(S): Completion of required courses. Independent Study form required.

CSC 610
COMPUTER SCIENCE I An introduction to structured programming using PASCAL. Topics include: elementary data types, program control structures, character strings, array processing, procedures and functions, and an introduction to user-defined data types.

CSC 611
PROGRAMMING IN JAVA I Introduction to object-oriented programming using Java. Topics include variables, data types, control structures, arrays, method invocation and parameter passing, predefined classes and programmer-defined classes. Introduction to Java interfaced and inheritance. Simple graphical user interfaces, events, and listeners.

CSC 615
INTRODUCTION TO STRUCTURED PROGRAMMING USING C Introduction To Structured Programming Using C (crosslist 215)(coreq Mat140)

CSC 621
PROGRAMMING IN JAVA I Introduction to object-oriented programming using Java. Topics include variables, data types, control structures, arrays, method invocation and parameter passing, predefined classes and programmer-defined classes. Introduction to Java interfaces and inheritance. Simple graphical user interfaces,
CSC 622
PROGRAMMING IN JAVA II Intermediate object-oriented programming using Java. Implementation of programmer-defined classes including stacks and queues, Java collection classes. Introduction to class diagrams. Exception handling. Simple network programming including applets, JDBC, and URL access. PREREQUISITE(S): CSC 611

CSC 624
JAVA FOR PROGRAMMERS Object-oriented programming in Java. Simple graphical user interfaces, events, and listeners. Implementation of programmer-defined classes including stacks and queues, Java collection classes. Introduction to class diagrams. Exception handling. Simple network programming including applets, JDBC, and URL access. PREREQUISITE(S): Experience in at least one high-level programming language

CSC 630

CSC 640
TEACHING COMPUTER SCIENCE This course guides students to identify, evaluate and assimilate pedagogical techniques (instruction and assessment) to teach Computer Science (CS), with particular attention to various implementations of cooperative learning strategies. Students develop, evaluate, critique and deliver a learning unit on fundamental aspects of CS. Students learn how to structure, teach and assess an Advanced Placement CS course according to the current guidelines of the College Board. They also learn to identify, locate and evaluate various resources (publications, web resources, dedicated software, and professional societies) that enrich their role as educators. Throughout the course attention is given to the diversity of learning styles and special needs of students within the CS curriculum. N.B. For students enrolled in the Teaching and Learning Graduate program offered by the School of Education (SOE), and for students seeking certification for grades 9-12 or 5-12, this course requires 35 clinical hours of type II in a local high school according to the specification of the SOE Student Handbook. PREREQUISITE(S): CSC 383 or CSC 393 or instructor consent.

CSC 670
COMPUTER-ASSISTED INSTRUCTION Study and analysis of the use of the computer as an aid in instruction. Use of CAI languages such as PILOT. PREREQUISITE(S): CSC 630.

CSC 671
QUANTITATIVE COMPUTING WORKSHOP Quantitative computing background needed for graduate study complemented with application to useful problems using appropriate software tools.

CSC 672
DATA ANALYSIS WORKSHOP Statistical background needed for graduate study complemented with experience in data analysis using SAS. PREREQUISITE(S): CSC 671 or equivalent.

CSC 680
PROGRAMMING WITH LOGO An introduction to LOGO, a powerful yet easy-to-learn language that both adults and children can use to express ideas.

CSC 690
RESEARCH SEMINAR Readings and discussion on current research topics. PREREQUISITE(S): Consent of the instructor.

CSC 695
MASTER'S INDEPENDENT STUDY (1 - 4 CREDITS) Students interested in a more in-depth study of a particular area will register for this course and work with a faculty member (not necessarily their academic advisor) on a research project. The work involved may include system development, empirical studies, or theoretical work. 4 credit-hours of CSC695 replace one 500-level CS elective course in the MS in CS program and can be taken for up to 8 credit-hours. PREREQUISITE(S): Consent of research advisor. Independent study form required. Students must successfully complete the Core Knowledge Phase courses prior to their first enrollment in CSC 695.

CSC 696
MASTER'S RESEARCH A student who has made a significant contribution to a research project, through work done in two quarters of CSC 695 (8 credit-hours), may choose to complete the Master's Research option. At the end of the two quarters, the student must submit a technical report detailing the results of the research project. This report must be approved by the student's research supervisor and the faculty advisor, at which point it will be made available to the public as a CTI Departmental Master's Research Technical Report. In that case, the student will be allowed to register for this course. The transcript will show the Research project title as the course topic. PREREQUISITE(S): CSC 695 taken twice and approval of report by student's research supervisor and faculty advisor.

CSC 697
GRADUATE INTERNSHIP In cooperation with local employers, the graduate program offers students the opportunity to integrate their academic experience with on-the-job training in computer related work areas. This course is offered for one credit and admission to the program requires consent of a Student Services Advisor. International students may complete curricular practical training through this class.

CSC 698
MASTER'S THESIS A student who has made an original contribution to the area (through work done in CSC 695 typically but not necessarily) may choose to complete a Master's Thesis. The student and the student's research advisor should form a Master's Thesis Committee of 3 faculty. The student will need submit to the committee a thesis detailing the results of the research project. After a public defense, the committee will decide whether to accept the thesis. In that case, the student will be allowed to register for this course and the transcript will show the thesis title as the course topic. The thesis will be made available to the public as a CTI Departmental Master's Thesis Technical Report. PREREQUISITE(S): Successful defense of a Master's Thesis.

CSC 699
RESEARCH PREREQUISITE(S): One to 12 hours per quarter. A total of 12 hours is required.

CSC 701
RESIDENT CANDIDACY CONTINUATION Non-credit. Students admitted to candidacy for the doctoral degree who have completed all course and dissertation registration requirements and who are regularly using the facilities of the University for study and research are required to be registered each quarter of the academic year until the dissertation and final examination have been completed. PREREQUISITE(S): Admission to Candidacy. Independent Study form required.

CSC 702
NON-RESIDENT CANDIDACY CONTINUATION (PREREQUISITE: ADMISSION TO CANDIDACY) Non-credit. This registration provides for doctoral candidates who have been admitted to candidacy who are not in residence and need only occasional use of University facilities, including the libraries. PREREQUISITE(S): Admission to Candidacy. Independent Study form required.
Digital Cinema

DC 401 WRITING THE SHORT MOTION PICTURE The essential elements and conventions for writing the short film including, character, plot structure, sub-plots, surprise, inevitability, and resolution. Students will complete a screenplay for a 30-minute film.

DC 402 WRITING THE FEATURE FILM This course emphasizes telling a story cinematically in terms of action and the reality of characters portrayed. The difference between the literary and visual medium is explored through individual writing projects and group analysis. The fundamental terminology, resources, tools and techniques that are essential to the professional screenwriter are taught. Students are required to write a feature length screenplay.

DC 411 MUSIC VIDEO PRODUCTION Analysis of music video forms and the music video business. Students will complete an original music video.

DC 415 ADVANCED SOUND DESIGN Integration of dialogue, music, and sound effects in narrative and documentary.

DC 417 POST-PRODUCTION SOUND PRACTICUM This course offers the opportunity for the student to further refine the cueing, shooting and editing of post-production sound, especially the crafts that involve studio shooting, as Foley and ADR require. There will be assigned projects that allow practical experience in writing, cueing and shooting the ADR (both group and individual), as well as cueing, performing and editing Foley and effects for both live-action and animation.

DC 420 ADVANCED NON-LINEAR EDITING Continuity editing, pacing, rhythm, and postproduction workflow.

DC 421 PRODUCTION DESIGN Analysis of production design and art direction in motion pictures.

DC 430 VISUAL EFFECTS Exploration of the expanding field of visual effects. Students explore contemporary concepts and approaches to production in the current stage of film and video effects work. Digital and traditional methodologies will be covered, with a concentration on digital exercises illustrating modern techniques.

DC 460 DIGITAL CINEMA PROSEMINAR Introduces the field of Digital Cinema and the faculty who teach in it. Each week a different DC faculty member will present his or her research and relate that topic to the wider field of Cinema. Encourages students to clarify their course of study and build alliances with faculty and students with similar interests.

DC 461 PRODUCTION WORKSHOP Students work in teams to produce a completed project every two weeks. Each team will be assigned a specific genre or medium of cinema/media production. Students will be exposed to every aspect of media production from live action shooting to visual effects. Students will also learn how to work well in a team environment and be forced to adhere to deadlines, time constraints and medium limitations.

DC 462
PRODUCTION SEMINAR Emphasis on directing actors, with production skills such as camera, lighting, editing and sound used in service of the performance. Topics covered include objectives, beats, script analysis, casting, rehearsal, and actor/director relationships. Students will cast working actors or actors from the Theatre School, in short films from adapted screenplays, and produce sample reel material for both actors and directors. PREREQUISITE(S): DC 461

DC 471
DOCUMENTARY PRODUCTION Analysis of documentary forms and techniques. Students will complete a 15-30 minute documentary motion picture.

DC 475
ADVANCED CINEMATOGRAPHY In depth study of camera techniques, camera technology, lenses, and optics. Projects in camera movement and rigging, hand-held camera, and exposure control.

DC 476
VISUAL DESIGN Definition, analysis, and structure of visual components that cinema employs to support and emphasize the story. Theory of visual design will be applied through student still photos, as well as an original, visually-oriented, narrative or documentary short film, animation or game design. PREREQUISITE(S): DC 460 or Permission of Instructor

DC 478
SPECIAL EFFECTS AND COMPOSITING Special effects for motion pictures including stop motion, motion control, green screen, and compositing.

DC 480
PROJECT BLUELIGHT Production of a feature-length digital motion picture written by students or faculty within the Digital Cinema program. Students will work as crew under supervision of faculty members heading each of the various production areas. Goal is to produce a completed digital motion picture suitable for festivals or distribution. In addition to production work, graduate students are required will write a 7-10 page paper which analyzes the experience and how it relates to their MS/MFA course of study.

DC 481
DISTRIBUTION AND EXHIBITION Conventional and emerging modes of motion picture distribution with special emphasis on digital streaming and exhibition.

DC 485
PRODUCING THE FEATURE FILM This course focuses on the role of the contemporary producer from idea origination and script development to financing and physical production and, finally, to distribution and exhibition. Students master the concepts of revenue streams, constructing deals (gross and net point participation), copyright, marketing, and box office analysis. Production management and line producing are also covered. From script breakdown and production preparation to post-production supervision and delivery, the physical production process is defined.

DC 489
THE BIG PICTURE: THE ENTERTAINMENT INDUSTRY This course introduces students to vital information about the industry in which they will work. Students will learn industrial analysis of production, distribution, and exhibition sectors, including mastering concepts of revenue streams, constructing deals (gross points and net point participation), copyright, marketing, and box office analysis. Students will also study the structure of organizations and groups crucial to the entertainment industry: studios, talent, agents, exhibition (markets: theatrical, virtual and ancillary), professional organizations including guilds like ASC, and media licensing firms like ASCAP and BMI. There will be an emphasis on global industry.

DC 490
DIRECTING This course examines diverse directing styles, techniques, and strategies all designed to develop a working sense of narrative point of view. The course studies the relationship between actor, text, and director, then expands to include directorial use of storyboards, camera plots, brackets, and shooting scripts as tools for camera placement. Emphasis is on development of director's camera placement and breakdowns, beat analysis, rehearsal techniques, and casting. Included in the class are exercises and projects that require the students to utilize the concepts emphasized.

DC 495
DIRECTING THE SHORT MOTION PICTURE Blocking for the camera, the action axis, 180-degree principle, moving the camera, directing actors, working with crew, and delegating responsibilities.
DC 499
INTERNSHIP In consultation with DC faculty, students design a field experience under the direction of a project director in the field. The field experience may be derived from issues raised in courses, from thesis research, or from personal research interests.

DC 525
Digital Media Practicum Digital Media Practicum This practicum provides all students with a foundation in digital media practices. Students work with still images, moving images and sound using integrated digital media applications. Students learn how to use different media forms to express creativity and ideas across interactive media settings. The course focuses on the technical, social and cultural competencies required to traverse media in online convergence environments.

DC 565
THESIS DEVELOPMENT In this class, students work intensively on a thesis project proposal based on responses from the instructor, their classmates, and from graduate faculty readers. For narrative work, the goal is to generate a well-developed dramatic treatment and then a 1st draft script of the thesis project (20mins) and secure 2 thesis advisers from the DC faculty with producing experience.

DC 566
THESIS PRODUCTION The production of the finalized thesis project proposal. Students will have 2 thesis advisors from the DC faculty with significant production experience.

DC 567
THESIS POST-PRODUCTION The post-production of the finalized thesis project proposal. Students will have 2 thesis advisors from the DC faculty with significant post-production experience.

DC 599
INDEPENDENT STUDY Independent study form required. PREREQUISITE(S): Consent of instructor.

Design

Graduate Course Descriptions ▸ D ▸ Design

Design

DES 541
PRINCIPLES OF DESIGN FOR DIRECTORS Principles of Design for Directors.

DES 542
PRINCIPLES OF DESIGN FOR DIRECTORS Principles of Design for Directors

DES 543
PRINCIPLES OF DESIGN FOR DIRECTORS Principles of Design for Directors

DES 571
DESIGN PRODUCTION PRACTICE: GRADUATE I Six quarter hours. To be taken by all design and technical students. Design-area duties include practical work on production designing, construction, and running. (prereq)

DES 572
DESIGN PRODUCTION PRACTICE: GRADUATE I Six quarter hours. To be taken by all design and technical students. Design-area duties include practical work on production designing, construction, and running. (prereq)

DES 573
DES 573
DESIGN PRODUCTION PRACTICE: GRADUATE I Six quarter hours. To be taken by all design and technical students. Design-area duties include practical work on production designing, construction, and running. (prereq)

DES 599
INDEPENDENT STUDY Independent Study

DES 641
THEATRICAL COLLABORATION (PREREQ: OPEN TO 3RD & 4TH YR STUDENTS & MFA STUDENTS) Theatrical Collaboration (3 quarter hours) An investigation, through research and discussion, of the conceptual problems of physically mounting specific, assigned scripts from the classic and modern theatre, covering a broad stylistic range. Students will submit proposals for designs and justify their ideas through literary and pictorial research. The directorial and collaborative problems of arriving at a production concept, up to, but not including fully-realized design documentation, is emphasized through a series of projects. PREREQUISITE(S): Open to 3rd and 4th year BFA Lighting, Scenery, Costume Design and Dramaturgy students, in addition to MFA students.

DES 642
THEATRICAL COLLABORATION (PREREQ: OPEN TO 3RD & 4TH YEAR STUDENTS AND MFA STUDENTS) Theatrical Collaboration (3 quarter hours) An investigation, through research and discussion, of the conceptual problems of physically mounting specific, assigned scripts from the classic and modern theatre, covering a broad stylistic range. Students will submit proposals for designs and justify their ideas through literary and pictorial research. The directorial and collaborative problems of arriving at a production concept, up to, but not including fully-realized design documentation, is emphasized through a series of projects. PREREQUISITE(S): Open to 3rd and 4th year BFA Lighting, Scenery, Costume Design and Dramaturgy students, in addition to MFA students.

DES 643
THEATRICAL COLLABORATION (PREREQ: OPEN TO 3RD AND 4TH YEAR STUDENTS AND MFA STUDENTS) Theatrical Collaboration (3 quarter hours) An investigation, through research and discussion, of the conceptual problems of physically mounting specific, assigned scripts from the classic and modern theatre, covering a broad stylistic range. Students will submit proposals for designs and justify their ideas through literary and pictorial research. The directorial and collaborative problems of arriving at a production concept, up to, but not including fully-realized design documentation, is emphasized through a series of projects. PREREQUISITE(S): Open to 3rd and 4th year BFA Lighting, Scenery, Costume Design and Dramaturgy students, in addition to MFA students.

DES 671
DESIGN PRODUCTION PRACTICE: GRADUATE II Six quarter hours. To be taken by all design and technical students. Design-area duties include practical work on production designing, constructing, painting, and running. (prereq)

DES 672
DESIGN PRODUCTION PRACTICE: GRADUATE II Six quarter hours. To be taken by all design and technical students. Design-area duties include practical work on production designing, constructing, painting, and running. (prereq)

DES 673
DESIGN PRODUCTION PRACTICE: GRADUATE II Six quarter hours. To be taken by all design and technical students. Design-area duties include practical work on production designing, constructing, painting, and running. (prereq)

DES 690
INTERNSHIP The internship provides the student with an opportunity to learn by working with experienced professionals in an area related to his or her area of study at The Theatre School.

DES 741
THESIS PROJECT IN DESIGN Nine quarter hours. The production of the MFA thesis, consisting of portfolio and manuscript, under the supervision of the advisor. (prereq)

DES 742
THESIS PROJECT IN DESIGN Nine quarter hours. The production of the MFA thesis, consisting of portfolio and manuscript, under the supervision of the advisor. (prereq)
DES 743
THEESIS PROJECT IN DESIGN Nine quarter hours. The production of the MFA thesis, consisting of portfolio and manuscript, under the supervision of the advisor. (prereq)

DES 771
DESIGN PRODUCTION PRACTICE: GRADUATE III Six quarter hours. To be taken by all design and technical students. Design-area duties include practical work on production designing, constructing, painting, running. (prereq).

DES 772
DESIGN PRODUCTION PRACTICE: GRADUATE III Six quarter hours. To be taken by all design and technical students. Design-area duties include practical work on production designing, constructing, painting, running. (prereq).

DES 773
DESIGN PRODUCTION PRACTICE: GRADUATE III Six quarter hours. To be taken by all design and technical students. Design-area duties include practical work on production designing, constructing, painting, running. (prereq).

Distributed Systems

Graduate Course Descriptions Distributed Systems

Distributed Systems

DS 425
DISTRIBUTED SYSTEMS FUNDAMENTALS This course covers a variety of fundamental topics in distributed systems, including communication protocols, sockets, operating system support, threads, remote invocation, security in a distributed environment, time in a distributed environment, naming services, coordination and agreement and transactions. This course is intended as a service course. Students with the appropriate technical prerequisites should select DS420. PREREQUISITE(S): CSC 212 or CSC 224.

DS 432

DS 520
SYSTEM DESIGN AND IMPLEMENTATION WITH DISTRIBUTED OBJECT FRAMEWORKS This course will look in depth at the capabilities provided by Distributed Object Frameworks (such as CORBA) and how these capabilities make the design and implementation of distributed systems more efficient. Students will gain familiarity with the concepts involved (including distributed object references, naming services, error handling, and interoperability) by designing and implementing a system of distributed objects within such a framework. PREREQUISITE(S): DS421 or SE550

DS 591
DISTRIBUTED ALGORITHMS Design and analysis of algorithms for solving problems arising in distributed computing, such as resource allocation, distributed agreement, and management of shared data. Distributed computation models and their relationships: synchronous vs. asynchronous vs. partially synchronous, shared memory vs. network models. Algorithms for leader election, graph problems, mutual exclusion, and synchronization in reliable and unreliable networks will be covered. PREREQUISITE(S): CSC 491.

DS 594
DISTRIBUTED SYSTEMS PROJECT Design, justification, implementation, and performance analysis of a distributed system. Team-based projects that use a variety of tools are encouraged. PREREQUISITE(S): DS 520, SE 450.

DS 599
TOPICS IN DISTRIBUTED SYSTEMS This is an independent study course. (PREREQUISITE(S): Consent of instructor. Independent Study form required).

ECO 500
MONEY AND FINANCIAL SYSTEMS (FORMERLY GSB 513) This course examines both the role of money in the economy from a functional and macroeconomic perspective as well as the structure and function of the most important financial institutions and financial markets. Topics covered include the role of the Federal Reserve as monetary policymaker, interest rate and exchange rate determination, the relationship between money and economic activity, and the organization and importance of money markets, capital markets, markets for derivative securities, commercial banks and other intermediaries in a well-functioning financial system.
ECO 501
CONCEPTS OF MICRO AND MACRO ECONOMICS This course investigates the basic elements of the economic way of thinking. Students will begin with models of the consumer and the producer, looking specifically at demand and supply, elasticity, measures of efficiency, production and cost theory, and the determination of price and quantity under different market structures. The remainder of the course is devoted to analyzing the economy as a whole, focusing on the determination of Gross Domestic Product, the role of money and monetary policy, labor markets and unemployment, price stability, and short-run fluctuations in output.

ECO 505
ADVANCED MICROECONOMICS (PREREQ: ECO 555 OR EQUIVALENT OR ECO 380 OR EQUIVALENT) An advanced course in microeconomic theory. This course will present a systematic and rigorous analysis of price determination and the allocation of specific resources to particular uses. PREREQUISITE(S): ECO 555 or equivalent or ECO 380 or equivalent.

ECO 506
ADVANCED MACROECONOMICS (PREREQ: ECO 509 OR EQUIVALENT) An advanced course in macroeconomic theory that examines the determination of income, employment, and prices, and their interrelations. Covers traditional Keynesian as well as alternative models of output, consumption, investment, money demand, inflation and unemployment. The dynamic character of income determination is emphasized, along with effects of government policy, economic institutions, and social goals. PREREQUISITE(S): ECO 509 or equivalent.

ECO 509
BUSINESS CONDITIONS ANALYSIS This course teaches students how to use available economic data to assess business conditions. This is done by: (1) evaluating the sources and usefulness of data periodically released by government and private sources and (2) developing a macroeconomic framework that the student can use to analyze business conditions. Completion of this course will allow students to understand economic news and relate it to their business or job.

ECO 510
ECONOMETRIC METHODS FOR BUSINESS ANALYSIS This course is designed to provide the student with more advanced methods in quantitative analysis. Topics covered include hypothesis testing, probability, correlation analysis and multiple regression. This course will be offered every Winter quarter. PREREQUISITES: GSB 420 OR EQUIVALENT

ECO 511
BUSINESS AND ECONOMIC FORECASTING (PREREQ: ECO 509 OR EQUIVALENT & ECO 510 OR EQUIVALENT) This course surveys a number of quantitative techniques commonly used to forecast business and economic variables. Emphasis will be on techniques, their relative strengths and weaknesses and real-world economic applications. Topics include smoothing techniques, regression and econometric analysis and Box-Jenkins time series. PREREQUISITE(S): ECO 509 or equivalent and ECO 510 or equivalent.

ECO 512
APPLIED TIME SERIES AND FORECASTING (CROSS-LISTED AS MATH 512/MATH 358) (PREREQ(S): SEE DESCRIPTION) Theory and computer implementation of the Box-Jenkins Techniques with emphasis on forecasting business and industrial activity. PREREQUISITE(S): ECO 509 or equivalent and ECO 510 or equivalent. Crosslisted as MAT 512.

ECO 514
INDUSTRIAL ORGANIZATION (PREREQ: ECO 555 OR EQUIVALENT) This course is concerned with how the market system directs production decisions under varying deviations from the competitive environment. The
links between market structure, conduct and performance are examined. Topics include determinants of market structure, various theories of imperfect competition, price discrimination, predatory pricing, and antitrust policy. PREREQUISITE(S): ECO 555 or equivalent.

ECO 515
GOVERNMENT REGULATION OF BUSINESS ACTIVITIES (PREREQ: ECO 555 OR EQUIVALENT) This course is designed to introduce students to an economic framework for analyzing the business policy implications of government regulation; and asks the question: “What is the appropriate level of government intervention of business activities?” During the first part of the course, existing government regulation of industries will be critically examined considering the full spectrum of “regulation” including: government enterprises; rate regulation of monopoly; quality regulation in competitive industries; and antitrust enforcement. Once students are comfortable using these analytical tools they will be asked to consider the impact of a change in regulation or the business environment on public policy concerns through analysis of current topics. PREREQUISITE(S): ECO 555 or equivalent.

ECO 516
PUBLIC ECONOMICS AND THE ECONOMICS OF TAXATION (PREREQ: ECO 555 OR EQUIVALENT) Application of microeconomic analysis to the role of government in society. The theoretical foundation for the design of an efficient and equitable tax and expenditure program is presented and the impact of such a program on the economy is explored through general equilibrium analysis. Students must have a solid foundation in basic calculus. PREREQUISITE(S): ECO 555 or equivalent.

ECO 518
LABOR ECONOMICS AND LABOR RELATIONS (CROSS-LISTED AS MGT 518) (PREREQ: ECO 555 OR EQUIVALENT) (Cross-listed as MGT 518) A study of the American labor force: measurement, characteristics and behavior under changing income, employment and technology. An examination of recent labor market developments provides the basis for a critical analysis and appraisal of contemporary wage theory. Topics include changes in the labor force, unemployment, wage determination, the minimum wage, internal labor markets, productivity, discrimination, unions and collective bargaining. PREREQUISITE(S): ECO 555 or equivalent.

ECO 530
HISTORY OF ECONOMIC THOUGHT (PREREQ: ECO 555 OR EQUIVALENT) A study of the evolution of the science of economics. Emphasis is on the important contributions made to the field by the great thinkers, starting with the Physiocrats and extending to the work of contemporary institutional and post-Keynesian economists. PREREQUISITE(S): ECO 555 or equivalent.

ECO 550
REGIONAL AND URBAN ECONOMICS (PREREQUISITE: ECO 555 OR EQUIVALENT) The course investigates the spatial character of an economic system. The first part of the course is concerned with theories in regional economics, including business and household location theory, urbanization, and regional development. The latter part of the course deals with urban economics, a specialized area concerned with the economic forces behind many urban problems. Topics include the economics of housing, transportation, poverty, crime and urban public finance. PREREQUISITE(S): ECO 555 or equivalent.

ECO 555
ECONOMICS FOR DECISION-MAKING (PREREQ: GSB 420) This course provides students with an opportunity to apply microeconomic principles to managerial decision-making. These principles include those underlying the theories of consumer choice, production and cost as they relate to decisions made by firms and households. Specific topics include consumer demand analysis and estimation; elasticity; production theory; cost structure and estimation; profit maximization; and the effect of market structure on pricing, output and profit. PREREQUISITE(S): GSB 420

ECO 557
INTERNATIONAL TRADE THEORY & POLICY (CROSS LISTED WITH IB 520) (PREREQ: ECO 555 OR EQUIVALENT) (Cross-listed with IB 520) Modern theories of international trade: classical theory of comparative advantage, factor proportions theory, factor price equalization, application of welfare economics to international trade, including regional economic integration, commercial policy and tariff problems. PREREQUISITE(S): ECO 555 or equivalent.

ECO 558
INTERNATIONAL MACROECONOMICS (PREREQ: ECO 509 OR EQUIVALENT) (CROSS-LIST: IB 521) Analyzes traditional macroeconomic issues in a framework that allows for international trade and capital flows. PREREQUISITE(S): ECO 509 or equivalent.
ECO 560
DEVELOPMENT OF THE AMERICAN ECONOMY (PREREQ: ECO 509 OR EQUIVALENT AND ECO 555 OR EQUIVALENT) This course describes the economic development of the United States by examining topics such as: colonial settlement patterns, the impact of the railroad, the development of the financial system and the Great Depression. PREREQUISITE(S): ECO 509 or equivalent and ECO 555 or equivalent.

ECO 561
ECONOMICS OF DEVELOPING COUNTRIES (CROSS LISTED WITH IB 525) (PREREQ: ECO 555 OR EQUIVALENT) Introduction to the economist's analytical skills applied to problems of developing and newly industrialized countries. Studies economic theory of development, development policy, and decision-making in the developing world; several case studies are examined. PREREQUISITE(S): ECO 555 or equivalent.

ECO 576
ADVANCED ECONOMETRICS (PREREQ: ECO 555 OR EQUIVALENT) The fundamental problems in the application of statistical procedures to econometric estimation will be studied: multicollinearity, identification, serial correlation, and nonhomogeneity of error variance. In addition, more sophisticated estimation techniques will be studied, e.g., reduced-form and multiple-stage regression techniques. PREREQUISITE(S): ECO 555, 510, or equivalent.

ECO 600
THESIS RESEARCH Thesis Research

ECO 798
SPECIAL TOPICS Content and format of this course are variable. An in-depth study of current issues in economics. Subject matter will be indicated in class schedule.

ECO 799
INDEPENDENT STUDY (PREREQ: WRITTEN PERMISSION) Available to graduate students of demonstrated capability for intensive independent work in economics. PREREQUISITE(S): Written permission.

E-Commerce Technology

Graduate Course Descriptions ♦ E ♦ E-Commerce Technology

E- Commerce Technology

ECT 423
INTERNET MULTIMEDIA (Cross-listed as HCI 423) Design and prototyping of multimedia applications for delivery via the Internet. Survey of low-bandwidth file formats for images, sound, and animation. Bandwidth reduction techniques and tools. Discussion of client side and server side allocation of responsibility. Authoring tools. Students will create and evaluate several small applications. PREREQUISITE(S): ECT 441.

ECT 425
TECHNICAL FUNDAMENTALS OF DISTRIBUTED INFORMATION SYSTEMS The course is an introduction to distributed information systems, including architecture of distributed information systems, networking, communication protocols, operating system support, remote method invocation, web service, and security in distributed information systems. PREREQUISITE(S): CSC212

ECT 433
SURVEY OF WEB PROGRAMMING TECHNOLOGIES Survey of server-side scripting technology with emphasis on information search in a Web site. Projects include development of product catalogs and information search system of a Web site. For non-ECT and non-IS major only. PREREQUISITE(S): HCI 430 for HCI majors; Completion of Prerequisite phase for other majors.

ECT 435
SURVEY OF E-COMMERCE STRATEGIES AND TECHNOLOGY A survey of business models, value propositions, and e-commerce value chains for consumer-oriented, business-to-business, and collaborative e-commerce applications. Marketing, security, digital money, e-business infrastructure, basics of Web site engineering process, e-commerce technology and tools. This is a service course. Students with server-side programming skills should take ECT 455. Prerequisites: ECT 250 and IS 421.

ECT 441 USABILITY ISSUES FOR ELECTRONIC COMMERCE (Cross-listed with HCI 441) Design, prototyping and evaluation of e-commerce web sites. Context of usability in the project development life cycle. User/task analysis with emphasis on the first time and the infrequent user. Content organization. User testing with low fidelity prototypes. Issues of perceived privacy and security. Students' projects involve design and/or evaluation of actual electronic commerce sites. PREREQUISITE(S): ECT 455.

ECT 455 E-COMMERCE WEB SITE ENGINEERING (Formerly ECT 555, cross-listed with HCI 513) An introduction to Web site engineering methods and processes to support e-commerce development. Web site engineering life cycle and user-centered design, including site goals, business models, value propositions, user analysis, information architecture, interface and navigation design, usability guidelines, database, testing, hosting strategies, usage metrics, and collaborative development. Technologies for e-commerce, shopping cart, digital payments, promotion strategies, and security issues. Students will build fully functional Web sites using database and client- and server-side technologies. Prerequisites: ECT 310 or HCI 430 or proficiency in programming.

ECT 480 INTRANETS AND PORTALS Intranet development methodology. Data warehousing concept and On-Line analytic processing (OLAP) for information management. Enterprise information portals (EIP). Transforming information into knowledge. Major applications involve: decision support, customer applications and content personalization for intranet. Students will conduct case studies and projects. PREREQUISITE(S): ECT 455.

ECT 481 INTERNET SUPPLY CHAIN MANAGEMENT This course examines system architectures, technologies, approaches, and infrastructure requirements in the context of supply chain systems. The focus is on the design, development and implementation of systems that facilitate the collaboration of an enterprise with its buyers and suppliers. Topics include development of messaging-based collaboration framework with web services. Students will design and implement a collaborative extranet system component in team projects. PREREQUISITE(S): ECT 425.

ECT 556 ENTERPRISE ARCHITECTURE AND DESIGN This is an advanced course on the design and planning of enterprise architecture that enables intra-/multi-enterprise collaboration and interoperability. The emphasis is on the alignment between IT and organizational objectives through the integration of business architectures, data and information architecture, application architecture, technology architecture, interfaces and infrastructure. Topics include: frameworks, tools, and methodologies for enterprise architecture design; data and process modeling, application integration, implementation fundamentals, adaptability to changing organizational needs, and managing costs of implementation. Students will conduct case studies and develop architecture plans. Prerequisites: ECT 480, or SE 450, or consent.

ECT 557 PEER-TO-PEER TECHNOLOGY Peer-to-Peer (P2P) e-commerce is a paradigm for programming distributed e-commerce systems characterized by an increasing decentralization and autonomy of components. This course reviews the technical and business issues regarding P2P e-commerce. Topics include: P2P architecture and interoperability; P2P systems in use today; P2P content management issues; P2P collaboration applications: chat, white boards, file sharing, games, and synchronization; and P2P security and monitory. Also addressed are: P2P application and business models for business to business and to consumer e-commerce; supply chain and collaborative planning, forecasting and replenishment; intellectual property concerns, management issues, and programming P2P applications. Prerequisites: ECT 425, ECT 480, and ECT 481.

ECT 565 MOBILE ENTERPRISE Mobile enterprise information systems are becoming increasingly complex and consist of existing systems with enabling middleware to achieve end-to-end enterprise mobile solutions. Mobile infrastructure performs content adaptation, data synchronization, bridging corporate and mobile messaging systems and support mobile information portals. The course will discuss web services oriented component
architecture and system integration with Adaptive Application Architecture (AAA) with Wireless application gateway (WAG) and Multi-channel Access Gateways (MAG) supporting mobile and wireless access for heterogeneous devices. Such concepts as content distribution, connectivity and security, scalability and load balancing, device management will be discussed. Additional topics include Location-aware applications supporting mobile knowledge workers, business process for value contribution, and investment decisions on mobile technologies. Students will become familiar with mobile enterprise tool suites, mobile messaging delivery platforms, wireless Web portals. Students will be implementing mobile enterprise solution components. PREREQUISITE(S): Completed foundation phase.

ECT  582
SECURE ELECTRONIC COMMERCE This course studies security requirements, threat modeling, and appropriate safeguards for e-commerce systems. Major topics include web application security, web service security, and web server security. PREREQUISITE(S): ECT 425 or DS420 or TDC477

ECT  583
ADVANCED SCRIPTING TECHNOLOGIES This course focuses on applying advanced scripting technologies in the design and development of large Web applications. Major topics include tiered application design, transacted Web applications, components, and Web services. Prerequisites: Proficiency in programming.

ECT  584
WEB DATA MINING FOR BUSINESS INTELLIGENCE An in-depth study of various aspects of data collection, data extraction, and knowledge discovery on the Web for e-business intelligence. The primary topics covered in the course are Web usage mining, Web content mining, and Web structure mining. Techniques and applications for mining e-commerce and Web usage data for site management, personalization and user profiling. Also addressed are privacy issues, collaborative and content-based filtering. Techniques for harnessing semi-structured data through techniques based on text mining, and meta-data representation and manipulation using XML. PREREQUISITE(S): CSC 383 and CSC 449, or consent.

ECT  585
LEGAL ASPECTS OF E-COMMERCE This course is focused on how the law affects e-commerce. Topics include: electronic contracts, privacy issues associated with the use of the Internet, security issues including digital signatures, encryption and biometrics, intellectual property issues including trademark/domain name conflicts, copyrights, patents for business methods, taxation of internet transactions. Students will also gain an understanding of the issues involved in taking a company public (IPO), what information venture capitalists (VC) require in order to make decisions regarding financing startup companies. Prerequisite: ECT 455.

ECT  586
CUSTOMER RELATIONSHIP MANAGEMENT TECHNOLOGIES An in-depth study of customer relationship management (CRM) technologies and applications. The special focus will be on the application of CRM technologies for managing the customer lifecycle across Internet and offline channels. Topics include customer identification, data integration, personalization technologies, web and email interaction techniques; sales force automation applications; call centers, field service and logistics applications; customer self-service and customer knowledge management technologies. Students will review and compare specific eCRM technologies and develop an Internet customer interaction system to support an eCRM strategy in group project. PREREQUISITE(S): ECT 455.

ECT  587
MOBILE COMMERCE TECHNOLOGY This course examines leading wireless and mobile technologies for consumer and enterprise mobile commerce. Topics include wireless standards and technologies, the impact of bandwidth, platforms, form factors, mobile data services, security and transaction models. Wireless Web development issues concern Web synchronization, server-side content management, Wireless Application Protocol (WAP), Wireless Markup Language (WML), Handheld Device Markup Language (HDML), wireless user interface design, and wireless Web development tools. Mobile commerce applications include personalization, customer relationship management, mobile portals, and wireless enterprise solutions for business process and workflow. Students will develop mobile commerce applications. (PREREQUISITE(S): ECT 455).

ECT  588
E-MARKETPLACE TECHNOLOGY This course concentrates on system development for online trading applications supporting complex interactions and transactions. Theoretical models of online information exchanges supporting negotiations such as: auctions, brokerages and exchanges/marketplaces will be discussed. Server/client side applications utilizing the models and distributed data access will be developed. Assignments will include system design as well as application development projects using Java.
ECT 589
E-COMMERCE TECHNOLOGY CAPSTONE Designed for ECT majors and IS majors in ECT concentration, this course focuses on the deployment of Internet and enterprise technologies to support organization's e-business initiatives and collaborative commerce. Conducted in the format of seminar, case analysis, and dialogue with industry practitioners, this course requires students to actively participate in the study of models and approaches for e-business technology implementation and transformation. Topics include: the impact of Internet on industry structure and organizational transformation, enterprise application architecture, planning and implementation of technology and process to support an increasingly collaborative and integrated environment for e-commerce. Students have to complete an organization case study of e-business technology implementation to fulfill the requirement of this capstone course. This course should be taken at the conclusion of the ECT program. PREREQUISITE(S): Completion of all other required courses.

ECT 590
E-BUSINESS TECHNOLOGY PRACTICUM This practicum course is aiming at exposing e-commerce students to distributed multi-platform, multi-language, multi-tier application development. Besides the heavy programming emphasis, the students will analyze design and implementation issues in such an environment. The course content involves design and development of an e-commerce system that includes business to business, customer facing, and information portal applications. Students will work on projects using different platforms and different programming languages in a lab environment. Topics include design of e-commerce systems, distributed database development, multi-web server environment development, application of distributed object technologies. This course fulfills the capstone/practicum requirement for ECT majors and should be taken at the conclusion of the program. Prerequisites: ECT 480 or ECT 481 or consent.

ECT 596
TOPICS IN E-COMMERCE TECHNOLOGY Independent study form required. PREREQUISITE(S): Consent of instructor.

ECT 690
RESEARCH SEMINAR Readings and discussion on current research topics. Students may register for this course no more than twice. PREREQUISITE(S): Consent of the instructor.

ECT 696
MASTER'S PROJECT Four credit hours. Students may register for this course only after their advisor has approved a written proposal for their project. Independent study form required. (PREREQUISITE(S):Consent of advisor).

ECT 698
MASTER'S THESIS (2 credit hours) Students may register for this course only after their advisor has approved a written proposal for their thesis. Students must continue to register for this course every quarter after their first registration in it until they complete their project or thesis to the satisfaction of their advisor. They earn two hours of credit for each such registration but only four hours of credit will apply for degree credit. Independent study form required. PREREQUISITE(S): Consent of advisor.

English

Graduate Course Descriptions ∞ E ∞ English

ENG 401
HISTORY OF THE ENGLISH LANGUAGE A systematic study of the nature, history and usage of the English language. The course traces the language from its origin to its present status in England and America.
HISTORY OF ENGLISH PROSE STYLE A survey of alternative theoretical approaches to the study of style, followed by intensive study of changes in the conventions of English prose from the Renaissance to the present.

ENG 403
HISTORY OF RHETORIC I: CLASSICAL RHETORIC A survey of Greek and Roman rhetorical theory. Examines important definitions and discussions of rhetoric from Plato to Augustine, with attention to their implications for an understanding of the roles of rhetoric and writing in modern society.

ENG 404
HISTORY OF RHETORIC II: RHETORIC IN THE RENAISSANCE AND EIGHTEENTH CENTURY A survey of developments in rhetoric from the 16th through the 18th centuries. Includes consideration of the vernacular rhetorics of the English Renaissance and analysis of connections between logic, rhetoric and literary criticism in the 18th century, with attention to implications for contemporary studies of literature, language and writing.

ENG 405

ENG 406
MULTICULTURAL RHETORICS An introduction to written rhetoric and culture. Explores competing conceptions of culture and meanings of literacy, particularly as they relate to American literacy education.

ENG 408
STYLISTICS Theory and practice in examining features of prose style, including linguistic, rhetorical and literary perspectives on style.

ENG 409
TOPICS IN LANGUAGE, RHETORIC AND WRITING See schedule for current offering.

ENG 411
CHAUCER Chaucer's works in context of his milieu.

ENG 412
STUDIES IN ARTHURIAN LITERATURE Geoffrey of Monmouth, Wace, Layamon and Malory.

ENG 413
STUDIES IN MEDIEVAL LITERARY FORMS Alternating emphasis on poetic, narrative and dramatic genres of the 14th and 15th centuries.

ENG 416
STRUCTURE OF MODERN ENGLISH A systematic outline of modern English from both traditional and contemporary linguistic perspectives. Examines descriptive grammars, word and phrase structure, syntax and semantics, and formal issues of style and rhetoric.

ENG 419
TOPICS IN MEDIEVAL LITERATURE See schedule for current offering.

ENG 421
STUDIES IN ENGLISH RENAISSANCE PROSE Major prose works, including More's Utopia, Sidney's Apology for Poetry, Bacon's Essays, and Milton's Areopagitica.

ENG 422
STUDIES IN ENGLISH RENAISSANCE POETRY Alternating emphasis on the English epic, the 16th-century lyric, and the 17th-century lyric.

ENG 423
STUDIES IN ENGLISH RENAISSANCE DRAMA Tudor-Stuart drama, including works by Kyd, Marlowe, Jonson, Webster and Ford.

ENG 426
THE ESSAY: HISTORY, THEORY, PRACTICE (FORMERLY ENG 488) Explores the history of the essay as genre
from the Renaissance to the present, compares and contrasts literary essays with those written in most school settings, and offers students the opportunity to write their own extended essays on personal and professional topics.

ENG 427
MILTON Major poems and selected prose.

ENG 428
STUDIES IN SHAKESPEARE Study of selected plays through various critical and scholarly perspectives.

ENG 429
TOPICS IN RENAISSANCE LITERATURE See schedule for current offering.

ENG 431
STUDIES IN THE EIGHTEENTH CENTURY NOVEL Representative English prose fiction, including Defoe, Richardson, Fielding, Sterne and the Gothic novel.

ENG 432
STUDIES IN RESTORATION AND 18TH CENTURY DRAMA Studies in the comedy of manners, sentimental comedy, heroic drama, and bourgeois tragedy.

ENG 434
STUDIES IN RESTORATION AND EIGHTEENTH CENTURY AUTHORS Alternating emphasis on, for example, Dryden, Pope, Swift, Johnson or other authors.

ENG 439
TOPICS IN RESTORATION AND EIGHTEENTH CENTURY LITERATURE See schedule for current offerings.

ENG 441
STUDIES IN ENGLISH ROMANTIC PROSE Major Romantic nonfiction prose writers, including Burke, Coleridge, Hazlitt, DeQuincey and Lamb.

ENG 442
STUDIES IN ENGLISH ROMANTIC POETRY Alternating emphasis on major Romantic poets, including Blake, Wordsworth, Coleridge, Byron, Shelley and Keats.

ENG 443
STUDIES IN VICTORIAN PROSE Major Victorian nonfiction prose writers, including Carlyle, Newman, Ruskin, Mill, Arnold and Pater.

ENG 444
STUDIES IN VICTORIAN POETRY Major Victorian poets, including Tennyson, Browning and Arnold.

ENG 445
STUDIES IN 19TH CENTURY BRITISH FICTION Alternating emphasis on major novelists including Dickens, Thackeray, the Brontes, Eliot, Trollope and Hardy.

ENG 446
NINETEENTH CENTURY IRISH LITERATURE This course surveys a broad range of literature from nineteenth-century Ireland. It reads literature within the social and historical context of its day; in terms of the formation of individual, social and national identities; and within today's debate about Ireland's status at the time.

ENG 449
TOPICS IN 19TH CENTURY BRITISH LITERATURE See schedule for current offering.

ENG 451
STUDIES IN THE MODERN BRITISH NOVEL Alternating areas of emphasis, including Woolf, Joyce, Forster and Conrad.

ENG 452
STUDIES IN MODERN BRITISH POETRY Alternating areas of emphasis, including Yeats, Auden, Lawrence, Dylan Thomas, Eliot and Larkin.
ENG 453
STUDIES IN MODERN BRITISH DRAMA Representative British and Irish plays from World War I to contemporary times.

ENG 455
MODERN IRISH LITERATURE This course uses both historical and theoretical approaches to Irish literature written from the Literary Revival to the late twentieth century. It emphasizes the transition from a colonized to a postcolonial society and the slow validation of the voices of Irish women writers.

ENG 456
CONTEMPORARY IRISH LITERATURE This course relates contemporary Irish literature to recent Irish history and to social and cultural change. It charts the ways in which patterns of individual, social and national identity have been challenged and renegotiated.

ENG 459
TOPICS IN MODERN BRITISH LITERATURE See schedule for current offering.

ENG 464
STUDIES IN AMERICAN AUTHORS Alternating emphasis on major writers, including Hawthorne, Melville, Poe, Whitman, Dickinson, Twain, Chopin, Crane, James, Wharton and Cather.

ENG 465
STUDIES IN THE MODERN AMERICAN NOVEL Alternating emphasis on major 20th-century writers, including Fitzgerald, Hemingway, Stein, Faulkner, Steinbeck, Porter, Penn Warren, Bellow, O'Connor, Oates and Morrison.

ENG 466
STUDIES IN MODERN AMERICAN POETRY Introduction to a wide range of twentieth-century American poetries, with alternating emphasis on modernists such as Frost, Eliot, Pound, Stevens, Williams, Moore, HD., Hughes, and Rukeyser as well as more recent figures and trends.

ENG 467
STUDIES IN AMERICAN DRAMA American dramatists and dramatic movements.

ENG 469
TOPICS IN AMERICAN LITERATURE See schedule for current offering.

ENG 471
BIBLIOGRAPHY AND LITERARY RESEARCH Principles and methods of literary research.

ENG 472
STUDIES IN LITERARY CRITICISM Study of the theoretical foundations of literary criticism, exemplified by major texts from ancient Greece to the present.

ENG 474
TEACHING LITERATURE Prepares English teachers to teach literature at the secondary and college undergraduate levels. The course develops methods of teaching all literary genres, addresses problems in literacy, and focuses on the transactional nature of reading and writing.

ENG 475
TOPICS IN LITERATURE See schedule for current offering.

ENG 480
TEACHING WRITING Introduction to teaching composition at the secondary and college undergraduate levels. The course helps students develop methods of teaching composition based on modern theories of rhetoric, reading and language acquisition.

ENG 482
WRITING CENTER THEORY AND PEDAGOGY (CROSS-LISTED AS ENG 395) Introduction to current theories and practices in writing instruction; prepares students to develop and administer writing centers and to work as writing consultants. (Writing Center practicum required.)
COMPOSITION THEORY Explores the development of contemporary theories of written composition; focuses on contexts for writing, the writing process, and reader-writer relationships.

ENG 485
TEACHING CREATIVE WRITING Prepares English teachers to teach creative writing at the secondary and college undergraduate levels. Models the planning and directing of effective workshops in poetry and fiction writing.

ENG 486
DOCUMENT DESIGN A practical and theoretical examination of the relationship between text and graphics. Students will apply basic graphic principles to actual documents.

ENG 487
TRAVEL WRITING Writing travel essays: history and forms of the literary travel essay; writing about travel for the book and magazine market.

ENG 489
SCREENWRITING An introduction to the craft of screenwriting. Covers principles of plot, dramatic conflict, characterization, dialogue, and screenplay form. Students develop short dramatic and documentary screenplays.

ENG 490
WRITING FOR MAGAZINES Covers the range of skills necessary for magazine writing. Discussion of the elements of style, humor, research, concept and imagery that characterize the literature of fact. Students investigate, compose and edit finished magazine articles to be submitted for publication.

ENG 491
SCIENCE WRITING An introduction to the creative career of science writing. Students research, write, and market articles on such subjects as astronomy, genetics, health, and technology for newspapers, magazines, e-zines, and innovative journals. No prior science background required.

ENG 492
WRITING FICTION A course in writing short stories. Emphasis is placed on class discussion of student writing.

ENG 493
WRITING POETRY (CROSS-LISTED AS MLS 479) A course in writing and reading poetry. Emphasis is placed on class discussion of student writing.

ENG 494
WRITING IN THE PROFESSIONS (CROSS-LISTED AS MLS 459 AND MPS 508) Improves writing skills useful in semi- and nontechnical professions; emphasis on style, tone, awareness of purpose and audience; effective memo, proposal and report writing.

ENG 495
TECHNICAL WRITING An introduction to various aspects of technical writing, including readability, document design, editing and usability.

ENG 496
EDITING An introduction to editing principles and practices in professional and technical fields.

ENG 497
WRITING THE LITERATURE OF FACT (PREREQUISITE: ENG 490 OR PERMISSION) An advanced course in reading and writing true-life stories in the nonfiction tradition exemplified by such writers as Dickens, Agee, McPhee, and Didion.

ENG 498
INDEPENDENT STUDY Independent Study

ENG 499
THESIS RESEARCH Thesis Research

ENG 500
INDEPENDENT STUDY Written permission of supervising faculty member and of the program director is
necessary before registration. Variable credit.

ENG 501
THESIS RESEARCH Written permission of supervising faculty member and of the program director is necessary before registration. Limited to four credits.

ENG 502
CANDIDACY CONTINUATION Non-credit. Required of all students who are not registered for regular courses but who occasionally utilize University facilities during completion of course requirements and/or research. $40.00 per quarter.

ENG 509
INTERNSHIP (PREREQUISITE: WRITTEN PERMISSION) Internship (prerequisite: Written Permission)

ENG 988
History Term Update Graduate
Focus Area

FA 402
FACILITY PLANNING AND DESIGN Facility Planning And Design

French

FCH 405
RENAISSANCE LaPleiade, Rabelais, Montaigne, Marguerite de Navarre.

FCH 411
FRENCH POETRY Topics include: form and substance; Baudelaire, Rimbaud, Verlaine, Mallarme; contemporary poets. Graduate standing required.

FCH 419
FRENCH WOMEN WRITERS Studies in literary, cultural and social issues. Graduate standing required.

FCH 497
SPECIAL TOPICS IN FRENCH See schedule for current offerings. Graduate standing required.

Finance

FIN 510
ADVANCED MONETARY THEORY AND POLICY (PREREQ: ECO 509 & FIN 555) This course is designed to provide the analytical tools for a critical examination of monetary and fiscal policies together with their impact on economic activity in general, and on the commercial banking system in particular. Problems involving interest rates, the value of money and qualitative portfolio changes are examined in detail in the light of current theoretical contributions. PREREQUISITE(S): ECO 509 and FIN 555.

FIN 511
CONTEMPORARY ISSUES IN MONETARY AND FISCAL POLICY (PREREQ: FIN 510 OR FIN 513 & FIN 555) Contemporary issues in the areas of fiscal, monetary and debt management. Analyzed through intensive readings and discussions of technical journal articles and research papers. PREREQUISITE(S): FIN 510 or FIN
FIN 512
COMMERCIAL BANKING (PREREQ: FIN 555) The purpose of the course is to analyze the role of commercial banks in the financial system. The present structure of banking will be studied with particular emphasis on the relationship between commercial banking practices and economic stabilization goals. Issues in bank asset management, liability management and capital adequacy will be presented. Finally, new dimensions in banking will be considered. PREREQUISITE(S): FIN 555.

FIN 513
MONEY AND CAPITAL MARKETS (PREREQ: ECO 509 AND FIN 555) This course is designed to study money, capital markets, and banking as a means to understanding how financial markets determine interest rates and why different assets earn different rates of returns; the economic functions of financial services firms (especially commercial banks); the role commercial banks play in financial markets and how their operations affect the functioning of our economic system; the role of regulation of financial services firms (including thrifts and commercial banks in influencing their behavior; and the role and function of central banks in the economy and how central banks actions interact with asset markets to affects the macro economy. PREREQUISITES: ECO 509 AND FIN 555

FIN 523
INVESTMENT ANALYSIS (PREREQ: FIN 555) This course provides an overview of the investment environment for the institutional money manager. The market mechanism, market equilibrium, the relationship between risk and return and the valuation of various investment instruments are investigated. PREREQUISITE(S): FIN 555.

FIN 524
FINANCIAL STATEMENT AND SECURITY ANALYSIS (PREREQ: FIN 555) This course develops financial analysis skills from the view of an outsider using a corporations publicly available financial statements. Techniques such as commonsizing, ration analysis, decomposition and the use of a comprehensive DuPont Model are used as a basis to teach analytical thought processes necessary to make projections for a company based on its financial statements. The use of spreadsheets as an analytical tool will be strongly emphasized. PREREQUI(S): FIN 555.

FIN 525
PORTFOLIO MANAGEMENT (PREREQ: FIN 523 AND FIN 555) This course analyzes contemporary theories and techniques of security selection and management available to the institution portfolio manager. Significant literature which emphasizes the role of the modern portfolio manager in achieving diversification and client investment goals is reviewed and evaluated. PREREQUISITE(S): FIN 523 and FIN 555.

FIN 526
ADVANCED TOPICS IN INVESTMENTS (PREREQ: FIN 523 & FIN 555) This course is designated to provide students with knowledge of fixed income securities and alternative investments such as real estate, venture capital and hedge funds. This knowledge will help prepare students to pass the fixed income and alternative investments sections of the CFA examinations. PREREQUISITE(S): FIN 523 & FIN 555.

FIN 530
REAL ESTATE INVESTMENT AND FINANCE (PREREQ: FIN 555) Analysis of real estate investment opportunities and the characteristics that distinguish them from other assets. Emphasis is upon forecasting cash flows and estimating risk. Case analysis is an integral part of the course technique. PREREQUISITE(S): FIN 555.

FIN 531

FIN 533
REAL ESTATE MARKET ANALYSIS AND VALUATION (PREREQ: FIN 555 AND FIN 530) Critical analysis of the appraisal process and its theoretical foundation. Market analysis techniques and valuation of income producing properties. Exploration of both basic and innovative approaches to value employing computer databases and information technology. PREREQUISITE(S): FIN 555, FIN 530.

FIN 535
REAL ESTATE INVESTMENT (PREREQ: FIN 530 AND FIN 555) Analysis of different strategies available to real
estate investors. Focus is on large-scale development and institutional investment portfolio decisions. The case method is an integral part of the course technique. PREREQUISITE(S): FIN 555 and FIN 530.

FIN 551
PROBLEMS IN CORPORATE FINANCIAL POLICY (PREREQ: FIN 555) Theoretical and practical tools in financial decision-making are discussed using cases studies. Covers investment analysis as this relates to the risk and timing of cash flows, capital structure and dividend policy. PREREQUISITE(S): FIN 555.

FIN 553
SPECIAL TOPICS IN CORPORATE FINANCE (PREREQ: FIN 555) The analytical methods and quantitative decision models applicable to special areas of corporate finance are examined and studied in this course. These topics could include current asset management, convertible bonds, warrants, lease financing, mergers and consolidations or other current financial issues. PREREQUISITE(S): FIN 555.

FIN 555
FINANCIAL MANAGEMENT (PREREQUISITES: ACC 500 and ECO 555 or equivalent AND GSB 420) A study of the major decision areas faced by the corporate financial manager and their relationship to the goals of the firm's owners. Specific topics include capital budgeting, capital structure and the cost of capital, dividend policy, and current asset management. PREREQUISITE(S): ACC 500 and ECO 555 or equivalents and GSB 420.

FIN 557
INTERNATIONAL FINANCE (PREREQUISITE(S): FIN 555) International Finance integrates the financial activities, institutions, and multinationals of the global finance arena. In addition to extending the tools of financial analysis to an international setting, the course studies the strategies available to a multinational because of operations in a multiple of countries. Topics include foreign currency and political risk, capital budgeting in a multinational setting, and cash flow management between countries. PREREQUISITE(S): FIN 555.

FIN 558
MERGERS AND ACQUISITIONS This course focuses on the pragmatic issues and relevant research studies on mergers, acquisitions and corporate restructuring. The field of mergers and acquisitions continues to experience dramatic growth. Although many companies pursue expansionary strategy that include mergers and acquisitions, many others rely on corporate restructuring to become more efficient, such as spin-offs, equity, carve-outs and divestitures. This course will also cover leverage buyouts, merger strategy, employee stock ownership plans, antitakeover measures and valuations of businesses, including the valuation of privately held firms. Prerequisite(s): FIN 555.

FIN 562
DERIVATIVES: PRICING & RISK MANAGEMENT (PREREQ: FIN 555) This course is designed as an introduction to derivative instruments; their characteristics, their pricing, the market's infrastructure, trading mechanics, and applications. The course introduces the binomial pricing model, the Black & Scholes continuous time pricing model, the associated properties i.e. "the Greeks." and forward pricing. The course examines the characteristics and market infrastructure for each of the four derivative instruments: forward, futures, options, and swaps. Then trading strategies and hedging applications for each of these instruments are discussed. The course concludes with an introduction to Value at Risk. PREREQUISITE(S): FIN 555.

FIN 571
FINANCING NEW VENTURES (PREREQ: FIN 555) This course will focus on identifying, examining and evaluating various sources of original and growth capital. Emphasis will be on legal, financial and tax issues related to capital formation as well as specific problems experienced by the small-to-medium-sized firm undergoing rapid growth. Topics discussed will include financing startups, financial planning and strategy, going public, selling out and bankruptcy. A formal proposal for capital acquisition developed through field research will be required of each student. PREREQUISITE(S): FIN 555.

FIN 581
THE PSYCHOLOGY OF FINANCIAL DECISION MAKING This course reviews current behavioral research on intuitive judgment, belief formation, risk attitudes, and emotion. The findings help to explain financial decisions made by individual investors, households and money managers. This course is a prerequisite for FIN 582 and FIN 583. It is especially useful for students who plan a career as financial advisors.

FIN 582
THE PSYCHOLOGY OF FINANCIAL MARKETS This course studies the behavior of world equity markets from a psychological perspective. Topics include equity portfolio management, investor sentiment, value and growth investing, market under- and overreaction to news and the quality of analysts' earnings forecasts and stock
investing, market under- and overreaction to news and the quality of analysts' earnings forecasts and stock recommendations. Selected aspects of bond, derivative, and currency markets are also discussed. Prerequisite: FIN 581.

FIN 583
BEHAVIORAL ASPECTS OF CORPORATE FINANCE This course asks how psychological, sociological and organizational forces shape the strategic investment, restructuring, and financing decisions made by top managers in corporations. Topics include capital budgeting, earnings management, investor relations, executive compensation and the role of corporate boards. PREREQUISITES: FIN 581 AND FIN 582

FIN 595
INVESTMENT SEMINAR (PREREQ: PREMISSION OF INSTRUCTOR) Construction and management of an actual portfolio fund in a nine month seminar setting. Registration requires approval of the seminar director based on applications due in the Spring quarter. PREREQUISITE(S): Permission of instructor.

FIN 596
REAL ESTATE SEMINAR (PREREQ(S): FIN 555 The objectives of this course are to identify current, researchable topics pertaining to real estate and for students to perform independent research on selected topics approved by the seminar professor. Meetings will be held on both a class and an individual basis. Students will present both their proposals and the results of their preliminary investigations in class. A seminar research paper is required of each student. PREREQUISITE(S): FIN 555.

FIN 597
RESEARCH SEMINAR IN FINANCE (PREREQ: FIN 555) The objectives of this seminar will be to review authoritative current contributions in the finance field, identify and evaluate data sources and pursue an original investigation on a topic approved by the seminar professor. Students shall be near the end of the M.B.A. program before enrolling in this course. PREREQUISITE: FIN 555.

FIN 617
QUANTITATIVE METHODS IN FINANCE (PREREQS): GSB 420 OR EQUIVALENT A survey of mathematical and statistical techniques used in finance and representative applications. Prerequisites: GSB 420 Or Equivalent.

FIN 662
ADVANCED DERIVATIVES: PRICING & APPLICATIONS FIN 555 & FIN 562 This course is designed to be an advanced course that focuses on the pricing models for the four derivative instruments: forwards, futures, options and swaps. Fixed income modeling as it is related to swaps and caps also will be considered. The first part of the course is devoted to an in depth examination of the various pricing models: discrete, continuous time, as well as Monte Carlo simulation. Each model's properties are derived and discussed in detail. These models are then applied to a range of realistic pricing situations which include swaps, exotic options, credit derivatives and complex Value at Risk problems. Prerequisites: FIN 555 & 562

FIN 697
RESEARCH SEMINAR IN FINANCE : INSTRUCTOR PERMISSION Will develop basic research skills and improve students' written and oral presentation skills. Students will present and critique research papers and develop their own research topics. INSTRUCTOR PERMISSION

FIN 798
SPECIAL TOPICS (PREREQ(S): DETERMINED BY INSTRUCTOR) Content and format of this course are variable. In-depth study of current issues in finance. Subject matter will be indicated in class schedule. Offered variably. PREREQUISITE(S): Determined by instructor.

FIN 799
INDEPENDENT STUDY (PREREQUISITE(S): DETERMINED BY INSTRUCTOR) Available to graduate students of demonstrated capability for intensive independent work in finance. PREREQUISITE(S): Determined by instructor.
Gaming

GAM 476
ARTIFICIAL INTELLIGENCE FOR COMPUTER GAMES Artificial Intelligence (AI) is one of the essential components of a computer game. The course introduces basic concepts of AI. Emphasis will be placed on applications of AI in various genres of computer games. In the implementation component of this course students will be exposed to the existing AI game engines (middleware), which contain implemented AI algorithms that are ready to be applied into game code. These algorithms include: decision trees, pathfinding, neural networks, script-driven game object behaviors. PREREQUISITE(S): CSC 383 or CSC 393

GAM 594
GAMING AND ENTERTAINMENT TECHNOLOGY CAPSTONE This course gives students an opportunity to utilize knowledge obtained in this degree program in developing a computer game, from conceptualization, design, to implementation. Issues in project management and configuration management will also be addressed. This work will constitute a major part of the project portfolio that students have developed during their study. PREREQUISITE(S): Completion Of Foundation Courses.

German

GER 497
SPECIAL TOPICS IN GERMAN
See schedule for current offerings. Graduate standing required.

GER 498
FOREIGN STUDY [PREREQ(S): PERMISSION]
Variable credit. Prerequisite(s): permission required. Graduate standing required.

GER 499
INDEPENDENT STUDY [PREREQ(S): PERMISSION OF CHAIR & INSTRUCTOR]Variable credit. Permission of chair and instructor required. Graduate standing required.

Computer Graphics & Animation

Computer Graphics & Animation
GPH 425
SURVEY OF COMPUTER GRAPHICS
Expression of visual intent through geometry and procedure. A survey of basic 3D techniques, including interaction of light and color. Visual effects of rendering, texturing, and lighting algorithms. Procedural modeling techniques and an introduction to procedurally-based texturing and animation. PREREQUISITE(S): CSC212 or CSC262.

GPH 436
FUNDAMENTALS OF COMPUTER GRAPHICS
An accelerated introduction to the graphics development environments and to graphical programming. Provides an in depth discussion of the basic mathematical language of computer graphics: vectors, transformations, homogeneous coordinates and their associated data structures. Advanced topics will include sampling theory and interpolation. Also provides a basic introduction to industry standards in graphics development, including specifying transformations and viewing parameters. PREREQUISITE(S): CSC 393 and MAT 150.

GPH 438
COMPUTER ANIMATION SURVEY
Survey of methods used in computer animation. This course uses commercially available software packages to teach techniques for animation and digital video production. The techniques covered include storyboarding, key frame animation, audio and video editing. PREREQUISITE(S): GPH 425 or GPH 469.

GPH 448
COMPUTER GRAPHICS SCRIPTING
Covers the use of scripting to generate computer graphics and animation. Emphasis on the benefits and differences of scripting languages compared to conventional graphics programming. Using commercially available scripting environments, students will generate complex graphics and animations that would not be possible with the conventional user interface. PREREQUISITE(S): GPH 438.

GPH 450
DIGITAL MODELING I
Introduction to 3D object modeling with an emphasis on visual applications and prototype design. Students will work with basic spatial operations in surface modeling and CAD interfaces and will produce an original object from pattern with computer-aided manufacture. Prerequisite: HCI 470.

GPH 469
COMPUTER GRAPHICS DEVELOPMENT
Basic graphics architecture. Coordinate systems. Three-dimensional representations and transformations. Simple visible-surface algorithms. Introduction to illumination. Gouraud and Phong shading. Antialiasing. Texture mapping and elements of animation. Students create a graphics package using a high-level graphics API such as OpenGL. PREREQUISITE(S): GPH 436

GPH 487
FORENSIC ANIMATION
Techniques and issues in forensic animation. Application of modeling and rendering to the recreation of time-based events for legal purposes. Survey of research and interview techniques. Demonstrative recreation and physically-based recreation. Issues of accuracy, verification, certification and ethics. Students research and recreate an event with forensic value. Possible project areas include motor vehicle incidents, aviation events, product liability, medicine, and trademark infringement. Prerequisite: TBD

GPH 536
SMOOTH SURFACE MODELING FOR GRAPHICS AND ANIMATION

GPH 538
RIGGING FOR ANIMATION
Readyng 3D characters and other models for animation. Skeleton chains, joint orientations, and degrees of freedom. IK solvers, including single chains, rotation and splines. Methods for computing weights for skinning body and face, including semi-automated approaches. Considerations for mechanical objects, animals and low-polygon models. PREREQUISITE(S): GPH 438
GPH 539
ADVANCED RENDERING TECHNIQUES
(Formerly CSC 539) Texture and environment mapping. Shadows. Ray tracing. Radiosity. Advanced illumination models. Elements of animation. (PREREQUISITE(s): GPH 438 or GPH 469 or ANI 439).

GPH 540
PROCEDURAL SHADING
Procedural pattern generation, creating patterns such as marble and wood with noise. Moving beyond the Phong Illumination model: Gaussian distributions and the Ward anisotropic model. BRDFs. Non-photorealistic rendering techniques such as "toon" shading and painterly techniques. PREREQUISITE(S): GPH 539

GPH 541
ADVANCED LIGHTING TECHNIQUES
Simple local models such as Phong, extensions to Phong (HDR), ray-traced lighting and shadows, soft shadow generation using shadow maps, radiosity for producing ambient lighting and photon mapping for calculating realistic refracted light. Theory, lighting features supported, efficiency, and practical considerations for choosing the model in production. PREREQUISITE(S): GPH 539

GPH 540
PROCEDURAL SHADING
Procedural pattern generation, creating patterns such as marble and wood with noise. Moving beyond the Phong Illumination model: Gaussian distributions and the Ward anisotropic model. BRDFs. Non-photorealistic rendering techniques such as "toon" shading and painterly techniques. PREREQUISITE(S): GPH 539

GPH 541
ADVANCED LIGHTING TECHNIQUES
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GPH 540
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GPH 541
ADVANCED LIGHTING TECHNIQUES
Simple local models such as Phong, extensions to Phong (HDR), ray-traced lighting and shadows, soft shadow generation using shadow maps, radiosity for producing ambient lighting and photon mapping for calculating realistic refracted light. Theory, lighting features supported, efficiency, and practical considerations for choosing the model in production. PREREQUISITE(S): GPH 539
GPH 580
Hardware Shading Techniques
This class explores the current trends in programmable computer graphics hardware. Modern graphics processing units (GPU's) are becoming increasingly powerful and fully programmable parallel processing units. They make extremely sophisticated effects in computer graphics, such as shadows, displacement maps, skinning, motion blur, reflections and refractions, possible in real-time scenes. In addition these increasingly general programmable units are being used for far more general computing problems from traditional searching and sorting algorithms to computational problems in physics such as the diffusion equation and fluid flow. In this course we will explore the applications of hardware shading to computer graphics, including advanced lighting, shading and surface effects. As time allows, we will explore other applications such as physics and computer science. Prerequisites: GPH 469

GPH 595
TOPICS IN GRAPHICS
May be repeated for credit. PREREQUISITE(S): Permission of instructor.

Graduate School of Business

Graduate Course Descriptions

Graduate School of Business

GSB 420
APPLIED QUANTITATIVE ANALYSIS This course provides a comprehensive review of some basic mathematical and statistical methods and stresses their practical applications in business and economics. The course will equip the student with the quantitative skills required in the MBA program and will also provide a good foundation for addressing typical problems that arise in business. Additionally, the skills acquired in the course will also help the student prepare for the quantitative sections of professional exams, such as the CFA, the CPA and the CMA exams. This course will stress learning through applications/problem-solving using Excel and/or Minitab software for data analyses. However, the course must be analytical and theoretical to the extent that is necessary to develop a correct understanding of the topics presented. The topics covered in the course include relevant mathematical concepts: use of relevant functions and solving equations in unknowns, elementary calculus and graphing functions. It also focuses on relevant statistical concepts: probability theory, hypothesis testing, regression analysis and forecasting.

GSB 520
ANALYTICAL METHODS This course is designed to provide the student with more advanced methods in quantitative analysis. Topics covered include hypothesis testing, probability, correlation analysis and multiple regression. This course will be offered at least twice a year.

GSB 540
GREAT IDEAS, BUSINESS AND SOCIETY (CROSS-LISTED AS MLS 452) (PREREQ: GRADUATE STANDING) An in-depth study, using primary sources of the basic ideas, aspirations, values-goods in the highest sense—which humanity strives to attain and which constitutes fundamental and challenging demands on the world of business and its managers and their policies and decision. (Cross-listed with MLS 452.) Offered variably. PREREQUISITE (S): Graduate Standing.

GSB 599
STRATEGIC ANALYSIS FOR COMPETING GLOBALLY (SEE DESCRIPTION FOR PREREQUISITES) This capstone course views the impact of contemporary issues on corporate strategy. Competitive, cultural, social and ethical issues are examined within the context of a global business environment. The course content emphasizes identifying strategic alternatives, developing corporate and business strategies, and understanding the role of functional activities and organizational processes from a strategic viewpoint. The process of the course involves team interaction, problem-solving, group decision-making, written reports and oral presentations. PREREQUISITE (S): ACC 500, MGT 500, MGT 502, BLW 500, ECO 500, ECO 509, IB 500, ACC
corporate performance measurement, and strategic planning. This course will be useful for MBA candidates
analysis methods and tools. The course provides deep insights into the world of investment analysis,
actual review and evaluation of company financial statements, using of several types of practical financial
in market irrationality, or simply "the market doesn't understand my company". The course will be driven by
managerial performance? Corporate managers today are plagued by these questions, leaving them to believe
record Return On Equity amidst abysmal stock returns? Why and when is stock price BAD for measuring
investigated in the course: When should a business grow? When is growth meaningless to investors? Why
systems, and understanding of the performance of the company. Key managerial questions will be
financial quantitative measures are examined in detail in actual organizations. Specific execution initiatives
improvement. The course is linked tightly to Return Driven Strategy. While there is not specific business
execution system that can be recommended in every situation, two general schools of thought have emerged
will be highlighted, focusing on the main principles and examples: "Balanced scorecard and the use of
Strategy Maps." Value-Based management, and the interrelationship of value drivers Both financial and non-
financial quantitative measures are examined in detail in actual organizations. Specific execution initiatives
in popular use by organizations will also be studied including: "Six Sigma, Lean Manufacturing, Total Quality
Management (TQM) The seminars and research projects focus on studying successful companies and how
they execute on their business strategies. Further, a survey of companies that employ execution strategies
without good business strategy, and the results, are also investigated. Each student will participate in team
projects to understand these systems. The Instructors: This course is co-designed and co-taught by Dr. Keith Howe and Dr. Mark L.
Frigo, and Joel Litman, Clinical Professor of Business Strategy at DePaul's Kellstadt Graduate School of
Business and Director in Equity Research at Credit Suisse First Boston. Pre-requisites: ACC 500, ACC 555, FIN
555 or Instructor Consent.

GSB 621
STRATEGY EXECUTION FRAMEWORKS (PRE-REQUISITES ACC 500, ACC 555, FIN 555 OR INSTRUCTOR
CONSENT) Business execution frameworks, such as the Balanced Scorecard and Value Based Management
(VBM) are used by companies to turn their strategic plans into action, and help ensure execution of intended
activities. Confusion can exist between what exactly constitutes the execution process and what makes up
the strategic planning and strategy development processes. This course will provide MBA candidates with an
understanding and working skill-set for linking strategy to execution. It will also enable students how to
recognize flaws in corporate management systems in this area. Further, it will provide them with the
background to evaluate the quality of their business execution systems, and identify opportunities for
improvement. The course is linked tightly to Return Driven Strategy. While there is not specific business
execution system that can be recommended in every situation, two general schools of thought have emerged
and will be highlighted, focusing on the main principles and examples: "Balanced scorecard and the use of
Strategy Maps." Value-Based management, and the interrelationship of value drivers Both financial and non-
financial quantitative measures are examined in detail in actual organizations. Specific execution initiatives
in popular use by organizations will also be studied including: "Six Sigma, Lean Manufacturing, Total Quality
Management (TQM) The seminars and research projects focus on studying successful companies and how
they execute on their business strategies. Further, a survey of companies that employ execution strategies
without good business strategy, and the results, are also investigated. Each student will participate in team
projects to understand these systems. The Instructors: This course is co-designed and co-taught by Dr. Mark L.
Frigo, Eichenbaum Foundation Distinguished Professor of Strategy and Leadership, and Joel Litman, Clinical
Professor of Business Strategy at DePauls' Kellstadt and director in Equity Research at Credit Suisse First
Boston. They have been combining their efforts in the research, study, and development of business strategy
models and frameworks for execution and value creation and have assisted a wide range of public and private
companies in the application of these concepts.

GSB 631
STRATEGIC FINANCIAL ANALYSIS (PRE-REQUISITES ACC 500, ACC 555, FIN 555 OR INSTRUCTOR CONSENT) This
course is designed for all MBA students seeking to develop skills in strategic financial analysis. The
course provides a deep, unabashed evaluation of corporate performance with a focus on traditional and cash-
based measures, and strategic applications. Understanding the strengths and weaknesses of various types of
financial analyses is a requirement for designing and developing business strategy, business execution
systems, and understanding of the performance of the company. Key managerial questions will be
investigated in the course: When should a business grow? When is growth meaningless to investors? Why
does an increase in net income, even over decades, still result in stock price drops? Why do companies report
record Return On Equity amidst abysmal stock returns? Why and when is stock price BAD for measuring
managerial performance? Corporate managers today are plagued by these questions, leaving them to believe
in market irrationality, or simply "the market doesn't understand my company". The course will be driven by
actual review and evaluation of company financial statements, using of several types of practical financial
analysis methods and tools. The course provides deep insights into the world of investment analysis,
corporate performance measurement, and strategic planning. This course will be useful for MBA candidates
corporate performance measurement, and strategic planning. This course will be useful for MBA candidates destined for higher levers of corporate management, management consulting, investment banking, equity research, or money management. This seminar-driven course is co-designed and co-taught by Dr. Mark L. Frigo, Eichenbaum Foundation Distinguished Professor of Strategy and Leadership, Dr. Keith M. Howe, Scholl Professor of Finance, and Joel Litman, Executive in Residence in The Center for Strategy, Execution and Valuation in the Kellstadt Graduate School of Business and Vice-President in Equity Research at Credit Suisse First Boston. Prerequisites: ACC 500, ACC 555, FIN 555 or instructor consent.

GSB 640
PROBLEMS IN ETHICS: ISSUES IN BUSINESS (CROSS-LISTED AS PHL 640) (PREREQ: GRADUATE STANDING) A seminar in business ethics that centers on theoretical, practical and pedagogical issues. (Cross-listed with PHL 640) Offered variably. PREREQUISITE(S): Graduate Standing.

GSB 641
STRATEGIC VALUATION (PRE-REQUISITES ACC 500, ACC 555, FIN 555 OR INSTRUCTOR CONSENT. This course surveys valuation methods, forecasting techniques, and practical methods for driving valuations from strategic corporate analysis. The course shows the link between strategic analysis and valuations - converting our qualitative understanding of company initiatives into quantitative forecasts and valuation models. The guiding principles for developing valuation models, and the tools and techniques for enhancing that analysis are introduced. This course builds a skillset for evaluating other valuation models and a first-hand experience in building models for various companies in differing settings. The course differs from traditional treatments in its focus on the actual building of valuation models directly from financial statements and the valuation projects based on real-time data. This course is co-designed and co-taught by Dr. Keith Howe and Dr. Mark L. Frigo, and Joel C. Litman, Clinical Professor of Business Strategy at DePaul's Kellstadt Graduate School of Business and Director in Equity Research at Credit Suisse First Boston. They have been combining their efforts in the research, study, and development of business strategy models and frameworks for execution and value-creation and have assisted a wide range of public and private companies in the application of these concepts. Prerequisites: ACC 500, ACC 555, FIN 555 or instructor consent.

GSB 650
RELIGIOUS ETHICS AND ECONOMICS (CROSS-LISTED AS PHL 650 & MLS 442) (PREREQ: GRADUATE STANDING) This course will examine the thinking of social scientists, philosophers and theologians on the impact of religious values and institutions, on the origin and development of American capitalism and its relevance to contemporary business ethics. (Cross-listed with PHL 650 and MLS 442) Offered variably. PREREQUISITE(S): Graduate Standing.

GSB 793
INTERNSHIP This is a unique opportunity in which knowledge gained in the classroom can be applied to an actual business environment. The intern will be immersed in a stimulating environment with a pool of established resources in industry or government. PREREQUISITE(S): Permission.

GSB 798
SPECIAL TOPICS (PREREQ: AS INDICATED IN CLASS SCHEDULE) Content and format of this course is variable. An in-depth study of current issues. Subject matter will be indicated in class schedule. PREREQUISITE(S): As indicated in class schedule.

Greek

Graduate Course Descriptions G Greek

GRK 497
SPECIAL TOPICS IN GREEK
See schedule for current offerings. Graduate standing required.

GRK 498
FOREIGN STUDY  [PREREQ(S): PERMISSION]
Variable credit. Prerequisite(s): permission required. Graduate standing required.

GRK 499
INDEPENDENT STUDY  [PREREQ(S): PERMISSION OF CHAIR & INSTRUCTOR]
Variable credit. Permission of chair and instructor required. Graduate standing required.
Hebrew

HEB 497
SPECIAL TOPICS IN HEBREW
See schedule for current offerings. Graduate standing required.

HEB 498
FOREIGN STUDY [PREREQ(S): PERMISSION]
Variable credit. Prerequisite(s): permission required. Graduate standing required.

HEB 499
INDEPENDENT STUDY [PREREQ(S): PERMISSION OF CHAIR & INSTRUCTOR]
Variable credit. Permission of chair and instructor required. Graduate standing required.

History

HST 421
THE HISTORICAL DISCIPLINE This course introduces students to the fundamental concerns and skills necessary for the study of history at the graduate level. It does this by providing a "history of history," giving students an overview of the growth and development of the academic discipline of history, by addressing issues of methodology, historiography and historical philosophy, and by providing students with an awareness of current concerns, controversies, and debates in the discipline.

HST 422
SEMINAR IN PRIMARY SOURCE ANALYSIS [PREREQ(S): HST 421] This course builds upon HST 421. It focuses on issues raised by the analysis of historical evidence, and exposes students to the many practical and theoretical tools by which historians construct historical knowledge out of this "raw" material. The course will include study of primary sources, methods of analysis and authentication, and ways in which different kinds of sources are integrated into coherent historical narratives. Prerequisite(s): HST 421.

HST 431
COLLOQUIUM IN AMERICAN HISTORY [PREREQ(S): HST 421] PREREQUISITE(S):HST 421 or consent of the instructor.

HST 432
COLLOQUIUM IN LATIN AMERICAN HISTORY [PREREQ(S): HST 421] Prerequisite(s): HST 421 or consent of instructor.

HST 433
COLLOQUIUM IN AFRICAN HISTORY [PREREQ(S): HST 421] PREREQUISITE(S):HST 421 or consent of the instructor.

HST 434
HST 435
COLLOQUIUM IN EUROPEAN HISTORY [PREREQ(S): HST 421] PREREQUISITE(S): HST 421 or consent of instructor.

HST 436
COLLOQUIUM IN ISLAMIC HISTORY [PREREQ(S): HST 421] PREREQUISITE(S): HST 421 or consent of the instructor.

HST 437
COLLOQUIUM IN WORLD HISTORY [PREREQ(S): HST 421] PREREQUISITE(S): HST 421 or consent of the instructor.

HST 438
COLLOQUIUM: SPECIAL TOPICS IN HISTORY [PREREQ(S): HST 421] Prerequisite(s): HST 421 or consent of the instructor.

HST 489
GRADUATE CAPSTONE [PREREQ(S): HST 421] This is an intensive seminar in which students are asked to analyze a number of important works of scholarship drawn from the breadth and complexity of the historical discipline. The course allows students to synthesize the many skills they have learned in their earlier classes, notably the ability to read and assess historical monographs. They will thereby demonstrate their competence in analyzing historical arguments, their knowledge of both historiography and historical content, and their proficiency in understanding the variety of primary sources and methods of interpreting them. Prerequisite(s): HST 421.

HST 492
GRADUATE INTERNSHIP [PREREQ(S): HST 421 & PERMISSION] Internship. Prerequisite(s): HST 421 and permission.

HST 497
INDEPENDENT STUDY [PREREQ(S): HST 421 & PERMISSION] PREREQUISITE(S): HST 421, approval of instructor and graduate director.

HST 499
THESIS RESEARCH (NOTE: MAY BE TAKEN FOR VARIABLE CREDIT) [PREREQ(S): HST 421] Between four and eight hours credit to be determined by the department. Prerequisite(s): HST 421.

HST 500
CANDIDACY CONTINUATION Required of all students who are not registered for regular courses but who occasionally utilize University facilities during completion of course requirements and/or research. Non-credit. $40.00 per quarter.

Human-Computer Interaction

Graduate Course Descriptions Human-Computer Interaction

Human-Computer Interaction

HCI 402
FOUNDATIONS OF DIGITAL DESIGN Shape, line on two-dimensional surfaces. Color. Composition rules as they apply to digitally created documents. Digital manipulation of two-dimensional images. Use of commercially available draw and paint tools to create two-dimensional designs.

HCI 422
MULTIMEDIA Multimedia interface design. Underlying technological issues including synchronization and coordination of multiple media, file formats for images, animations, sound and text. Hypertext. Information organization. Survey of multimedia authoring software. Topics in long distance multimedia (World Wide Web). Students will critique existing applications and create several multimedia applications. **PREREQUISITE(S):** HCI 440 or consent of the instructor.

HCI 423
INTERNET MULTIMEDIA (Cross-listed as ECT 423) Design and prototyping of multimedia applications for delivery via the Internet. Survey of low-bandwidth file formats for images, sound, and animation. Bandwidth reduction techniques and tools. Discussion of client side and server side allocation of responsibility. Authoring tools. Students will create and evaluate several small applications. **PREREQUISITE(S):** HCI 440 or ECT/HCI 441.

HCI 430
PROTOTYPING AND IMPLEMENTATION Introduction to creating executable prototypes for interactive systems. Overview of modern user interface programming tools. The emphasis is on creating testable prototypes and evaluating them using technologies such as VB.NET and Access. Both stand-alone and Web-based applications are addressed. Students create a prototype for a predefined system, evaluate the prototype, redesign the system as necessary, and convert it to a final working system. Students prepare written documents describing their activities and present the final results to the class. **PREREQUISITE(S):** IT 236 and HCI 440.

HCI 432
USER-CENTERED WEB DEVELOPMENT Analysis, design, and development of interactive web sites. Advanced application of HTML and style sheets for user-centered design. Survey of client-side technologies for interactive Web use. **PREREQUISITE(S):** IT 130.

HCI 440
USABILITY ENGINEERING The user-interface development process. Introduction to methods for practicing user-centered design including user and task analysis, user interface design principles and testing using low-fidelity prototypes. **PREREQUISITE(S):** IT 130 or Graduate Standing.

HCI 445
INQUIRY METHODS AND USE ANALYSIS This course provides students with the skills necessary to acquire and organize user information for the purpose of developing task and systems analyses. Topics covered include survey construction and administration, structured observation, interviewing, and participatory design. Students learn to evaluate and organize user information toward making analysis and design decisions. Human communication and presentation skills are developed. **PREREQUISITE(S):** IT 223.

HCI 450
FOUNDATIONS OF HUMAN-COMPUTER INTERACTION Application of engineering and psychological theory to the design of computer systems. Overview of applicable research methods. Sensation, cognition, decision making, display and control design. Overview of workspace design including biomechanics, work physiology, stress and workload. **PREREQUISITE(S):** IT 223.

HCI 454
INTERACTION DESIGN Information architecture and interactive page design. Perception and use of menus, labels and user controls. Structuring information for navigation and presentation. Selecting and placing user controls for optimizing task flow on pages and across pages. Creating wire frames and using content managers. **PREREQUISITE(S):** HCI 440.

HCI 460
USABILITY EVALUATION METHODS Survey of evaluation methods that can be applied to user interfaces. Methods include expert inspections, walkthroughs, usability testing and analytical approaches. Students evaluate existing systems by applying some of these methods. **PREREQUISITE(S):** IT 223 and HCI 440.

HCI 470
DIGITAL PAGE FORMATTING I Problem-based applications of perceptual and communication principles to the presentation of on-line and off-screen pages. Includes experience with industry standard vector, raster and formatting software. **PREREQUISITE(S):** HCI 402, ART 105, or equivalent.

HCI 471
DIGITAL PAGE FORMATTING II Client-based applications for formatting in multi-page screen environments. Includes experience with industry standard multi-media software. **PREREQUISITE(S):** HCI 470.
HCI 511 
DESIGNING FOR DISABILITIES Designing computer-based solutions for problems faced by people with disabilities. Designing for both physical and cognitive disabilities. Solutions include text enlargement, enhanced audio, custom presentation of information, and unique input devices. PREREQUISITE(S): HCI 440 and HCI 460.

HCI 512 
DESIGNING FOR VISUALIZATION Sources of graphical integrity and sophistication. Data-Ink maximization. Data density. Color and information. Effective use of space and time. PREREQUISITE(S): HCI 440 and HCI 460.

HCI 513 
DESIGN/STRATEGIES FOR INTERNET COMMERCE (Cross-listed with ECT 555) An integrated study of design, technical, and strategic issues for Internet commerce. Web analysis, design and publishing. Visual, textual and content organization, response time, usability testing. Authorizing tools and administering web server. Internet database servicing. Internet service providers and pricing. Digital cash and encryption. Impact on the value chain, intermediation, and market structure. Strategies for mass customization, interactive marketing, and support for collaborative work. PREREQUISITE(S): ECT 353 and IS 422, or HCI 430, or advanced standing in another program.

HCI 530 
USABILITY ISSUES FOR HANDHELD DEVICES This seminar will cover the theoretical and practical issues of usability for handheld devices (cell phones and PDAs). Students will analyze how restricted displays and input modalities constrain applications on these platforms, and how these constraints factor into the design process. PREREQUISITE(S): HCI 440 and HCI 430 or CSC 418.

HCI 540 
USER INTERFACE IMPLEMENTATION I Converting prototypes into running systems. The focus is on using a User Interface Management System, learning the underlying programming language, and the underlying programming environment. Students work on a project that requires pushing the UIMS beyond its normal limits. TAE+, Galaxy, DevGuide, C, C++, Tcl/tk. Students present their final results to the class. PREREQUISITE(S): CSC 418 or HCI 430.

HCI 590 
TOPICS IN HUMAN-COMPUTER INTERACTION HCI topic varies with offering. Contact instructor for more information. PREREQUISITE(S): Completion of the HCI core courses or consent of the instructor. May be repeated for credit.

HCI 594 
HUMAN-COMPUTER INTERACTION CAPSTONE HCI 594 provides an opportunity for students to apply all of the skills they have learned on one comprehensive project. Multidisciplinary teams design, evaluate, and implement a user interface intensive project. Students prepare written documents describing their activities and present the final results to the class. PREREQUISITE(S): Completion of the HCI core courses or consent of the instructor.

HCI 599 
INDEPENDENT STUDY This is an independent study course. PREREQUISITE(S): Completion of the HCI core courses and consent of the instructor. May be repeated for credit.

HCI 690 
RESEARCH SEMINAR PREREQUISITE(S): Instructor consent.

Human Development and Learning
HDL 500
INTEGRATIVE SEMINAR (0 credit) This seminar provides students with the opportunity to explore the subjective experiences of teaching and learning. Modeled after Donald Schon’s "reflective practice" approach, participants experience, through personal reflection, how deeply involved they are in the learning situation they seek to understand and influence. It is through reflecting on the nature of the experiences that the participants begin to explore how school experience is formed and shaped.

HDL 501
INVESTIGATIONS IN HUMAN DEVELOPMENT AND LEARNING Each student's own place of work constitutes the primary context of these investigation studies. Through such means as personal observation and examined experience, each student will complete a project which examines the interaction between human development and cultural contexts, with implications for learning and being an educational leader.

HDL 502
INDEPENDENT STUDY IN HUMAN DEVELOPMENT AND LEARNING (PREREQ.: PERMISSION) PREREQUISITE(S): Permission of the instructor.

HDL 510
PERSONALITY DEVELOPMENT AND DIFFERENCE This class examines the course of personality development from infancy through the ages, drawing upon contemporary psychoanalytic formulations, developmental research findings, and cultural studies, as lenses through which to view behavior and understand meaning. For education, the course emphasizes facilitating the emerging of a sense of self that is vital and effective, and flexible in interpreting experiences of self and difference in the world.

HDL 520
LIFE COURSE PERSONALITY DEVELOPMENT This class examines the course of personality development from infancy through older adulthood, drawing upon contemporary psychoanalytic formulations and findings of developmental research as lenses through which to view behavior, understand developmental processes, and as perspectives applicable to the process of education. A portion of the class is reserved for seminar participants to examine human development based on case studies of personal observations and experiences.

HDL 530
THE LEARNING PROCESS: PSYCHOLOGICAL AND NEUROLOGICAL ISSUES The major forms of learning difficulties encountered among children are addressed, including those resulting from social, emotional, neurological or cognitive factors. Implications for educational planning is emphasized.

HDL 540
SUBJECTIVITY AND LEARNING This course focuses on understanding the subjective aspects of experience and the impact on learning. Issues related to emotional, social and behavioral functioning will be addressed as they relate to cognition, curriculum, climate, and relationships. Psychoanalytic theories and techniques will provide a foundation for this process. Implications for the child, family, teacher and principal will be considered.

HDL 550
THE FAMILY AND LIFE COURSE DEVELOPMENT This seminar provides an introduction to the study of the family as a social system and the processes through which families influence behavior. Students focus on developing skills in understanding patterns of interaction and in identifying ethnic, cultural and other unique sources of variation.

HDL 560
DYNAMICS OF GROUPS AND ORGANIZATIONS This course examines the psychosocial dynamics of behavior in groups and the impact on the development of organizations. Principles of children and adult groups within diverse contexts are examined with implications for learning and leading. Attention is also given to the development of skills associated with understanding group processes within educational contexts, complete with the influence of individuals on group processes, and the influence of group membership on individual behavior.

HDL 599
THESIS RESEARCH IN HUMAN DEVELOPMENT AND LEARNING (PREREQ.: SCG 410/APPROVAL) A student writing a thesis registers for this course for four quarter hours of credit. Where the thesis research and the writing of the thesis itself are prolonged beyond the usual time, the program advisor may require the student
writing of the thesis itself are prolonged beyond the usual time, the program advisor may require the student to register for additional credit. **PREREQUISITE(S):** SCG 410 and approved thesis proposal.

**HDL 600**
REGISTERED STUDENT IN GOOD STANDING (0 credit) This registration is required of all students who are not enrolled in a course but are completing course requirements and/or research. It provides access to University facilities. $50 fee per quarter.

**HDL 601**
PRACTICUM IN HUMAN DEVELOPMENT AND LEARNING (PERMISSION REQUIRED) This practicum provides opportunities for students to experience the range of issues related to human development and learning in a different context. **PREREQUISITE(S):** Permission of the instructor.

**HDL 606**
REVIEW OF LITERATURE (0 credit) This paper will give students the opportunity to develop and demonstrate written competence in a subfield of their discipline and to enhance life-long learning. Specifically, they will broaden their knowledge base and inform themselves about a topic, issue, theory, etc., reviewing and synthesizing existing literature. To do so, students will need a variety of bibliographic skills including searching data bases.

**HDL 607**
INTEGRATIVE PAPER (0 credit) Students will observe and/or participate in the reciprocal interaction of theory and practice, by investigating actual practice in the field as it related to theory. This might take the form of investigating how a particular theory is applied in the field, developing a practical application of theory or conversely, developing/refining a theory based on investigations made in the field.

**Human Services and Counseling**

Graduate Course Descriptions

**Human Services And Counseling**

**HSC 400**
TECHNOLOGY IN COUNSELING (PREREQUISITE IS NEW STUDENT ORIENTATION) This course will introduce students to technology used in counseling. Focus will be on the use and selection of appropriate software and electronic resources for counseling. Attention will be paid to evaluative criteria to assess utility. (prerequisite New Student Orientation)

**HSC 404**
CHILD GROWTH AND DEVELOPMENT: THE EARLY YEARS Students will examine theories and research related to the physical, emotional, social, cognitive and spiritual development of young children from conception to age eight with emphasis placed on the first three years of life. Within a multicultural perspective, students will develop skills and understandings that will help them delineate supports and challenges for healthy child growth and development within the social context of the families and communities in which young children live.

**HSC 405**
LIFE SPAN: ADOLESCENTS THROUGH THE AGING YEARS This course focuses on the dynamics of adolescent and adult growth and development from spiritual, biosocial and psychological perspectives. It will provide basic processes for intergenerational programming in early childhood education. It focuses on community referral skills for those persons proceeding toward aging as well as the identification of developmental needs with adolescents and adults. Emphasis is placed on attitudes of adolescents to aging as well as the identification of developmental needs throughout this time of the life cycle. Attention is paid to specific developmental counseling skills needed to meet these needs.

**HSC 406**
CHARACTERISTICS OF THE HIGH-RISK YOUNG CHILD Students will examine the predictors and consequences
of developmental risk in early childhood and contrast the concept of risk with the status of developmental delay or disability. The distinctions among established risk, biological risk or medical risk, environmental risk, and the cumulative effect of multiple risk factors will be illustrated. An ecological approach to describing developmental risk and options for intervention and/or education will be introduced and practiced. Specific areas of environmental risk will be examined in detail, with consideration of the impact on the young child's development. These will include the effects of poverty, chronic illness, adolescent parenting, child abuse, parental mental illness and/or substance abuse and siblings with disabled or chronically ill child.

HSC 407
HISTORY AND ETHICS OF EARLY CHILDHOOD COUNSELING PROGRAMS Students will trace the evolution of early intervention programs through historical and philosophical writings. Content included will be descriptions of theoretical models that form the basis of early intervention practices today. Central early intervention issues such as ethics, parent partnerships, service delivery options, transdisciplinary team functions, multicultural factors and social policy will be emphasized.

HSC 408
EARLY INTERVENTION STRATEGIES AND CHILD RELATIONSHIPS This course will focus on the normal development from conception through infancy to age five years. Emphasis will be placed on the biological and environmental factors that may place children at-risk, physiologically, emotionally, intellectually or socially at different stages of their development. Attention will be given to the importance and mutuality of the relationship between the infant and the primary caregiver. Issues related to the infant's temperament and parent's response to infants with special needs will be addressed. The implications for center and home based early intervention programs, including early intervention strategies and techniques, will be discussed.

HSC 409
CHILD, FAMILY AND MULTICULTURAL COMMUNITY (COREQUISITE(S) T&L 401 FOR ECE AND T&L STUDENTS) This course focuses on the development of the child from infancy through early childhood, within the context of the particular family and culture in which the child is being raised. Social systems, psychodynamic and developmental theories will be utilized in this course. Emphasis will be placed on the unique role the varying family structures, cultural norms and community environments can play in the growth and development of the child. Particular attention will be paid to the challenges faced by teachers and other professionals in early intervention in assessing children's need and providing services which are reflective of the child's development within his/her cultural nad community context. Emphasis will be on building those family, institutional and community partnerships what will support the healthy growth and development of young children, in the IFSP planning process. COREQUISITE(S): T&L 401 for ECE and T&L students.

HSC 410
ADMINISTRATION/SUPERVISION OF HUMAN SERVICES AND COUNSELING PROGRAMS This course focuses on issues of administration and supervision in agency, public and private schools and other settings for families of infants, toddlers and young children with special needs. Particular attention will be given to transdisciplinary team membership, team development, clinical supervision models, parent partnerships and differentiated staffing issues. Management processes such as procedures for decision making, resource management, space, licensing and accreditation will be incorporated. Concern for child advocacy processes in administration will be included.

HSC 440
FAMILY AND CHILD ASSESSMENT TECHNIQUES Students will participate in the study, use and evaluation of early childhood assessment, methods and tools that are appropriate for young children of different ages from culturally and socio-economically diverse backgrounds. Ways of involving parents in early childhood assessment will be stressed, particularly in video-conferencing parents and their developmental parenting skills with their children, case histories, case conferences and home visits. How to observe and assess children individually, in groups and in their family systems will be included. Clarification of roles on a transdisciplinary team assessing the child will be made. Emphasis on assessment of play-based techniques will be included. Networking with community services after assessment will be explored. (This course is taught on site at Maryville, working directly with children.)

HSC 451
LEGAL AND ETHICAL ISSUES IN COUNSELING Professional counseling involves an interplay of ethics, personal values and legal implications of practice. This course initially attempts to focus on personal values and allows for the student to reflect upon his/her personal value systems. Several ethical codes related to the profession are studied so that the students will have the knowledge of professional ethical practice. An examination of local and federal laws regarding the interplay of these three components will be examined. The students, in the course, will engage in small groups, value clarification exercises, role-playing with
The students, in the course, will engage in small groups, value clarification exercises, role-playing with lectures, video technology and guest speakers.

HSC 452
INTRODUCTION TO THE COUNSELING PROFESSION Upon completion of this course each student will be able to: 1) analyze human service organizations in terms of their mission, vision, beliefs, current goals and strategies, organizational culture, organizational structures and leadership; 2) utilize visionary, strategic and operational planning processes to develop and organize a human services organization; 3) design various assessments of service outcomes of human services organizations; and 4) judge his or her effectiveness as a member of both a learning community and planning team.

HSC 453
HISTORICAL AND DIVERSE SOCIAL FRAMEWORKS IN HUMAN SERVICES AND COUNSELING Upon completion of this course each student will be able to: 1) develop an expanded/transformed vision of himself or herself as both a person and as a human services professional from that which she or he had at the beginning of the course; 2) relate his or her personal and professional development to popular theories of life and career development; 3) evaluate his or her performance in a life and career counseling experience both as a client and as a counselor; 4) establish both a professional network of colleagues and a professional library of human services information which will be of use in future human services work; and 5) understanding of ethics in counseling profession.

HSC 454
CAREER COUNSELING Ways to assist the individual to choose, prepare for and progress in a career. Vocational testing, sources for occupational information are described. Computer guidance programs designed for career exploration will be studied. Also, the study of vocational behavior in relation to career patterns with special attention to the analysis of empirical data and theories pertaining to vocational choice will be considered.

HSC 455
THE ADMINISTRATION OF HUMAN SERVICES AND COUNSELING PROGRAMS The administration of human services programs, an interdisciplinary approach to meeting needs, describes how administrators and counselors can develop skills and competencies to employ, assign and supervise their staff. An analysis of various supervisory techniques is made.

HSC 456
COUNSELING THE COLLEGE-BOUND STUDENT Designed to assist professionals in the human services and counseling areas in formulating a deeper perspective of the college counseling process. The use of profile types of colleges and admission procedures, testing, scholarships, advance placement, the preparing of the school report and many other items will be included in the instruction. The workshop approach will be used in the final two weeks of the course to put into practice concepts, skills and techniques learned earlier.

HSC 457
SEMINAR: IMPROVING PARENT-CHILD RELATIONSHIPS

HSC 458
GROUP COUNSELING Study and ethics of group process, group theories, problems such as conflict resolution, leadership and membership styles re-examined. The class engages in a regular group experience. Opportunity to observe and participate in group work is provided. Criteria and formulation for conducting workshops with group process is considered.

HSC 459
CLINICAL STUDIES IN HUMAN SERVICES AND COUNSELING (PREREQUISITE(S): HSC 459) The purpose of this course is to provide students with opportunities to 1) develop and refine counseling skills; 2) to study the format of case studies; 3) conduct individual assessments under supervision; 4) familiarize themselves with Human Service agencies in the Chicago area. Through the use of videotapes, role playing and other techniques, student will be given direct feedback as to their performance of counseling skills. The course requires extensive field work. PREREQUISITE(S): HSC 467 and advanced standing in the program (completion of 6 or more courses in the HSC program).

HSC 460
GUIDANCE IN THE ELEMENTARY SCHOOL Guidance in the Elementary School. A study of the philosophy, concepts and rationale which undergird elementary school guidance. Principles and practices as they relate to the guidance program are presented. The student is acquainted with the role of the counselor and is introduced to the various facets of the elementary school program. Attention is given to the development of guidance techniques in the classroom and group guidance.
HSC 461  
TESTING AND APPRAISAL Detailed analysis of intelligence, aptitude, personality, and achievement tests used with groups and individuals. The course is intended to familiarize students with various appraisal procedures and their utilization. Attention is given to the development of the institutional testing program.

HSC 462  
COUNSELING THEORY AND PRACTICE FOR HUMAN SERVICES Counseling Theory And Practice For Human Services

HSC 463  
TECHNIQUES OF HUMAN SERVICES AND COUNSELING IN ELEMENTARY/MIDDLE SCHOOL A study of the philosophy, concepts and rationale which undergird elementary school guidance is known by the student. Principles and practice as they relate to the guidance program are presented. The student is acquainted with the role of the counselor and is introduced to the various facets of elementary school program including family partnerships, violence prevention, grief counseling and career guidance. Attention is given to the development of guidance techniques in child and art therapy, groups, and classroom.

HSC 464  
CONSULTING IN HUMAN SERVICES Various models of consultation will be explored in Human Services. Use of case studies, role-playing, visits to human service agencies using the consultation process to observe the consultant's role will be included. Stress on the facilitation of communication and dynamics in interpersonal relationships will be emphasized.

HSC 465  
PRINCIPLES AND PRACTICES OF HIGHER EDUCATION PERSONNEL This course will include an overview of principles and practices of higher education personnel work, with an emphasis on management theories and strategies. Selected topics, issues and services will be presented by professionals in higher education. This course will also be concerned about international and multicultural student issues.

HSC 466  
ASSESSMENT AND TREATMENT OF CHEMICAL DEPENDENCY This course seeks to develop skills and understandings relevant to the assessment and treatment of chemical dependency. The major alternative assessment approaches and treatment interventions for chemical dependency are surveyed and analyzed.

HSC 467  
COUNSELING THEORIES The purpose of this course is to review counseling theories from affective, non-directive approaches to cognitive and behavioral approaches. The humanistic and existential frameworks in counseling will be reviewed. Techniques and process derived from these various counseling frameworks will be used in classroom laboratory experiences with use of follow-up videotaping assignments. Models of normalcy as well as knowledge and use of the DSM IV-R (2000) and review of psychopathology, highlighting neurotic personality disorders will be considered. In counseling children, play and art therapy processes will be applied.

HSC 468  
CURRENT ISSUES IN HUMAN SERVICES Topics related to early childhood intervention and family issues, such as bonding and attachment, child abuse, neglect, incest, parents' needs and infants, prenatally-exposed children-at-risk, fathers and babies, as well as other current topics will be presented in a high involvement and in-depth seminar format, including outside speakers and tours. Each seminar will include assigned readings, paper and opportunities for students to link their conceptual understanding to practical experience. Four seminars will be required to fulfill course requirements.

HSC 475  
CAREER COUNSELING FOR SCHOOL COUNSELORS This course will provide an introduction to career counseling in a school context. Focus will be on increasing students' knowledge of the world of work, career theories, and related life influences. The ASCA model for K-12 programs and interventions will be integrated throughout this course.

HSC 480  
INTRODUCTION TO HEALTHY AGING FRAMEWORKS Introduction To Healthy Aging Frameworks

HSC 481  
ASSESSMENT AND COUNSELING TO HEALTHY AGING AND FAMILIES Assessment and Counseling to Healthy Aging And Families
Aging and Families. This course will provide an overview of counseling skills, group processes and family therapy skills that will facilitate healthy aging persons and their families with intergenerational communication. Different approaches to enhance interdependence and support including peer group counseling with cohorts, Life Review and Early Recollection assessment, as well as social network interventions will be introduced. Multicultural awareness, both in assessment (DSM IV, 1994) and family systems will be highlighted. Leisure, stress management and spiritual in the lives of the healthy aging will be discussed.

HSC 482
MEETING THE HEALTH NEEDS OF OLDER ADULTS Meeting The Health Needs Of Older Adults

HSC 483
AGING, HUMAN DEVELOPMENT AND HOLISTIC WELLNESS Aging, Human Development and Holistic Wellness. Adult and aging human development will be examined for adults 55 and older. There will be a particular emphasis on motor development and changes in motor behavior over the lifespan and the process that affect them. Physical, affective and social factors, along with functional neurological changes, will be addressed for a holistic view of the aging person. Plato calls it “functional unity.” Discussion about myths and misperceptions of older adults will be included. A variety of fitness testing techniques will be presented for students to experience, both as a test administrator and someone being tested. Nutritional, social, medical aspects as well as recreational exercise and fitness will also be included.

HSC 484
CURRENT ISSUES IN HEALTHY AGING Current Issues In Healthy Aging

HSC 485
MEETING THE HEALTH NEEDS OF OLDER ADULTS Meeting the Health Needs of Older Adults. This course will provide an overview of key health issues faced by older adults and their families. There will be a study of approaches to identification and measurement of health needs. There will be discussions of appropriate clinical care professionals and settings for the diagnosis and treatment of common chronic health problems of older persons. Analysis of ethical issues related to the treatment of chronic and acute illness in older adults will be discussed. The topics will be discussed would include brain and psychological aspects in organic brain syndromes including Alzheimer's disease, acute, chronic and terminal illness, substance use and abuse, multicultural sensitivities to caring for the Aging, polypharmacy assessment, home visits and community partnerships was well as strategies in long term care and support systems for the caregiver.

HSC 486
PRACTICA IN HUMAN SERVICES AND COUNSELING

HSC 487
INTRODUCTION TO HEALTHY AGING FRAMEWORKS Introduction to Healthy Aging Frameworks. This course will present evolving theories that focus on the healthy aging population. The demographics of aging including societal views of European, Latino, Asiatic, and American cultures will be examined. Historical and cultural philosophies of teaching the elderly will be included. Developmental frameworks including stage and role theories of the aging will be discussed. A section on expanding viewpoints on aging will examine the needs, roles and rights of the aging, the role of government in the care of the aging, health care's responsibility and community partnerships, and the ethical dilemmas for caregivers regarding the care of the aging person.

HSC 489
PSYCHOPATHOLOGY This course will focus on a continuum of mental health with an emphasis on neurotic and psychotic deviations. Specific models and methods for assessing mental status, identification of abnormal, deviant or psychopathological behavior will be presented. The use of DSMIV-R (2000) ad Zero to Three Diagnostic Classification with its diagnostic categories will be utilized for assessment methodology. Specific attention will be given to diverse cultural perspectives in diagnosis and assessment.

HSC 490
FOUNDATIONS OF STUDENT AFFAIRS The course examines historical and philosophical elements relative to the role of student affairs in higher education as well as the impact of changing demographics on current trends pertinent to the management of student affairs. The course also provides students with theoretical and practical knowledge about organization structure, services, and faculty/staff/administrative functions in student affairs.
CONTEXTUAL DIMENSIONS, KNOWLEDGE AND SKILLS IN STUDENT AFFAIRS This course will examine the impact of institution mission and state and national policies on access, retention and graduation rates. Organizational change, decision making and conflict resolution strategies will be explored within the context of strategic planning, organizational structure and leadership styles and management. Personnel selection, management theories and performance evaluations will also be studied. Various assessment practices will be reviewed and analyzed. Within this framework, student demographics, campus culture and student development theory (traditional and contemporary) will be examined.

HSC 492
PROGRAM DEVELOPMENT IN STUDENT AFFAIRS This course will explore models for designing, managing, and evaluating student affairs programs, including the use of technological applications. Students will become familiar with models and methodologies of program development and implementation in higher education and will understand how to use professional standards and other resources for program development.

HSC 500
COMMUNICATION STRATEGIES FOR EFFECTIVE HUMAN INTERACTION Communication strategies for effective human interaction

HSC 501
COUNSELING SKILLS This course examines oral communication skills as a dynamic in human relations. Through videotapes, role-playing and a variety of activities and experiences, students will explore ways to improve their own communication and counseling skills using the Ivey intentional interviewing approach. Feedback is given to the students, both in laboratory classroom exercises and in viewing videotape sessions. Skills emphasized include perception, verbal and nonverbal language, accurate and empathetic listening skills, focusing, thematizations, confrontation, conflict resolution and a process of directionality for change.

HSC 510
MULTICULTURAL COUNSELING This course will assist students in understanding the need for formulating and implementing counselor/consultant roles with diverse communities. Attention will be on the students' integration of awareness, knowledge, attitudes, insights, and cultural identities. Moreover, students will develop the skills and expertise necessary for effective counseling and collaboration in a multicultural milieu.

HSC 511
SUPERVISION This course will be an introduction to the theory and practice of supervision in the counseling profession. There will be a focus on the basic skills necessary for effective supervision of counselors. (prerequisite HSC 451, HSC 452, HSC 467, HSC 501, HSC 458)

HSC 512
CRISIS INTERVENTION (PREREQUISITES: HSC 451, HSC 452, HSC 467, HSC 501, HSC 458) This course will provide students with an understanding of the individual in crisis. Focus will be on the common characteristics and manifestations of crisis and address methods and techniques of crisis intervention. (prerequisites HSC 451, HSC 452, HSC 467, HSC 501, HSC 458)

HSC 513
CONSULTATION FOR COUNSELORS This course will focus on the theory, techniques, practice and skill development needed to effectively provide consultation in communities and schools. Emphasis will be on the application of consultation and the role of the consultant. (prerequisites HSC 451, HSC 452, HSC 467, HSC 501, HSC 458)

HSC 519
SPECIAL EDUCATION: LEGAL AND PROFESSIONAL ISSUES FOR SCHOOL COUNSELORS This course will introduce students to special education law including relevant statutes, cases, and regulations. Students will also learn about the development, monitoring, and implementation of IEPs. In addition, this course will address the student counselor's potential role in the evaluation, referral, monitoring, and consultation of student with special needs. (prerequisites HSC 451 and HSC 452)

HSC 520
COUNSELING CHILDREN AND ADOLESCENTS This course will consider the theoretical foundations of working with children and adolescents. It will address developmentally appropriate counseling perspectives and interventions. Emphasis will be on the child/adolescent in various systemic contexts, family as consultant and collaborator, multicultural factors, specific child/adolescent problems, and resiliency. In addition, professional issues will be addressed. (prerequisites HSC 451, HSC 452, HSC 467, HSC 501, HSC 458)
HSC 521
CONTEXTUAL DIMENSIONS OF SCHOOL COUNSELING This course will address the role of the school counselor and provide an understanding of the coordination of counseling program components as they relate to the school and the wider communities. Students will explore the various roles of the school counselor as advocate, coordinator, teacher, programmer, consultant, information and referral agent, and counselor. The ASCA developmental approach to school counseling will be introduced and integrated throughout.

HSC 522
DELIVERY OF DEVELOPMENTAL AND PREVENTION SCHOOL COUNSELING PROGRAMS (PREREQUISITES: SEE DESCRIPTION) This course will focus on the comprehensive development, delivery, and evaluation of school counseling programs based on the “Best Practices” model of the state and the three ASCA model domains: academic development, career development, and personal/social development. Students will learn strategies to integrate school counseling programs into the total school curriculum, to promote the use of counseling activities and programs, to plan for and present school counseling-related educational programs, and to gain knowledge of prevention and crisis intervention strategies. (Prerequisites HSC 451, HSC 452, HSC 467, HSC 501, HSC 458; 461; HSC 521)

HSC 523
LEARNING AND CLASSROOM MANAGEMENT FOR SCHOOL COUNSELORS This course will explore learning frameworks in education such as constructivist approaches, social-cultural learning, and the zone of proximal development as well as behavioral learning contracts. The history of learning approaches will be covered particularly in the 19th and 20th centuries to assist the school counselor in relationship to educators in the school community. Classroom management models and theories of inner discipline and consistency management will be discussed so that the school counselor will be able to assist educators and parents in home-school management of youth.

HSC 551
RESEARCH SEMINAR IN HUMAN SERVICES AND COUNSELING Research seminar in Human Services and Counseling

HSC 552
PRACTICUM Practicum In Human Services and Counseling

HSC 553
INTERNSHIP IN HUMAN SERVICES AND COUNSELING I After the completion of fifteen courses, and consultation with one’s advisor, the student-intern is assigned to an early childhood setting including schools, agencies, centers for young children. The student-intern functions under the joint supervision of a professionally qualified setting supervisor and a University clinical experience director for 150-300 clock hours of internship experience. A structured contract will include structured experiences expected of the student from both the setting and the University, signed by all parties, and used as an evaluative tool for the internship. During the internship the student-intern will complete a thesis/research project as part of the requirement for the Master of Arts degree. The thesis/research project is approved jointly by the internship supervisor and clinical experiences director. Ongoing reflective seminars will be part of the internship experience related to early childhood topics and counseling skills and processes.

HSC 554
INTERNSHIP IN HUMAN SERVICES AND COUNSELING II This course is a continuation of Internship I. The student-intern continues with 150-300 clock hours experience under supervision of the setting supervisor and University clinical experience director using a structured contract. The thesis/research project using action-oriented research processes is completed and orals are required for the student seeking an M.A. degree.

HSC 555
HUMAN SERVICES AND THE AGING PROCESS Human Services And The Aging Process

HSC 556
COUPLES AND FAMILY COUNSELING This course focuses on providing theoretical formulations and practical illustrations applicable to the practice of marriage and family counseling. Students engage in role-playing, case study, and observation of counseling techniques. Skills expected in this course include understanding the process of marriage and family counseling and understanding the role of the counselor in the marriage and family setting. Students will learn to develop effective marriage and family strategies, and to conduct complete case analysis.
INDEPENDENT STUDY IN HUMAN SERVICES AND COUNSELING (PREREQ: CONSENT OF INSTRUCTOR, CHAIR & ASSOC DEAN) PREREQUISITE(S): Permission of instructor, program chair and associate dean.

HSC 558
THESIS RESEARCH IN HUMAN SERVICES AND COUNSELING (PREREQUISITE(S): SCG 410 AND APPROVAL OF THESIS) A student writing a thesis registers for this course for four quarter hours of credit. Where the thesis research and the writing of the thesis itself are prolonged beyond the usual time, the program advisor may require the student to register for additional credit. PREREQUISITE(S): SCG 410 and approved thesis proposal.

HSC 560
PHYSICAL AND SEXUAL ABUSE OF CHILDREN Physical And Sexual Abuse of Children

HSC 562
PRACTICUM IN HUMAN SERVICES AND COUNSELING-ELEMENTARY Practicum in Human Services and Counseling - Elementary

HSC 569
THESIS RESEARCH IN MANAGING THE HUMAN SERVICES Thesis research in managing the human services

HSC 572
PRACTICUM IN HUMAN SERVICES/COUNSELING- AGENCIES, HIGHER EDUC, FAMILY CONCERNS Practicum In Human Services/Counseling- Agencies, higher Educ, Family Concerns

HSC 582
PRACTICUM IN MANAGING THE HUMAN SERVICES Practicum in managing the human services

HSC 600
REGISTERED STUDENT IN GOOD STANDING (0 credit) This registration is required of all students who are not enrolled in a course but are completing course requirements and/or research. It provides access to University facilities. $50 per quarter.

HSC 602
HUMAN SERVICES IN THE REPUBLIC OF IRELAND Human Services In The Republic Of Ireland

HSC 606
REVIEW OF LITERATURE This paper will give students the opportunity to develop and demonstrate written competence in a subfield of their disciplines and to enhance life-long learning. Specifically, they will broaden their knowledge base and inform themselves about a topic, issue, theory, etc., reviewing and synthesizing existing literature. To do so, students will need a variety of bibliographic skills including searching data bases. In other words, students will be able to ask and answer such questions as "What is known about? What are major issues and themes?"

HSC 607
INTEGRATIVE PAPER Students will observe and/or participate in the reciprocal interaction of theory and practice, by investigating actual practice in the field as it relates to theory. This might take the form of investigating how a particular theory is applied in the field, developing a practical application of theory, or, conversely, developing/refining a theory based on investigations made in the field. In other words, as graduates encounter new theories and practices they will need to be able to investigate and evaluate the, asking and answering questions about "how theories work."

HSC 608
CAPSTONE IN HUMAN SERVICES AND COUNSELING Culminating experience(s) that help(s) students acquire the qualities of professionalism and leadership needed to play a significant role in one's professional education community. Students are expected to situate and understand educational issues in a larger context; keep current in and be able to organize and present a body of research on an education-related question; connect research with practical, professional activity; demonstrate mastery of a sub-field of a discipline; write in a format that meets accepted scholarly criteria and participate in an ongoing professional conversation. A final product such as master's paper(s), comprehensive exam, or collection of professional work products is required.

HSC 658
PERSONNEL SERVICES IN BASIC ADULT EDUCATION Personnel Services In Basic Adult Education
HSC 659
COUNSELING IN BASIC ADULT EDUCATION Counseling in basic adult education

HSC 95
CLINICAL ORIENTATION Students will be oriented to the expectations and requirements of the practicum and internship experiences in Human Services and Counseling

HSC 96
CLINICAL APPLICATION This milestone course ensures that all students have met the requirements clinical placement.

HSC 97 CLINICAL PLACEMENT This milestone course ensures that students have secured a clinical placement that fulfills all requirements for Human Services and Counseling Program.
Information Systems

IS 421
INFORMATION SYSTEMS ANALYSIS Introduction to the systems analysis phase of the software development life cycle. Emphasizes feasibility analysis, information gathering, process modeling, data modeling, and requirements definition. Topics and team project tasks include CASE tools, RAD, JAD, work flow diagrams, entity-relationship diagrams, data flow diagrams, and object oriented modeling. Students are strongly urged to take IS 421 and IS 422 in consecutive quarters. PREREQUISITE(S): CSC 212 or CSC 224.

IS 422
INFORMATION SYSTEMS DESIGN Introduction to the systems design and implementation phases of the software development life cycle. Emphasizes techniques for developing a logical and physical design from a systems analysis. Topics and team project tasks include CASE tools, object oriented modeling, structure charts, action diagrams, interface design, prototyping, testing, implementation, and maintenance. Students are strongly urged to take IS 421 and IS 422 in consecutive quarters. PREREQUISITE(S): IS 421.

IS 425
ENTERPRISE INFORMATION This course focuses on the interrelationships and methods used by information systems groups to meet the information needs of enterprises. The course starts with an examination of the basics of enterprises information needs: the role of the value chain, the profit paradigm, and information infrastructure flows are explored. Then attention turns role of software methods, programming and security as supporting technologies. Topics include enterprise systems, commerce systems, project management, sourcing decisions, IT risk management, services and operations performed. PREREQUISITE(S): IT 215 or SE 325.

IS 430
FUNDAMENTALS OF IT PROJECT MANAGEMENT This course concentrates on monitoring, managing and controlling project resources other than internal staff. Risk management, procurement and contract management, time and cost estimating, controlling and tracking techniques, quality assurance, testing and audit. Students will use MS Project for resource allocation and balancing. PREREQUISITE(S): NONE

IS 433

IS 440
COLLABORATIVE TECHNOLOGIES FOR LEADING PROJECTS Study of the process of virtual teaming with emphasis on facilitation of different time project activities and facilitation of same time meetings. Students will learn how small group psychology and group communication theories inform specific behaviors in the design and leadership of meetings. Several meeting types including information briefing, focus group, document writing, decision making, requirements gathering, and teaching/training will be explored. In addition, the course surveys current collaboration technologies and discusses how to select among those technologies usability and fit to purpose of a meeting agenda. DL students may be required to schedule same time sessions with the instructor and other DL students; see current quarter syllabus for more information on this point. PREREQUISITE(S): NONE

IS 456
KNOWLEDGE MANAGEMENT SYSTEMS Survey of emerging technologies supporting organizational knowledge processes including capture, codification, structure, storage, dissemination and reuse. The course will critically examine how organizations may leverage these technologies toward competitive advantage.
Students will experiment with contemporary knowledge management (KM) tools. Some theoretical perspectives on knowledge management (KM) and organizational learning (OL) will be introduced. PREREQUISITE(S): completion of foundation or core phase.

IS 475 INFORMATION SYSTEMS ANALYSIS AND DESIGN Information systems development emphasizing the application of structured techniques in a case and 4GL environment. Topics and team project tasks include case tools, entity-relationship diagramming, data-flow diagramming, structure chart, action diagram, joint application design, prototyping, design of relational database, and testing. PREREQUISITE(S): CSC 315 or instructor consent.

IS 481 SOFTWARE AND SYSTEMS DOCUMENTATION Creating documentation for software, systems, or telecommunications projects. Development and delivery of documents (paper and Web-based) that present products and systems effectively to complex audiences. Documents include planning documents, vision statements, requirements specifications, status and milestone reports, user test plans, and user documentation. Emphasis on constructing electronic documents, appropriate content and hyperstructures for specific purposes and readers, and textual interactivity. Discussions on versioning and intellectual property issues. Presenting highly technical issues to business audiences. PREREQUISITE(S): Graduate Standing.

IS 482 LEGAL ASPECTS OF INFORMATION TECHNOLOGY A practical survey of computer and information technology law arising in a high tech environment. Topics covered include: employment contracts, civil and criminal law, fraud and abuse, contracts, e-commerce, intellectual property, privacy, security, harmful communications, constitutional and First Amendment issues, and internal law and trade. PREREQUISITE(S): NONE.

IS 483 INFORMATION SERVICES AND OPERATIONS This course focuses on the operational aspects of information systems in organizations by examining the concepts, tools and techniques available to IS professionals responsible for the delivery of IT services. Topics include the organization of the IT services; the procurement of hardware, software and vendor services; operation of data centers, help desks and user training, the development and use of RFPs (Request for Proposals) and SLAs (Service Level Agreements), the integration of services and operations with application development project needs, and the role of capital and operating budgets. PREREQUISITE(S): Completion of foundation or core phase.

IS 484 COMPUTERIZED ACCOUNTING SYSTEMS Responsibility accounting systems. Profitability accounting systems. Customer invoicing, cash receipts and accounts receivable information processing. Customer order entry, finished goods inventory, purchasing and receiving information processing. Accounts Payable, fixed assets and employee payroll systems. General ledger, budget and profit planning, sales analysis and market planning systems. PREREQUISITE(S): GSB 504 or ACC 103.

IS 505 BUSINESS CONTINUITY AND DISASTER RECOVERY This course will give you basic knowledge on how a company should prepare for all types of disruptions (floods, earthquakes, terrorist attacks, etc.) so it will survive the disruption. You will be given a blueprint for how to analyze and prioritize risks, come up with criticality ratings, and determine a strategy for survival. You will also learn how to organize employees to respond to the disruption and how to document recovery plans. PREREQUISITES: ADVANCED STANDING RECOMMENDED.

IS 511 SOCIAL ISSUES OF COMPUTING This course aims to provide a broad survey of the individual, organizational, and cultural impacts of computers and to stimulate reflection upon the social and ethical issues provoked by current and projected uses of computers. Some topics include an in-depth look at computers as they relate to workplaces, communities, public policy, legal issues, education, privacy, and moral values. PREREQUISITE(S): NONE.

IS 533 ENTERPRISE SECURITY INFRASTRUCTURE CONTROLS AND REGULATORY COMPLIANCE Design, implementation, support and management of control methods in enterprise environments. Focus is on how these controls can help organizations achieve regulatory compliance. Review of Sarbanes-Oxley and its impact on IT systems. Detailed study of how risk assessment methods, information security program management and ERP systems can be used to fulfill regulatory and legal requirements. Control Objectives for

IS 535
INFORMATION TECHNOLOGY INVESTMENT FINANCIAL ANALYSIS This course focuses on the application of financial analysis and decision-making approaches to aid information technology investment decisions at the operational, project, tactical and strategic levels. Students will learn how to apply a variety of financial methods -- breakeven analysis, present value analysis, profitability index, and return on investment? to various IT investment decisions. The course will also address cost benefit analysis, outsourcing, balanced scorecard, and multi-factor scoring, benchmarking, and IT investment portfolio methods. These techniques will prepare students to manage capital budgets, acquisition of system and application software, hardware, personnel, and professional services at project and system levels as well as enterprise investment portfolio. PREREQUISITE(S): IS 425 or SE 477 or IS 565 or ACCT 500 or IS 430 or PM 430 or ECT 455

IS 540
GLOBAL INFORMATION TECHNOLOGY A study of the hardware, software, and techniques for using virtual information technologies to support teams working in a distributed, virtual, or global environments. Topics include software survey and evaluation, software deployment within organizational and trans-organizational contexts, trans-national vendor relationships, trans-border data flow, geographically dispersed software development, and integration of diverse technologies. PREREQUISITE(S): Completion of foundation or core phase.

IS 549
DATA WAREHOUSING AND DATA MINING Introduction to data warehousing and the foundations of understanding the issues involved in building a successful data warehouse. Data warehouse development methodology and issues surrounding the planning of the data warehouse. Data quality and metadata in the data warehouse. Analysis, transformation and loading of data into a data warehouse. Development of the data architecture and physical design. Implementation and administration of the data warehouse. Introduction to data mining. (PREREQUISITE(S):CSC 449).

IS 553
ADVANCED TOPICS FOR SYSTEMS DEVELOPMENT Planning and implementation of enterprise systems in the context of enterprise transformation and new market dynamics. Networked enterprise and virtual organizations. Internet and intranet applications for electronic commerce, mass customization and information empowerment. Enterprise-wide systems, business process reengineering, Interorganizational systems, sourcing options, and transformational information technologies. Value-chain analysis and competitive strategies. Case studies examine various planning and implementation approaches and impacts. PREREQUISITE(S): IS 422 or ECT 555 or SE 430.

IS 554
INFORMATION ENGINEERING Application of structured techniques on enterprise-wide data models, information architecture, and cross-functional models. Stages for information strategy planning, business area analysis, joint requirement planning, and I.E. methodology. CASE tools, organizational strategies and economics of financial justification. Case studies. (PREREQUISITE(S):IS 422 and CSC 449).

IS 556
ENTERPRISE PROJECT MANAGEMENT This course covers the effective management of complex large-scale technology based projects as well as the management of multiple IT-oriented projects within an enterprise. This course links the management of technological issues within a business environment including the integration of vendor supplied technologies and internally developed software and databases. The large-scale project topics include software development problems; contracts and procurement; leadership behavior and leading team members; the project support functions and metrics; project estimation techniques; and handling multiple facets of a large project. For managing all IT projects in an enterprise, topics include the establishment and use of an IT Project Management office; the IT project portfolio management methods including strategic alignment; project prioritization; organizational support; project architecture management; project resource management; project knowledge management, and project asset management. PREREQUISITE(S): IS 430 or PM 430 or completion of foundation or core phase.

IS 560
ENTERPRISE SYSTEMS An introduction to enterprise systems for data and process integration, including ERP systems. Topics include the requirements of enterprise systems, application architecture, tools, and functionality of leading enterprise systems, life cycle and methodologies for systems integration, selection, and implementation strategies. Also addressed are emerging trends for enterprise systems and relationship
IT OUTSOURCING The course focuses on how organizations can use leverage of scale as a source for cost reduction; leverage of expertise for improved superior IT performance; leverage of access (e.g. location) to develop new strategies. Other topics covered include different types of sourcing strategies, sourcing maturity levels and best practices. PREREQUISITE(S): Completion of foundation or core phase

KNOWLEDGE DISCOVERY TECHNOLOGIES An introduction to the Knowledge Discovery in Databases (KDD) technologies including: data selection and preparation, coding, using a variety of pattern recognition techniques, and reporting the results. The course provides information systems students with a comprehensive overview of data mining and machine learning tools and techniques that is aimed at maintaining and using databases as a strategic source of information and knowledge. The course introduces students to many of the machine learning algorithms including: traditional statistical algorithms, decision trees, association rules, neural networks, and genetic algorithms. PREREQUISITE(S): CSC 449 and (CSC 212 or CSC 224).

ENTERPRISE SYSTEM IMPLEMENTATION. Formerly IS 450. This course is targeted towards information systems professionals who are involved in the planning and implementation of large scale, cross-functional enterprise systems. Students will examine the characteristics of technology efforts that change and transform the way people perform their tasks and how the new technology structures the flows of information and decision making using workflow modeling methods. Through case studies and exercises students gain insights into the elements of successful implementations leading to the preparation of a change management plan. Emphasis is placed on developing mechanisms for communicating and training all affected agents. PREREQUISITE(S): IS 430 or PM 430 or completion of foundation or core phase

SOFTWARE MAINTENANCE Software Maintenance

DECISION SUPPORT SYSTEMS AND INTELLIGENT SYSTEMS Introduction to the concepts of decision support systems and artificial intelligence systems as components of information systems. Detailed discussion of the analysis, design and implementation of systems for decision support, including: data management systems, knowledge engineering, expert systems, and intelligent agents. Advances in artificial intelligence technologies including: knowledge acquisition, knowledge representation and inferencing techniques. Case studies of application software, success and limitation as well as technical and social issues. (PREREQUISITE(S): (SE 430 or MIS 674) and (CSC 449 or CSC451).

INTELLIGENT INFORMATION RETRIEVAL Examination of the design, implementation, and evaluation of information retrieval systems. The focus is on the underlying retrieval models, algorithms, and system implementations. Also examined is how an effective information search and retrieval is interrelated with the organization and description of information to be retrieved. Topics include: automatic indexing; thesaurus generation; Boolean, vector-space, and probabilistic models; clustering and classification; information filtering; distributed IR on the WWW; intelligent information agents; IR system evaluation; information visualization; and natural language processing in IR. Throughout the course, current literature from the viewpoints of both research and practical retrieval technologies both on and off the World Wide Web will be examined. PREREQUISITE(S): CSC 383.

INFORMATION SYSTEMS CAPSTONE This capstone course emphasizes the planning and management of information technologies and related resources at the corporate level. Topics covered include assessment of information technologies, tracking emerging technologies and trends, managing portfolio resources and matching them to business needs, technology transfer, end-user computing, outsourcing, theoretical models, strategic applications and strategic IT planning. Students are encouraged to take this course toward the end of their study. PREREQUISITE(S): Completion of the IS Core Knowledge Phase.

INFORMATION TECHNOLOGY CONSULTING This course is for the IT professional. The emphasis is on examining the models, techniques, and skill development for providing effective IT consulting services. The course examines the structure of IT consulting markets; leading IT consulting practices; models and
approaches for providing internal IT consulting services; sourcing strategies, evaluation of RFPs and response process contract formulation, client relations and project management; knowledge management and collaboration and IT strategies. PREREQUISITE(S): Completion of foundation or core phase.

IS 596
TOPICS IN INFORMATION SYSTEMS Independent study form required. (PREREQUISITE(S):Consent of instructor).

IS 690
RESEARCH SEMINAR Readings and discussion on current research topics. Students may register for this course no more than twice. (PREREQUISITE(S):Consent of advisor).

IS 696
MASTER'S PROJECT Four credit hours. Students may register for this course only after their advisor has approved a written proposal for their project. Independent study form required. (PREREQUISITE(S):Consent of advisor).

IS 698
MASTER'S THESIS Two credit hours. Students may register for this course only after their advisor has approved a written proposal for their thesis. Students must continue to register for this course every quarter after their first registration in it until they complete their project or thesis to the satisfaction of their advisor. They earn two hours of credit for each such registration but only four hours of credit will apply for degree credit. Independent study form required. (PREREQUISITE(S):Consent of advisor).

Information Technology

Graduate Course Descriptions

Information Technology

IT 430
BUILDING INTERNET APPLICATIONS This course presents the design and development of interactive Web applications for e-commerce. Major topics include Web server architecture; server-side programming including events and controls; application and database integration; and security issues. Students will engage in a course project to build a dynamic Web application. PREREQUISITE(S): IT 130

IT 599
TOPICS IN GLOBAL INFORMATION TECHNOLOGY Course Description: This course focuses on current topics in the information and communications technologies that together support the "networked world". Samples topics are global software development and deployment, global data and information management, and cross-cultural project management for information systems. The course may be offered for variable (1 to 4) credit hours. PREREQUISITE(S): None

IT 698
MASTER'S THESIS 2 credit hours) Students may register for this course only after their advisor has approved a written proposal for their thesis. Students must continue to register for this course every quarter after their first registration in it until they complete their project or thesis to the satisfaction of their advisor. They earn two hours of credit for each such registration but only four hours of credit will apply for degree credit. PREREQUISITE(S): Consent of advisor.
Institute for Professional Development

IPD 468
.NET MOBILE APP. DEV. PROGRAM An 11-week focused program covering the basic skills and techniques for successfully building

IPD 499
TOPICS IN GLOBAL INFORMATION TECHNOLOGY This course focuses on current topics in the information and communications technologies that together support the "networked world." Sample topics are global software development and deployment, global data and information management, and cross-cultural project management for information systems. The course may be offered for variable credit hours (2, 4, 8, 16, and 32). PREREQUISITE(S): None

IPD 530
ADVENTURE OF THE AMERICAN MIND The Adventure of the American Mind (AAM) is the course component of a project designed to teach in-service classroom teachers to access, use and produce curriculum utilizing the Internet and the digitized primary source materials from the collections of the Library of Congress.

Instructional Technology System

ITS 427
LEARNING AND TECHNOLOGY This course surveys information processing models of learning and uses them to explain principles and factors that contribute to successful learning outcomes. These models, often called computational cognitive models, provide rigorous, testable theories of how skills and knowledge are acquired. Building upon computer concepts acquired from previous courses, students will experiment with working systems in understanding the empirical findings that are most relevant towards building instructional systems. PREREQUISITE(S): CSC 212.

ITS 431
INSTRUCTIONAL DELIVERY AND COURSE MANAGEMENT SYSTEMS This is an applications course in which participants will examine instructional delivery systems such as Internet-based applications, and other voice, video and data systems and course management systems such as Black Board, cu Hear me, Lectra, and Net Meeting. The course will be grounded in learning theory, management practices and organizational structures. PREREQUISITE(S): ITS 427

ITS 440
DISTANCE LEARNING TECHNOLOGIES This course is designed to enable students to design and evaluate Internet-based distance learning (IDL) systems. The course focuses on three major themes: IDL scenarios and requirements, multimedia technology and its impact in IDP systems, and network and collaboration support for IDL. PREREQUISITE(S): TDC 361 or DS 420.

ITS 560

ITS 584
ARTIFICIAL INTELLIGENCE IN LEARNING ENVIRONMENTS AI techniques play a natural role in learning
ARTIFICIAL INTELLIGENCE IN LEARNING ENVIRONMENTS

AI techniques play a natural role in learning environments by allowing technological artifacts to interact with learners in an intelligent manner, and by helping us better understand the processes that are involved in learning. This course will look at Artificial Intelligence in Learning Environments (AILE) from three viewpoints. The first is the research in human learning that relates to AI techniques. Methods like scaffolding, self-explanation, constructivism, and learning-by-doing have been used by AI systems to increase learning in a wide range of settings. The second viewpoint comes from the AI techniques that have played an important role in AILE systems. Some of these come directly from "mainstream" AI, like cognitive modeling, natural language processing, machine language, and bayesian networks. Others have been developed primarily for use in AILE systems, for example, student modeling, model tracing, knowledge tracing, and methods for evaluating learning. We will ground all of these topics by looking at particular AILE systems that have been influential by pushing the state of art and/or demonstrating substantial benefits in learning environments. PREREQUISITE(S): CS 457 OR CS 480 OR INSTRUCTOR PERMISSION.

ITS 589
ITS CAPSTONE PROJECTS COURSE This practicum projects course provides an opportunity for students to apply all of the skills they have learned on one comprehensive project. Multidisciplinary teams work with educational domain experts to plan, design, implement, and evaluate an intensive instruction technology systems project. PREREQUISITE(S): Completion of the ITS Fundamental courses or consent of the instructor.

International Business

IB 500
GLOBAL ECONOMY (FORMERLY ECO 556) (PREREQ: GRADUATE STANDING) This course is designed to be an introduction to the economic environment in which businesses operate. With the increasing interdependence of national economies and the growing role of global enterprises, the understanding of international economic issues is vital to decision-makers. The material covered will include both socio-cultural aspects and economic and financial dimensions of global business. Students should obtain a grasp of the basic theory as well as a
knowledge of the major current issues in the global economy. PREREQUISITE: Graduate Standing

IB 505
GEOPOLITICAL AND CULTURAL ISSUES IN INTERNATIONAL BUSINESS Analysis of major geographical and cultural conditions in those countries most involved in U.S. foreign trade. Guest lectures, comprehensive maps and pertinent media presentations supplement weekly class discussion.

IB 515
ACCOUNTING, AUDITING AND TAXATION ISSUES IN INTERNATIONAL BUSINESS This course covers the accounting, auditing and taxation issues that confront the general manager in international business. It includes coverage of the institutional background of international accounting; international aspects of financial and managerial accounting; financial and quality auditing (i.e. ISO 9000); and U.S. taxation. Prerequisites ACC 500

IB 520
INTERNATIONAL TRADE THEORY AND POLICY (PREREQ: ECO 555 OR EQUIVALENT) Modern theories of international trade: classical theory of comparative advantage, factor proportions theory, factor price equalization, application of welfare economics to international trade, including regional economic integration, commercial policy and tariff problems. PREREQUISITE(S): ECO 555 or equivalent.

IB 521
INTERNATIONAL MACROECONOMICS (CROSS-LISTED AS ECO 558) (PREREQ: ECO 509 OR EQUIVALENT) This course analyzes traditional macroeconomic issues in a framework that explicitly allows for international trade and capital flows. Topics covered include exchange rate and balance of payments determination, the impact of international trade and capital mobility on domestic monetary and fiscal policy, fixed vs. floating exchange rate systems, exchange rate overshooting and other topics. PREREQUISITE(S): ECO 509 or equivalent.

IB 525
ECONOMICS OF DEVELOPING COUNTRIES (PREREQ: ECO 555 OR EQUIVALENT) This course reviews models of economics development and some of the key issues in economic development including agricultural and rural development, population, economic growth, the role of government, health, education, income distribution, trade regime and policy, international capital flows and the environment, international trade and foreign resource flows. The course integrates country studies of selected developing economies and regions, cross-country statistical studies and theoretical tools drawn from the fields of microeconomics, macroeconomics, and international trade. PREREQUISITE(S): ECO 555 or equivalent.

IB 526
COMPARATIVE ECONOMIC SYSTEMS (PREREQ: ECO 555) A study of the contrasting theories of socialism and capitalism. PREREQUISITE: ECO 555 OR EQUIVALENT

IB 530
INTERNATIONAL FINANCE (PREREQUISITE: FIN 555) International Finance integrates the financial activities, institutions, and multinationals of the global finance arena. In addition to extending the tools of financial analysis to an international setting, the course studies the strategies available to a multinational because of operations in a multiple of countries. Topics include foreign currency and political risk, capital budgeting in a multinational setting, and cash flow management between countries. PREREQUISITE(S): FIN 555.

IB 540
INTERNATIONAL MANAGEMENT The objective of this course is to develop clear awareness of the international business operations, practices and environment. It provides the concepts, methods and tools necessary to face the global challenges in international management. The objective is met through lectures, classroom discussions, library assignments and research work. Students will learn the effective use of the international business references. By the end of the course, they are expected to have developed a high level of competency in acquiring, understanding, analyzing and synthesizing international management information from international business directories, databases and CD-ROMs.

IB 545
AREA STUDIES IN INTERNATIONAL MANAGEMENT In-depth analysis of the economic and cultural aspects of doing business in a particular region, e.g. Western Europe, Middle East, Japan, etc. The course focuses on the region's business relations with the United States, its trade and management practices and the successful conduct of business negotiations. The area under consideration will vary from quarter to quarter in order to cover regions of particular interest to our students and the business community of Chicago.
INTERNATIONAL MARKETING (PREREQ: MKT 555 OR EQUIVALENT) The differences between markets and distribution systems in various countries are explored. By emphasizing the social and economic factors causing these differences a sound understanding of and empathy with different international marketing problems are developed. Analyses are made of the organization of trade channels in various cultures, of typical government policies towards international trade in countries at different stages of development, and of international marketing research, advertising, and exporting. Offered Variably. PREREQUISITE(S): MKT 555 or equivalent.

INTERNATIONAL BUSINESS SEMINAR I (COREQ: IB 755) Off-campus seminar, usually one to three weeks, providing exposure to international business cultures. COREQUISITE: IB 755.

INTERNATIONAL BUSINESS SEMINAR II (COREQ: IB 750) Some of the International Business Seminars offered eight rather than four credits. Students are ordinarily required to complete an in-depth research paper in an international business area approved by the director of the seminar. Information gathered during the seminars with business and governmental organizations must be incorporated into the research paper. COREQUISITE: IB 750.

PROBLEMS AND PRACTICES I: MARKETING AND FINANCE, AN INTRODUCTION (PREREQ: MBA/IMF ONLY) An introduction to the issues in the management of marketing and financial activities in a global business environment. The course seeks to integrate marketing and finance as the driving forces of corporate strategy. Topics include the time value of money; the determinants of corporate financial strategies, including dividend policy, capital structure, and capital budgeting; and the role of agency costs and information in the formulation of financial policy. The course will also introduce students to consumer behavior, product and pricing strategy, new product development, and distribution strategy. PREREQUISITE(S): MBA/IMF only.

PROBLEMS AND PRACTICES II: INTEGRATED SIMULATION This course is designed to integrate multiple areas of specialization within an international business environment. Students will formulate, develop, and implement strategic issues and concepts for a "simulated" company. Decisions will include: product positioning, pricing promotion, and sales budgets, new product introduction, production, labor versus capital investment, and capital structure. Some of the factors that will be explored include defining the mission statement of an organization, environment analysis and appropriate reactions, setting objectives and targets, and formulating organizational and functional strategies. Enrollment is limited to students in the MBA/IMF only.

PROBLEMS AND PRACTICES III: FINANCIAL MANAGEMENT This course is designed to integrate the finance function into issues involving marketing strategies and marketing research. Through an analysis of the financial consequences of selected corporate missions and strategic objectives, the financial elements of a marketing plan are developed and analyzed. The course seeks to compare and contrast the analytical methods and applications used in marketing research with the types of problems and solution techniques developed for the finance function. Through a discussion of the strategic process and the corporation's analytical framework for decision-making, the course focuses on the interaction of finance and marketing in the global operations of the corporation. Enrollment is limited to students in the MBA/IMF only.

PROBLEMS/PRACTICE IV: MARKETING & FINANCE STRATEGIC ISSUES & INDUSTRY PRACTICES This course addresses the use of marketing and financial decision-making in the development of the firm's strategic plan. Topics examined include the process of strategy development and implementation, decision-making under uncertainty and change, and an examination of the contemporary marketing and finance environment as it applies to a specific firm. The student is challenged to integrate the marketing and finance issues facing the firm with the total corporate environment. The impact of recent developments in financial markets and of rapidly changing consumer preferences is emphasized. In a term project, students will develop a strategic plan for selected international firms and propose their plan to the firm. Enrollment is limited to students in the MBA/IMF only.

SPECIAL TOPICS (PREREQ: AS INDICATED IN SCHEDULE) Content and format of the course are variable. An in-
depth study of current issues. Subject matter will be indicated in class schedule. Offered Variable.

IB 799
INDEPENDENT STUDY (PREREQ: WRITTEN PERMISSION) Available to graduate students of demonstrated capability for intensive independent work in international business. PREREQUISITE(S): Written permission.

International Studies

Graduate Course Descriptions

International Studies

INT 401
PROSEMINAR IN INTERNATIONAL STUDIES The seminar defines the methodology of international studies in three ways: as a theory of institutional interactions between people separated by distance and/or culture, as a problem-based research agenda aimed at discovering more effective mechanisms for these institutional interactions, and a collection of methods that employ historical, political, economic and cultural research techniques, simultaneously or sequentially, to uncover solutions to international problems. The objectives of this seminar are accomplished by studying a series of cases, most of which require library research, with students. These serve as model thesis projects, thereby introducing students to the methodology of the field and the program requirements simultaneously. Faculty from the various disciplines offer lectures in the seminar, introducing students to a wider range of approaches and potential advisors in the Autumn term. PREREQUISITE(S): Permission of the director

INT 402
COMPLEX SOCIAL ORGANIZATION (PERMISSION OF DIRECTOR REQUIRED) The seminar will work through a series of cases that show students how to connect the surface events of a contemporary economic or political situation to the underlying social and cultural structures and processes that precipitate it. Theories that attempt to validate assumptions about these underlying structures and processes are examined. Through this seminar students acquire a fundamental knowledge of social theory and the methodology of organizational analysis. PREREQUISITE(S): INT 401 or permission of the instructor

INT 403
MOVEMENTS, REGIMES, AND IDEOLOGIES The seminar focuses on the organization of power in contemporary societies and the processes that legitimatize or impeach authority. Students examine cases from both historical movements and contemporary movements. Through this seminar students acquire a fundamental knowledge of the agendas of modern political movements and the ideological supports for existing regimes. PREREQUISITE(S): INT 401

INT 404
CULTURES IN THE INTERNATIONAL CONTEXT An examination of contemporary issues in cultural analysis of global processes. Topics may include local-global linkages, transnational identities and communities, diasporas, Orientalism, the post-colonial condition, the post-socialist condition, commodification and consumption, meanings of gender and sexuality, globalized spaces and places, and technological transformation.

INT 405
ECONOMIES IN THE INTERNATIONAL CONTEXT Examines the historical development of the contemporary international economy. The principle channels of interaction in this economy are examined: trade and investment, diffusion of technology, and institutional borrowing and adaptation. Students encounter classical, marxian, and neoclassical (political) theories of the interaction between national economies. PREREQUISITE(S): INT 401

INT 406
GLOBALIZATION This seminar explores the cultural, economic, and political dimensions of current
GLOBALIZATION This seminar explores the cultural, economic, and political dimensions of current globalization processes. Topics may include flows of people, goods, ideas, or capital and how these flows impact states, movements, regimes, and localities. PREREQUISITE(S): INT 401

INT 490
SPECIAL TOPICS IN INTERNATIONAL STUDIES Special courses will be offered as students and faculty identify selected topics of common interest. This number is also used for students taking 300-level courses in the undergraduate International Studies program. In this case, students must have the approval of their thesis advisor and the director of the International Studies program before registering for the course.

INT 500
TOPICS IN GLOBAL CULTURAL ANALYSIS Provides students writing theses in the area of global culture with opportunities to read contemporary works in the field, including the fragmentation of identity, postcolonial historiography, and transnationalism. Students develop analytical skills that can be applied to their projects. The seminar is offered in the Spring of the first year; the course focuses on different topics under different instructors.

INT 502
TOPICS IN INTERNATIONAL POLITICAL ECONOMY Provides students writing theses in the area of international political economy with opportunities to read contemporary works in the field, including growth theories, capital and labor flows, and transformation of regimes. Students develop analytical skills that can be applied to their projects. The seminar is offered in the Spring of the first year; the course focuses on different topics under different instructors.

INT 504
TOPICS IN INTERNATIONAL LAW Course offers students the opportunity to engage in an examination of recent developments in international treaties, legal process and international organization. Topics have included refugees, trade law, criminal law and the establishment of the international criminal court, international labor law, environmental law, theories of international law, human rights and the relationship between international law and local economic development. Students work on the international law and institutional aspects of their theses.

INT 506
ETHICS IN INTERNATIONAL POLITICS Provides a detailed review of the ethical writings on international politics from a number of philosophical positions.

INT 508
ETHNIC CONFLICT Course offers students the opportunity to engage in comparative examination of recent ethnic conflicts. Theories of the national/nationalism, ethnicity, race and gender are applied to case studies of conflicts involving group-based sociopolitical identification. International political legal forms of prevention and amelioration are studied and evaluated in light of theories and histories of group-based conflict. Conflicts studies have included: Northern Ireland, Rwanda, Israel/Palestine, the former Yugoslavia, Nigeria, E.Timor, Chiapas, France, Tibet, Cypruds, Kurdistan, Sri Lanka, and the U.S. Students work on the theory portion of their theses, developing a conception of group-based social identification.

INT 509
INTERNATIONAL MIGRATION Course examines historical, political economic, sociocultural and legal aspects of the migration of people across borders. Students gain a critical understanding of the development of the world labor market from early modernity through the present, as well as the structural context of recent anti-immigrant/anti-immigration politics in Europe, North America and Australia. Cultural studies concepts of diaspora, mestiza, "the new ethnicity," and hybridity are used to explore the possible formation of unique migrant subjectives. Finally we look at the consequences for the nation-state of migration driven transnational subject and community formation. Students work on the theory portion of their theses, developing a conception of population shifts, transnational identity and their implications for social organization.

INT 510
GLOBAL CITIES Global Cities

INT 532
INTERNATIONAL MEDIA Explores the growth in the scope and power of international media to distribute images and ideas. Topics covered include First World monopolization of media, analysis of ties between media and capital, and Third World resistance to media influence.
UNITED NATIONS PEACEKEEPING Peacekeeping. Explores the history of UN. peacekeeping efforts and the effectiveness of these efforts in different conflicts. Topics vary with the interests of the students.

FIELD RESEARCH IN INTERNATIONAL STUDIES Supervised independent research aimed at acquiring primary data for the thesis. Requires the approval of the thesis advisor and the director of the program.

INTERNATIONAL SOCIAL ENGAGEMENT This course provides 20-25 hours of service learning opportunities for students in organizations that are pursuing local activities based on international missions or globally-informed policies. The course meetings are focused on student experiences and a discussion of state, sub-state, and non-state organizational structures in the international context.

THESIS RESEARCH I: DIRECTED RESEARCH The workshop extends the opportunity for students to discuss their thesis research activities with faculty and to learn various techniques and strategies of effective research. Ordinarily, students register for this course in Spring term. PREREQUISITE(S): INT 401

THESIS RESEARCH II: THESIS WRITING The workshop extends the opportunity for students to discuss their thesis writing activities with faculty and to learn various techniques and strategies of effective scholarly writing. The culmination of this course is the defense of the thesis. Ordinarily, students register for this course in Winter term. PREREQUISITE(S): INT 401

CANDIDACY CONTINUATION Students who must take extra time to complete the requirements for the first or second year must enroll in candidacy continuation or must apply for readmission to the program.
Japanese

JPN 497
SPECIAL TOPICS IN JAPANESE
See schedule for current offerings. Graduate standing required.

JPN 498
FOREIGN STUDY [PREREQ(S): PERMISSION]
Variable credit. Prerequisite(s): permission required. Graduate standing required.

JPN 499
INDEPENDENT STUDY [PREREQ(S): PERMISSION OF CHAIR & INSTRUCTOR]
Variable credit. Permission of chair and instructor required. Graduate standing required.

Jazz Studies

JZZ 400
JAZZ ENSEMBLE (1 credit) Current performance styles for large ensemble; new arrangements and compositions are emphasized; performances are presented both on and off campus. Audition required. All MEN courses are repeatable courses.

JZZ 401
JAZZ CHAMBER ENSEMBLE (1 credit) Study, rehearsal and performance of literature for jazz chamber groups. All MEN courses are repeatable courses. Placement audition required.

JZZ 402
ADVANCED JAZZ COMPOSITION I (4 credits) Composition of works for jazz chamber groups and big bands.

JZZ 403
JAZZ ANALYSIS AND APPLICATION (4 credits) Studies of major jazz composers in transcription. Application of styles in compositional projects.

JZZ 404
ADVANCED JAZZ COMPOSITION II (4 credits) Advanced topics in jazz composition. Composing for jazz chamber groups and big bands. PREREQUISITE(S): MUS 440.

JZZ 405
JAZZ HISTORY This course will be centered around study of the bebop period, which is the foundation of modern jazz. The swing era will be studied, which is the period immediately preceding bebop, to understand the reasons bebop came about. The substyles that developed after the bebop period are called the cool school and the hard bop periods. The reasons theses periods came about will also be discussed. With regard to these periods, significant recordings, musicians, and style development will be discussed.
JZZ 406
JAZZ STYLE AND ANALYSIS At the completion of this course, students will demonstrate a theoretical and aural understanding of the process of jazz improvisation, including song forms and structures, chord/scale relationships, chord notation and phrasing; transcribe, analyze, and perform select solo jazz improvisations by recorded jazz artists; have made two class presentations that will incorporate the student's performance and written analysis of select solo jazz improvisations, and a historical biography of the recorded solo artist. Open to all graduate music students.

JZZ 407
JAZZ GRADUATE RECITAL A full 60 minute, public recital performance of solo and/or chamber repertoire to be completed during the graduate residence. This recital is required as partial fulfillment of the degree of Master of Music in Jazz Studies. COREQUISITE: Students must be registered for 2 or 4 credits of applied lessons during the quarter the recital is presented.

JZZ 408
JAZZ ENSEMBLE (0 credit) Current performance styles for large ensemble; new arrangements and compositions are emphasized; performances are presented both on and off campus. Audition required.

JZZ 409
APPLIED JAZZ COMPOSITION (PREREQ: JZZ 404) Private instruction exploring advanced techniques and methods of jazz composition and arranging. PREREQUISITE(S): Advanced Jazz Composition II.

JZZ 410
JAZZ COMPOSITION FINAL PROJECT (PREREQ: JZZ 404) Completion of a 7-10 minute original composition for standard jazz ensemble instrumentation (5 reeds, 4 trumpets, 4 trombones, and rhythm section). This project is required as partial fulfillment of the degree of Masters of Music in Jazz Studies (Composition emphasis only). PREREQUISITE(S): Advanced Jazz Composition II

JZZ 411
JAZZ PEDAGOGY (2 credits) A study of the methods of teaching jazz improvisation arranging, composition, conducting and rhythm section techniques. Can serve as an elective for music education majors.

Journalism

Graduate Course Descriptions J & K Journalism

JOURNALISM

JOUR 501
THE SOCIAL RESPONSIBILITY OF JOURNALISM This course introduces students to the historic development of social responsibility theory and its continuing role in defining the obligations of journalists in creating an informed citizenry as a critical part of the democratic process. The course analyzes the ongoing tension between journalistic responsibility and the obligations of news organizations to turn profits for their shareholders and the constitutional imprimatur of journalism to offer the information that makes self-governance possible.

JOUR 502
NEWS NEW: JOURNALISM IN THE INFORMATION AGE This course offers historic context in critically examining issues now facing journalism. Students will analyze the impact that convergence and digital technologies are having on ethical decisions that must be made by socially responsible journalists during every news shift. Topics include: who is a reporter? in the digital age and what are the rights and privileges of the online reporter in a converged environment that influence confidentiality, defamation, privacy, gate-keeping, sensationalism, the public?s right to know, globalization, corporatization, and public opinion.

JOUR 503
REPORTING FOR CONVERGED NEWSROOMS This course is designed to equip journalists with the techniques
REPORTING FOR CONVERGED NEWSROOMS

This course is designed to equip journalists with the techniques needed in assembling and producing stories that can be published and distributed across integrated media platforms. Students will learn to write and edit reports for online media in ways that add value to stories and encourage readers to drill down into these news narratives for information worth knowing. Students will develop an understanding of how newsgathering practices are evolving through digital media and the role of teamwork in disseminating these stories to an informed citizenry.

JOUR 504
BACKPACK REPORTING

This course gives students the practical experience they need in news gathering and distribution within the converged landscape of electronic newsgathering. This will involve the preparation needed in covering stories, writing reports, shooting pictures and videos, and downloading these files along with links to relevant sites online. This course will prepare students to act independently and with others throughout the digital news gathering cycle, including the production of content in multiple information formats.

JOUR 505
ADVANCED TELEVISION REPORTING

This course will teach students how to be responsible broadcast news reporters, anchors, producers, and editors, who bring added value to stories in today’s converged newsroom environment. Students will learn all aspects of the news gathering and distribution process from story conception to the research, interviewing, reporting, writing, shooting, editing, and producing that goes into a successful, must-see story.

JOUR 506
NEWSCAST PRACTICUM

This course teaches students how to construct a newscast, while fulfilling the social responsibility of the press. Students will learn how to utilize digital technologies to craft stories that empower citizens to participate more fully in public life. Students will rotate through different positions weekly---reporter, anchor, editor, technical director, director, floor director, and producer---in producing a weekly public affairs program.

JOUR 507
VISUAL COMMUNICATION

This course gives students a theoretical and practical grounding in the digital world of photo-journalism. Students will be introduced to the wide array of tools available to reporters in illustrating content from their stories on the web. This includes the hardware and software packages now available in digital story-telling and how citizens use the information in interpreting the news of the day.

JOUR 508
NICHE JOURNALISM

The course examines the explosion in magazine and trade publication journalism that is able to target specific audiences with content designed exclusively for them. Students will use the tools now available in reaching reader communities that share common interests and information. This is revolutionizing the ways in which stories are told, while creating communication communities that share common interests and speak a common language.

JOUR 509
THE PRESS, THE LAW, AND DEMOCRACY

This course examines the impact the digital revolution is having on the role of journalists in preserving, protecting, and defending a democratic process, founded on the Enlightenment understanding that giving citizens critical information is central to the democratic process. Twenty-first century technology is furthering the ability of journalists to meet their obligations to an informed public, while greatly complicating that role. This course analyzes the uniquely democratic landscape of the internet and other virtual worlds while probing the role of journalists in that world.

JOUR 510
SPORTS REPORTING

This course gives students an historic understanding of the role of the sports writer and sports section and the impact the online universe is having on sports writing and reporting. Students will the values of modern sports editors and the techniques used by modern sports writers. Students will learn the perspective and context that makes good sports writing truly exceptional.

JOUR 511
ARTS AND ENTERTAINMENT REPORTING

Arts and Entertainment reporting is among the most widely read, but often is the most poorly executed aspect of a publication or broadcast. Students taking this course will develop a critical appreciation for the role of arts and entertainment reporting in the history of the press and its current role in creating a culture that appreciates and understands the arts and their profound contribution to human understanding.

JOUR 512
BUSINESS AND FINANCE REPORTING This course will help students better understand the critical role that business and finance reporting plays in the United States and the world economy. Students will develop the techniques that are necessary in responsibly researching, reporting, writing, and editing business and financial news. Segments of the course will be devoted to the history of the discipline, the ethical responsibilities of the business press, and the unique opportunities now available to the digital reporter of business and financial news.

JOUR 513
CHICAGO AND URBAN AFFAIRS REPORTING This course analyzes what is distinctive about Chicago reporting. Students will be introduced to the rich tradition and history of reporting in this city, and the central role this work has played in the development of urban reporting nationwide. To do this, students will take a close look at the institutions, people, neighborhoods, decision-makers and events that impact Chicago residents in their everyday lives. The emphasis will be on localizing our approach to stories through a beat system that will allow students to regularly report on important areas of municipal life.

JOUR 514
OPINION AND COLUMN WRITING Students will learn what makes for extraordinary opinion and column writing with an emphasis on strong reporting that enables writers to assemble arguments based on the firm foundation of fact. Also examined will be the new ways in which digital delivery systems both empower and threaten the free flow of ideas within and across interest communities.

JOUR 515
SPECIAL TOPICS IN JOURNALISM Special topics in journalism.

JOUR 516
INDEPENDENT STUDY Students will be guided in the development of a special project that furthers their collaboration with an instructor and produces a report that demonstrates their mastery of critical content and competencies. The independent study option is intended for students who have demonstrated a mastery of course content, who would benefit from a sustained, focused collaboration with a relevant faculty member.
LSI 430
INTRODUCTION TO ASSESSMENT OF READING AND LEARNING DISABILITIES This course introduces the student to concepts and procedures in assessment of literacy and learning disabilities. Emphasis will be given equally to a theoretical framework for testing and to practical applications with actual tests. Topics to be covered include standardized testing (test construction, reliability and validity, procedures for administering standardized tests, scoring, test interpretation, non-discriminatory testing, and cultural, linguistic, and technical limitations of standardized tests) criterion referenced assessment (informal, curriculum-based, authentic assessment, portfolio assessment) and, other modes of assessment (interviewing and case histories). The course will examine assessment of various cognitive abilities, oral language, and achievement in reading, spelling, and writing. Candidates will also be introduced to analysis and interpretation of tests, profiling and report writing.

LSI 431
FOUNDATIONS OF LITERACY: ASSESSMENT AND INSTRUCTION I This course focuses on the nature of the reading process, current literacy theory and practices, and research-based instructional strategies to develop literacy skills in emergent and developing readers and students with reading/learning disabilities. Emphasis will be placed on understanding the reading process, analyzing and applying research-based instructional practices, administering, analyzing, and interpreting formal and informal reading assessments, and making informed instructional decisions to meet the unique needs of individual readers. Differences in reading abilities will be examined in light of providing appropriate, effective, and meaningful literacy instruction.

LSI 432
DEVELOPING LITERACY: ASSESSMENT AND INSTRUCTION II LSI 432 focuses on the reading, writing and literacy development of the middle and high school student (Grades 5-12). Emphasis will be placed on understanding literacy, the reading process, the interaction of reading and learning, and the connections of reading and writing. All of the above will be examined taking into consideration the physical, emotional, social, and cognitive development of the middle level student, in conjunction with the diverse demands placed upon the student by the schools. In order to comprehend these complex relationships, philosophical approaches, theoretical models, assessment measures and practical implications will be analyzed. Finally, the role of technology in literacy will be examined.

LSI 433
DIAGNOSIS AND INTERVENTION FOR READING AND LEARNING DISABILITIES This course is designed to give the student an understanding of the characteristics of children with reading and learning disabilities, and of the process of diagnostic evaluation, test interpretation and report writing, and strategies for intervention. It is also designed to give some practical experience with selected tests used in diagnosis. Emphasis will be given to the use of case study material to help the student learn to analyze and interpret assessment data, write diagnostic results, and develop intervention strategies.

LSI 434
LITERATURE FOR SUCCESSFUL AND STRUGGLING READERS This course will familiarize students with different genres of quality children's literature and how to select and use books that are appropriate and meaningful for children and youth with and without reading disabilities. Students will discuss, analyze, and critique literary elements (author's style of writing, character development, setting, mood, and theme), determine estimated readability levels, and engage in reader response activities that promote critical discussion and a personal interaction with text. Students will become familiar with authors, illustrators, and books that represent diverse cultures, races, ethnic and ability groups, and develop meaningful literature extensions that support various curricular areas, develop literacy skills, and promote an enjoyment of reading.

LSI 435
CURRICULUM, COLLABORATION, ADMINISTRATION AND SUPERVISION OF READING PROGRAMS This course
CURRICULUM, COLLABORATION, ADMINISTRATION AND SUPERVISION OF READING PROGRAMS  This course will prepare the reading specialist to assume a leadership role within a school or district, to help develop and supervise reading programs, and to be instrumental in integrating good reading practices throughout the curriculum and across grade levels. Students will learn about the leadership role of the reading specialist as they explore the ways in which a reading specialist can be a teacher leader, curriculum developer, and liaison to parents and the community beyond the school.

LSI 436  CURRENT ISSUES AND RESEARCH IN READING AND LEARNING DISABILITIES  A seminar format using selected readings allows students to analyze and discuss research on current issues in reading instruction and learning disabilities. A variety of topics will be covered including: social/cultural issues in literacy development and instruction, bilingual/bicultural issues in literacy development and instruction, paraprofessional and volunteers in literacy programs, technology for literacy development and instruction, assistive technology for reading disabilities, neurological research and reading disabilities, specialized intervention strategies for reading disabilities, and other issues. Students will develop skills that promote professional growth and life-long learning: reading research and other literature, analyzing, reflecting on, and writing about current issues, and participating in professional activities.

LSI 437  LEADERSHIP AND PROFESSIONAL DEVELOPMENT IN READING & LEARNING  In this course, an emphasis will be placed on developing the necessary skills to provide leadership, professional development and support to school personnel in the area of literacy, particularly for struggling readers and those with learning disabilities. Students will engage in a variety of activities to promote the development of these skills which include but are not limited to planning and executing a professional development event, evaluating published reading programs to determine their alignment with research-based instructional practices, administering and interpreting findings from standardized measures of academic achievement, instructing others how to interpret findings from standardized measures of achievement and mentoring a colleague in the area of literacy instruction. (Prerequisite courses: LSI 431, and LSI 432)

LSI 441  THE PSYCHOLOGY OF READING  Introduces students to current information concerning theoretical models and methods of reading as well as the role of the neurophysiological, psychological and educational factors that influence both normal and abnormal reading development.

LSI 442  CHARACTERISTICS OF THE EXCEPTIONAL LEARNER  A survey of the characteristics of exceptional children and a consideration of alternative placements appropriate for children with various disabilities including the learning disabled. Emphasis on historical, theoretical, practical and legal implications and issues, as well as on the roles of special education professionals, including consultation and collaboration, in mainstreaming exceptional children.

LSI 443  PSYCHOLOGICAL TESTS AND METHODS IN DIAGNOSIS  Principles of measurement and test construction including an evaluation of standardized test instruments. Principles of broad-based assessment involving case history, criterion-referenced tests and informal assessment. Emphasis on understanding the strengths and limitations of a wide variety of assessment instruments.

LSI 444  CHARACTERISTICS AND DIAGNOSIS OF READING AND LEARNING DISABILITIES (Prerequisite(s)): LSI 443  Exploration of the theory and nature of reading and other learning disabilities. This course enhances a student's ability to interpret assessment data and develop a meaningful diagnostic hypothesis. A case study will develop the student's ability to integrate assessment information from a variety of sources, develop a learning profile, and write a diagnostic report.  PREREQUISITE(S): LSI 443.

LSI 445  REMEDIATION OF READING AND LEARNING DISABILITIES (Prerequisite: LSI 444)  A study of the theoretical and practical approaches to the remediation of reading and learning problems. Translation of diagnostic information into teaching strategies, and development of a remedial plan (IEP). Basic principles of diagnostic teaching will be introduced. Specific teaching techniques and materials will be reviewed, including appropriate uses of technology, as well as adaptations for LD students in the mainstream.  PREREQUISITE(S): LSI 444.

LSI 446  PSYCHOLOGY AND EDUCATION OF THE EXCEPTIONAL CHILD  Identification, characteristics, programs, schools,
curricular variations, techniques for securing maximal development. Includes historical background, current legal and service provision issues including mainstreaming and inclusion.

LSI 447 LANGUAGE DEVELOPMENT AND LEARNING DISABILITIES A review of the development of verbal language in normal and atypical learners, as presented by psycholinguistic and speech pathologists. Basic teaching procedures and evaluation of language skills will be emphasized.

LSI 448 STRATEGIES FOR TEACHING LEARNING DISABLED ADOLESCENTS A study of the theoretical and practical approaches to the remediation of reading and learning disabilities in adults and adolescents. Instructional techniques will be presented and remedial materials evaluated.

LSI 451 CHARACTERISTICS/DIAGNOSIS OF CHILDREN & ADOLESCENTS WITH BEHAVIOR DISORDERS Examines social, emotional, behavioral, and academic characteristics of students with emotional and behavioral disorders. Explores the origins of emotional and behavior disorders from a developmental perspective drawing on theory and research in risk and resiliency. Screening and assessment techniques are discussed and IEP development and placement options examined. Particular emphasis is placed on developing an understanding of the numerous types of disorders within a broad category of emotional and behavioral disorders.

LSI 452 METHODS OF TEACHING THE BEHAVIOR DISORDERED CHILD AND ADOLESCENT Strategies for improving the social, emotional, and academic adjustment and functioning of students with emotional and behavioral disorders are examined. Students in this course will develop an understanding of: classroom and behavior management; developing collaborative practices with multiple service providers; developing collaborative efforts with family and care providers; teaching social and emotional curricula; teaching in academic content areas; and monitoring growth and development in targeting adjustment areas.

LSI 453 CHARACTERISTICS AND DIAGNOSIS OF CHILDREN WITH MILD MENTAL RETARDATION Examines the social, emotion, behavioral, cognitive, communication, motor, and academic characteristics of students with mild mental retardation. Explores the theory and nature of intellectual and cognitive functioning as it related to learning and to mild mental retardation. Techniques for broad-based, formal and informal screening and assessment will be addressed.

LSI 454 INSTRUCTIONAL STRATEGIES FOR CHILDREN WITH MILD MENTAL RETARDATION A study of the theoretical and practical approaches to instruction of children with mild mental retardation. Strategies for improving the social, emotional, and academic functioning of these children are examined. Students will explore instructional guidelines, curricular adaptations, accommodations, functional assessment, and strategies for developing networks of support. Emphasis will be placed individualized planning (IEPs) that meet developmental, academic and transitional needs of students with mild mental retardation.

LSI 455 METHODS OF TEACHING CHILDREN AND ADOLESCENTS WITH PHYSICAL, MULTIPLE AND SEVERE DISABILITIES Focuses on addressing the intellectual, social, life-skills, and educational needs of children and adolescents with chronic health impairments, significant physical impairments, and multiple/severe disabilities. Examination of etiological factors, growth, development, and long-term outcomes. Developing collaborative efforts with family and multiple care and service providers is addressed. Includes experiences with assistive technology and designing and implementing a functional curriculum.

LSI 456 ADVANCED ISSUES AND STRATEGIES IN SPECIAL EDUCATION This course will examine current trends, issues, and strategies in the field of special education. This is an advanced course that will consider topics related to inclusion, overrepresentation, and transition services such as modifying curriculum, positive behavioral supports, collaboration and co-teaching, teacher scheduling, student scheduling, behavioral and academic data collection within general education classrooms, communication with families, developing and implementing IEPs, and managing paraprofessionals. Prerequisite: LSI 442 or 446 or equivalent.

LSI 457 SEMINAR AND RESEARCH IN SPECIAL EDUCATION This course examines current research in special education including topics such as the social construction of special education; the assumptions of deficit vs. difference
models of educational services; the overrepresentation of students of color and students from lower socioeconomic status backgrounds in special education; placement settings, inclusion, and service delivery models; and issues related to the short and long-term effects of special education on the lives of students with disabilities. Students select and pursue a topic of research interest and complete a professional portfolio. Prerequisite courses: LSI 458, LSI 467, LSI 468, LSI 469

LSI 458
TEACHING STUDENTS WITH HIGH INCIDENCE DISABILITIES I Introduction to the theoretical and practical approaches to instruction for students with high incidence disabilities across ages and levels of severity. Emphasis on developing an understanding of supportive learning environments, classroom and behavior management; developing collaborative practices with multiple service providers and families to meet the needs of diverse learners with high incidence disabilities. Strategies and materials for improving the social, emotional, and academic adjustment and functioning of students with high incidence disabilities are examined. Includes teaching social and emotional curricula; developing and implementing functional behavioral assessment; and monitoring growth and development in targeted areas. Strategies to increase the individual's self awareness, self-management, self control, self reliance, and self esteem are considered. Prerequisite course: LSI 442

LSI 460
SOCIAL-EMOTIONAL DEVELOPMENT AND CLASSROOM MANAGEMENT Focuses on theories and research related to social and emotional development and the implications of this work for children and youth with mild, moderate, and severe disabilities. Theories of social and emotional health are examined from a social-ecological perspective and research designed to enhance positive motivation, behavior, and emotional health in classrooms, schools, and communities is examined. Emphasis is placed on understanding social and emotional development in the contexts of classrooms, schools, families, peer groups, neighborhoods and the broader society. Students will begin to articulate a personal philosophy of classroom management

LSI 461
COLLABORATIVE PRACTICE AND SPECIAL EDUCATION The purpose of this course is to develop pre-service teachers' understanding of the importance of developing and maintaining collaborative relationships with parents and professionals in educational environments. Students will develop an understanding of professional and legal responsibilities, networks, organizations, and services available for students with disabilities and their families. Students will also examine various educational models for working collaboratively with teachers, parents, and support personnel in classrooms and schools. Students will articulate a personal philosophy and strategies for working collaboratively with families, teachers, paraprofessionals, and other professionals within educational environments.

LSI 462
INSTRUCTIONAL STRATEGIES FOR STUDENTS WITH DISABILITIES I: ACCESSING GENERAL EDUCATION CURRICULUM This course focuses general theories of learning, instructional modifications, accommodations, grouping strategies, technology, and assessments used for helping to provide students with disabilities access to general education curricula. Course topics will focus on the effectiveness of these strategies for working with students with mild, moderate, and severe disabilities. Students will begin to articulate a personal philosophy and approaches designed to enhance the educational experiences of children and youth with disabilities and they will begin to examine the relationship between schooling and long term outcomes.

LSI 463
INSTRUCTIONAL STRATEGIES FOR STUDENTS WITH DISABILITIES II: DIAGNOSIS AND REMEDIATION This course focuses on diagnostic and prescriptive techniques for identifying, targeting, and remediating social, academic, cognitive, and physical difficulties. These issues will be approached from an individual needs based perspective. Strategies and interventions designed to improve functioning in the above areas will be examined and, utilizing applied behavior analysis and technology, students will learn to target, monitor and intervene in need areas. All topics will incorporate the importance of skill generalization and post-school outcomes.

LSI 464
PROBLEMS AND ISSUES IN SPECIAL EDUCATION This course examines some of the legal, ethical and social issues related to the system of special education from a socio-historical perspective. Some of the topics will include: the social construction of special education; the assumptions of deficit vs. difference models of educational services; the overrepresentation of students of color and students from lower socioeconomic status backgrounds in special education; placement settings, inclusion, and service delivery models; and issues related to the short and long-term effects of special education on the lives of children and youth (transition).
LSI 465
INDUCTION INTO THE FIELD OF EDUCATION Designed primarily as a culminating course experience at the graduate level, this course utilizes a seminar approach to help students clarify their understanding of issues related to special education, general education, and teaching in urban schools. All students will prepare a portfolio based on their experiences within the graduate program. These portfolios will contain evidence of each student's development during the program and students will make connections between their own theoretical, philosophical, and professional orientations and the Urban Professional Multicultural Model.

LSI 467
TEACHING STUDENTS WITH HIGH INCIDENCE DISABILITIES II Continued study of the theoretical and practical approaches to instruction for students with high incidence disabilities across ages and levels of severity. Translation of diagnostic information into teaching strategies and development of an instructional plan (IEP) including transition needs. Emphasis on understanding theoretical models of literacy, literacy development, instructional strategies, and adjusting literacy instruction to meet the needs of diverse learners. Principles of diagnostic teaching will be discussed. Specific teaching techniques and materials will be reviewed, including appropriate uses of technology. Prerequisite course: LSI 442

LSI 468
TEACHING STUDENTS WITH LOW INCIDENCE DISABILITIES I Introduction to the theoretical and practical approaches to instruction of children with low incidence disabilities including functional assessment and instructional strategies, curricular options and adaptations, as well as levels of participation and accommodation in the general curriculum. Emphasis will be placed on understanding theoretical models of language development and communication, instructional strategies for language and communication, and adjusting language instruction to meet the needs of diverse learners. Candidates will explore individualized planning (IEPs), transition needs, integration of related services into the instructional program, and strategies and materials for improving the social, emotional, and academic functioning of diverse students with low-incidence disabilities. Prerequisite course: LSI 442

LSI 469
TEACHING STUDENTS WITH LOW INCIDENCE DISABILITIES II Continued study of the theoretical and practical approaches to instruction for diverse students with low incidence disabilities. Focuses on addressing the intellectual, educational, physical, motor, health, social, and transitional needs of diverse students with more severe low incidence disabilities. Examination of etiological factors, growth, development, and long-term outcomes. Developing collaborative efforts with family and multiple care and service providers is addressed. Provides strategies to facilitate maintenance and generalization of both academic and non-academic skills across learning environments. Includes experiences with assistive technology, community-based instruction, and designing and implementing a functional curriculum when needed. Prerequisite course: LSI 442

LSI 540
TESTING AND DIAGNOSIS/READING & LEARNING DISABILITIES:PRACTICUM IV (PREREQUISITE(S): LSI 445) Additional exposure to diagnostic testing in a clinical setting. Students evaluate children and adolescents with learning problems. Under close supervision, students administer and interpret tests, deal with the ethics of testing and interpretation, and communicate results to parents, schools and other agencies. PREREQUISITE(S): LSI 445 and prior permission of instructor.

LSI 542
TESTING/DIAGNOSIS OF READING & LEARNING DISABILITIES:PRACTICUM I (PREREQUISITE(S): LSI 445) Students participate in a clinical setting and evaluate children and adolescents with suspected learning problems. Under close instructor supervision, students will administer and interpret tests, deal with the ethics of testing, interpret and communicate results to parents, schools and other social agencies. PREREQUISITE(S): LSI 445 and prior permission of instructor.

LSI 543
DIAGNOSIS AND REMEDIATION OF LEARNING DISABILITIES:PRACTICUM II (PREREQUISITE(S): LSI 445) Clinical observation and practical application of the diagnostic-remedial process by working in a supervised clinical setting with children and adolescents who have specific learning disabilities. PREREQUISITE(S): LSI 445 and prior permission of instructor.

LSI 544
DIAGNOSIS AND REMEDIATION OF LEARNING DISABILITIES:PRACTICUM III (PREREQUISITE(S): LSI 445) Clinical observation and practical application of the diagnostic-remedial process by working in a supervised clinical setting with children and adolescents who have specific reading disabilities. PREREQUISITE(S): LSI 445 and
prior permission of instructor.

LSI 545
METHODS AND TECHNIQUES FOR TEACHING COMPREHENSION Comprehension is treated as an interactive process between reader, the instruction and the text. Using direct instruction and modeling, the teacher guides students in the interdependent use of prior knowledge, comprehension, metacognitive habits and attitudes when reading both narrative and expository texts.

LSI 547
CREATIVE METHODS/MATERIALS FOR TEACHING READING IN THE MAINSTREAMED CLASSROOM Emphasis on the creative utilization of a variety of multisensory techniques and materials designed for teaching reading, and reading related skills to learning disabled in the regular classroom.

LSI 548
INDEPENDENT STUDY IN READING AND OTHER LEARNING DISABILITIES (PREREQUISITE: PERMISSION)
PREREQUISITE(S): Permission of instructor, program chair and associate dean.

LSI 549
THESIS RESEARCH IN SPECIALIZED INSTRUCTION (PREREQUISITE(S): SCG 410 AND APPROVED THESIS PROPOSAL) A Master of Arts candidate conducts original research, writes a thesis, and presents an oral defense before a committee of faculty members. PREREQUISITE(S): SCG 410 and approved thesis proposal.

LSI 550
ASSESSMENT AND INSTRUCTION IN SOCIAL/ EMOTIONAL DISORDERS: PRACTICUM I Clinical observation and practical application of the diagnostic-remedial process by working in a supervised clinical setting with children and adolescents who have social/emotional disorders.

LSI 551
ASSESSMENT AND INSTRUCTION IN SOCIAL/ EMOTIONAL DISORDERS: PRACTICUM II Clinical observation and practical application of the diagnostic-remedial process by working in a supervised clinical setting with children and adolescents who have social/emotional disorders.

LSI 552
PRACTICUM EXPERIENCE WITH HIGH INCIDENCE DISABILITIES Six weeks of supervised field experience in a cooperating school working with students with high incidence disabilities, together with structured opportunities for feedback and discussion of issues and problems encountered. Prerequisite courses: LSI 458, LSI 467

LSI 553
PRACTICUM EXPERIENCE WITH LOW INCIDENCE DISABILITIES Six weeks of supervised field experience in a cooperating school working with low incidence disabilities, together with structured opportunities for feedback and discussion of issues and problems encountered. Prerequisite courses: LSI 468, LSI 469

LSI 585
STUDENT TEACHING AND SEMINAR IN SPECIAL EDUCATION-ELEMENTARY EDUCATION Five school days per week in supervised teaching experience for a full academic quarter. Students will also attend a student teaching seminar one day per week where they will discuss issues related to this experience. Faculty advisors and the Director of Student Teaching, working in conjunction with individual students, will determine appropriate student teaching placements. Prerequisite: Permission required

LSI 595
STUDENT TEACHING AND SEMINAR IN READING AND LEARNING DISABILITIES (PREREQ(S): SEE PROGRAM ADVISOR) (8 credits) Five school days per week in supervised teaching in a cooperating school for a full academic quarter together with opportunities for feedback and discussion of problems encountered. PREREQUISITE(S): Open only to students who have applied and been accepted into student teaching. See program advisor.

LSI 600
REGISTERED STUDENT IN GOOD STANDING (0 credit) This registration is required of all students who are not enrolled in a course but are completing course requirements and/or research. It provides access to University facilities. $50 per quarter.
REVIEW OF LITERATURE This paper will give students the opportunity to develop and demonstrate written competence in a subfield of their disciplines and to enhance life-long learning. Specifically, they will broaden their knowledge base and inform themselves about a topic, issue, theory, etc., reviewing and synthesizing existing literature. To do so, students will need a variety of bibliographic skills including searching data bases. In other words, students will need to be able to ask and answer such questions as "What is known about? What are major issues and themes?"

LSI 607
INTEGRATIVE PAPER Students will observe and/or participate in the reciprocal interaction of theory and practice, by investigating actual practice in the field as it relates to theory. This might take the form of investigating how a particular theory is applied in the field, developing a practical application of a theory, or conversely, developing/refining a theory based on investigations made in the field. In other words, as graduates encounter new theories and practices they will need to be able to investigate and evaluate them, asking and answering questions about "How theories work."

LSI 608
CAPSTONE IN LANGUAGE, LITERACY, AND SPECIALIZED INSTRUCTION Culminating experience(s) that help(s) students acquire the qualities of professionalism and leadership needed to play a significant role in one's professional education community. Students are expected to situate and understand educational issues in a larger context; keep current in and be able to organize and present a body of research on an education-related question; connect research with practical, professional activity; demonstrate mastery of a sub-field of a discipline; write in a format that meets accepted scholarly criteria and participate in an ongoing professional conversation. A final product such as master's paper(s), comprehensive exam, or collection of professional work products is required.

LSI 643
MISCUE ANALYSIS Theory and practice in miscue analysis is examined historically and currently. Focus is on increasing the range of instructional strategies available to the teacher of reading.

LSI 645
WORKSHOP IN READING AND LEARNING DISABILITIES Topics of current interest to the regular education teacher and the special educator in a high-involvement seminar format.

LSI 646
TEACHING READING TO THE DISADVANTAGED Consideration of the linguistic, demographic, cultural and educational factors believed to influence the teaching of reading to the disadvantaged. Examination of teaching methods and materials appropriate for disadvantaged students.

LSI 647
CHILDREN'S LITERATURE This course will familiarize the student with various genres of quality children's literature and how to select books which are appropriate to children's developmental levels. Students will also be introduced to literature from various cultures and ethnic groups, and learn how to extend, evaluate, and use children's literature throughout the curriculum.

LSI 648
CORRECTIVE READING PROBLEMS Techniques appropriate to the diagnosis of corrective reading problems in a classroom setting, along with methods and materials. Emphasis on informal assessment techniques and methods of instruction that allow for the creation of individualized learning environments in group settings.

LSI 649
TEACHING READING IN THE CONTENT AREAS Focus on the special skills and problems involved in the teaching of reading in the content areas. Includes the place of content reading in the development of skilled reading and methods, and techniques of improving the teaching of reading in the content areas.

LSI 96 FIELD EXPERIENCE FOR DUAL CERTIFICATION (non-credit) Required of all Dual Certification students. Observations and participatory experience with children and youth in a school or agency. The observation hours are a prerequisite for student teaching and related professional courses. A total of 200 hours are required.
Latin

Graduate Course Descriptions  ▶  Latin

Latin

LAT 497
SPECIAL TOPICS IN LATIN
See schedule for current offerings. Graduate standing required.

LAT 498
FOREIGN STUDY [PREREQ(S): PERMISSION]
Variable credit. Prerequisite(s): permission required. Graduate standing required.

LAT 499
INDEPENDENT STUDY [PREREQ(S): PERMISSION OF CHAIR & INSTRUCTOR]
Variable credit. Permission of chair and instructor required. Graduate standing required.

Liberal Studies in Education

Graduate Course Descriptions  ▶  Liberal Studies in Education

Liberal Studies in Education

LSE  404
CHILD REARING ACROSS CULTURES Study of child-rearing practices, the effects of culture on cognitive development and the implications for teaching strategies for the child whose first language is not English.

LSE  420
COMPARATIVE EDUCATION This course is devoted to the study of historical and contemporary issues related to comparative education-with an emphasis upon early childhood, elementary, and secondary levels. Through a comparative study of educational public policy, we will examine assumptions about the aims and purposes of education and schooling in terms of economic, political and social dimensions. Major topics and issues addressed will include the following: examining what it means to be educated; examining similarities and differences in the ways developed and developing countries educate children and youth; the organization and structure of educational institutions; disconcerning implicit and explicit values in different approaches to teaching and learning; relationships between schools and communities; education and the issues of change and social justice.

LSE  430
EDUCATION AND SOCIAL JUSTICE  (CROSS-LISTED AS LSE 258) A variable-topics course designed to examine education within a philosophical framework which focuses upon the relatively great potential of education as an agent for social justice and change. Through the examination of current issues and concerns, students are expected to engage in critical analysis, reflect upon theoretical frameworks, examine public policies and values, and consider ways in which schools and educators can promote the development of social justice. Each time the course is offered it will focus on one of the following topics: gender; ethnicity; language and culture; or social class and economic opportunity. For each topic, attention will be given to the issues of institutional responses to differences, equity, access and outcomes.

LSE  438
GENDER AND EDUCATION A variable-topics course designed to actively engage students in examination of the literature and issues related to gender and education. Curriculum, teaching and learning, achievement, and the organization structure and culture of schools are among the key concerns. Gender will be addressed as it intersects with other forms of inequality and difference: race, ethnicity, class, etc. Each time the course is offered it will focus on a particular topic, but for each topic attention will be given to issues about
institutional responses to inequality and differences.

LSE 450
DYNAMICS OF AFRICAN-AMERICAN CULTURE (CROSS-LISTED AS SOC 490) (Cross-listed as SOC 490) This course is intended for those interested in cultural and human relations in order that they may examine the contributions of the black person to American Culture; gain a functional understanding of the social, economic and political development of the black person on America itself.

LSE 460
INTERNATIONAL STUDIES IN EDUCATION This variable-topics course will focus upon educational issues in a particular country or region outside of the United States. Through comparative study, a number of issues will be addressed: aims and purposes of education and schooling; economic, political, social and cultural contexts of educational policies; similarities and differences in organization and structure of educational systems; relationships between home, community and educational institutions; education, development and issues of social change.

LSE 461
INTERNATIONAL STUDIES IN TEACHING AND LEARNING This variable-topics course will focus upon aspects of curriculum, teaching and learning in a particular country or region outside of the United States. It requires work in the chosen country or region under the guidance of teachers familiar with its educational practices. The course will examine how curriculum is organized, developed and implemented in classrooms and schools with concentration on particular subjects or levels. From a comparative perspective, particular attention will be paid to the values and assumptions underlying curriculum and teaching.

LSE 462
INTERNATIONAL FIELD EXPERIENCES IN EDUCATION Through clinical experience outside of the United States, students will observe, participate in and reflect upon teaching and learning in cultural settings that differ from their own. This field experience abroad provides an opportunity to develop an understanding of what it means to be educated in the context of another society or culture. The intent of this experience is to add more global perspective to one’s own professional knowledge and practice. Variable credit, ranging from 2-8 quarter hours can be earned, dependent upon the nature and duration of this field experience.
MATHEMATICAL SCIENCES

MAT 400
APPLIED ABSTRACT ALGEBRA I Applied Abstract Algebra I

MAT 401
APPLIED ABSTRACT ALGEBRA II (PREREQ(S): MAT 400) Applied Abstract Algebra II PREREQUISITE(S): MAT 400

MAT 441
APPLIED STATISTICS I Parametric and non-parametric statistical inferential methods for the univariate and bivariate situations using SAS. Specific topics include classical and exploratory graphical and numerical methods of data descriptions; inference about means, medians, and associations including analysis of variance and linear regression. Data analytic projects are an integral part of the course. PREREQUISITE(S): One statistic course or consent of instructor.

MAT 442
APPLIED STATISTICS II (PREREQ(S): MAT 441) A continuation of MAT 441. Repeated measures design, association, analysis of covariance, and multivariate relationships. Diagnostics and model building. Methods of categorical data analysis. Logistical regression and log-linear models. Data analytical projects using SAS are an integral part of the course. PREREQUISITE(S): MAT 441

MAT 443
APPLIED STATISTICS III A continuation of MAT 442. The course material generalizes univariate methods of inference to multivariate situations using SAS. Specific topics include canonical correlation, discriminate analysis, principal component analysis, factor analysis, and multivariate analysis of variance. Emphasis in the course is on data analytic projects. PREREQUISITE(S): MAT 442

MAT 448
STATISTICAL METHODS USING SAS (PREREQ(S): MAT 351 OR 451 OR CONSENT) The SAS programming language. Data exploration, description and presentation. Inference methods for continuous and categorical data. Analysis of variance models and regression procedures. PREREQUISITE(S): MAT 351 or 451 or instructor's consent.

MAT 451
PROBABILITY AND STATISTICS I (COREQ(S): MAT 260 OR CONSENT) The course covers elements of probability theory; distributions of random variables and linear functions of random variables; moment generating functions; and discrete and continuous probability models. COREQUISITE(S): MAT 260

MAT 452

MAT 453
PROBABILITY AND STATISTICS III (PREREQ(S): MAT 452) A continuation of MAT 452. More on hypothesis testing, most powerful, uniformly most powerful, and likelihood ratio tests. Introduction to the analysis of variance; linear regression; categorical data analysis, and nonparametric methods of inference. PREREQUISITE(S): MAT 452

MAT 454
MULTIVARIATE STATISTICS (PREREQ(S): MAT 453)(CROSS-LISTED 354) The multivariate normal distribution. The general linear model. Multivariate regression and analysis of variance; discriminant analysis; principal
The general linear model. Multivariate regression and analysis of variance; discriminant analysis; principal component and factor analysis; applications and use of statistical software. PREREQUISITE(S): MAT 453.

MAT 455

MAT 456
APPLIED REGRESSION ANALYSIS (CROSS-LIST: MAT 356) (PREREQUISITE: 348 OR 452) Simple linear, multiple, polynomial and general linear regression models. Selection of best regression equation and examination of residuals for homoscedasticity and other diagnostics. Use of statistical software. PREREQUISITE(S):MAT 453 and MAT 220 or MAT 262 or consent.

MAT 457
NONPARAMETRIC STATISTICS (CROSS-LISTED: MAT 357) (PREREQ(S): MAT 453 OR CONSENT) Inference concerning location and scale parameters, goodness-of-fit tests, association analysis, and tests of randomness using distribution-free procedures. PREREQUISITE(S): MAT 453 or consent of the instructor.

MAT 458
STATISTICAL QUALITY CONTROL (PREREQ(S): MAT 348 OR 451) History; Deming guide to quality; graphical techniques of process control; Schewhart's control charts for means, ranges, standard deviations, individual measurements, and attributes; process capabilities and statistical tolerance; cumulative-sum charts, product liability; acceptance sampling; product and process design; applications and case studies. PREREQUISITE(S): MAT 348 or 451.

MAT 459
SIMULATION MODELS AND THE MONTE CARLO METHOD (CROSS-LIST:359) (PREREQ(S): MAT 453) Techniques of computer simulation of the classical univariate and multivariate probability models, and such random processes as random walks, Markov chains, and queues. PREREQUISITE(S): MAT 453

MAT 460
TOPICS IN STATISTICS (PREREQUISITE: INSTRUCTOR CONSENT) One of the following topics: Clinical trials; Reliability and life testing; Categorical data analysis; Meta analysis; Survival Models. PREREQUISITE(S):consent of instructor.

MAT 461
ACTUARIAL SCIENCE I: THEORY OF INTEREST (CROSS-LISTED AS MAT 361) (PREREQ(S): MAT 152 OR 162) Theory of Interest: Theory and application of compound interest to annuities, amortization schedules, sinking funds, bonds, and yield rates. PREREQUISITE(S):MAT 152 or MAT 162 or equivalent.

MAT 462
ACTUARIAL SCIENCE II: BASIC CONTINGENCIES (CROSS-LISTED: MAT 362)(PREREQ(S): MAT 461) Basic Contingencies: The theory and applications of contingency mathematics in life and health insurance annuities and pensions, from both a probabilistic and a deterministic viewpoint. Topics include survival distribution and life tables, life insurance and life annuities. PREREQUISITE(S): MAT 461.

MAT 463

MAT 464
STOCHASTIC RISK MODELS (PREREQ(S): MAT 453) Introduction to risk theory and applications. Economics of insurance, individual risk models for short-term and single-term, collective risk models over an extended period, and applications. PREREQUISITE(S): MAT 453.

MAT 465
STATISTICAL SURVIVAL MODELS (PREREQ(S): MAT 453) (Cross-listed as MAT 365) Mathematical methods for population analysis and survival models. PREREQUISITE(S): MAT 453.

MAT 466
MATHEMATICAL DEMOGRAPHY (PREREQ(S): MAT 453) Introduction to demography, mortality table construction and methods of population and demographic analysis. PREREQUISITE(S): MAT 453
MAT 467
CREDIBILITY THEORY (PREREQ(S): MAT 462) Credibility theory and loss distributions with applications to
insurance classification and ratemaking. PREREQUISITE(S): MAT 462.

MAT 468
MATHEMATICAL METHODS IN FINANCE (PREREQ(S): MAT 338, 355 & FIN 320 OR PERMISSION OF INSTRUCTOR)
This course will be required of students in the Financial Mathematics concentration. The main topics will be
stochastic calculus and partial differential equations leading up to a derivation of the Black-Scholes option
pricing model and its variants, along with discrete methods. This course should also be of interest to students
of applied mathematics and physics. There will be opportunity to analyze real option data in conjunction with
theory. Possible additional topics would include numerical methods, dividends, options on futures and exotic
options. Prerequisite(s): MAT 338, 355 & FIN 320 or permission of instructor.

MAT 470
ADVANCED LINEAR ALGEBRA (X-LISTED AS MATH 370) [PREREQ(S): MAT 262 AND EITHER MAT 141 OR 215]
Vector spaces, basis and dimension; matrix representation of linear transformations and change of basis;
diagonalization of linear operators; inner product spaces; diagonalization of symmetric linear operators,
principal-axis theorem, and applications. PREREQUISITE(S): MAT 262 and either 141 or 215.

MAT 481
FOURIER ANALYSIS AND SPECIAL FUNCTIONS (PREREQ(S): MAT 262 OR CONSENT) The course covers the basic
principles of discrete and continuous Fourier analysis and some of its applications currently used in scientific
modeling. Students will use the computer to implement the computational algorithms developed in the
course. Some of the topics covered will include Fourier transforms and their application to signal and image
processing, discrete Fourier series, the fast Fourier transform algorithm and applications to digital filtering,
and the Radon transforms and its applications to tomography. PREREQUISITE(S): MAT 262 or equivalent.

MAT 484
MATHEMATICAL MODELING (CROSS-LISTED AS MAT 384) (PREREQ(S): MAT 220 OR 262 AND MAT 451 OR 348.)
Modeling of real world problems using mathematical methods. Includes a theory of modeling and a study of
specific models, selected from deterministic stochastic, continuous and discrete models. PREREQUISITE(S):
MAT 220 or 262 and MAT 451 or 348.

MAT 485
NUMERICAL ANALYSIS I (CROSS-LISTED AS MAT 385) (PREREQ(S): MAT 220 or 262) Use of a digital computer
for numerical computation. Error analysis, Gaussian elimination and Gauss-Seidel method, solutions of linear
and nonlinear equations, function evaluation, cubic splines, approximation of integrals and derivatives, Monte
Carlo methods. PREREQUISITE(S): MAT 262 or MAT 220 or equivalent and a programming course.

MAT 486
NUMERICAL ANALYSIS II (CROSS-LISTED AS CSC 386/486, MAT 386) (PREREQ(S): MAT 485) Theory and
algorithms for efficient computation including the Fast Fourier Transform. Numerical solution of nonlinear
systems of equations. Minimization of functions of several variables. Sparse systems of equations and
eigenvalue problems. PREREQUISITE(S): MAT 485

MAT 487
OPERATIONS RESEARCH I: LINEAR PROGRAMMING (CROSS-LISTED AS MAT 387)(PREREQ(S): MAT 220 OR 262)
The linear programming problem and its dual; the simplex method; transportation and warehouse problems;
computer algorithms and applications to various fields. PREREQUISITE(S): MAT 220 or MAT 262 or equivalent.

MAT 488
OPERATIONS RESEARCH II: OPTIMIZATION THEORY (CROSS-LISTED AS MAT 388)(PREREQ(S): MAT 487) Integer
programming; nonlinear programming; dynamic programming. PREREQUISITE(S): MAT 487 or by consent of
instructor.

MAT 489
QUEUING THEORY WITH APPLICATIONS (PREREQ(S): MAT 453) Discrete and continuous-time Markov chain
models, Queuing systems, and topics from renewal and reliability theory. PREREQUISITE(S): MAT 453.

MAT 494
GRAPH THEORY AND NETWORK FLOWS Directed and undirected graphs. Bipartite graphs. Hamiltonian cycles
MAT 495  

MAT 496  
GAME THEORY  The minimax theorem for two-person, zero-sum games. Two-person general-sum games and noncooperative person games; Nash equilibrium.

MAT 512  
APPLIED TIME SERIES AND FORECASTING  (CROSS-LISTED AS MAT 358) (PREREQ(S): MAT 453 OR 348)  
Development of the Box-Jenkins methodology for the identification, estimation and fitting of ARIMA, and transfer-function stochastic models for the purpose of analyzing and forecasting stationary, non-stationary, and seasonal time series data. The course emphasizes practical time series data analysis, using computer packages and includes applications to economic, business and industrial forecasting. PREREQUISITE(S): MAT 453 or MAT 348.

MAT 526  
SAMPLING THEORY AND METHODS  (CROSS-LISTED AS MAT 326)(PREREQ(S): MAT 453 OR 348)  

MAT 528  
DESIGN AND ANALYSIS OF EXPERIMENTS  (PREREQ(S): MAT 348 OR 453)  
Single-factor fixed, random and mixed designs with and without restrictions on randomization?s, including randomized block designs, Latin & Graeco-Latin squares. Factorial and fractional factorial experiments. Nested and split-plot designs. Confounding and response surface methodology. PREREQUISITE(S): MAT 453 or 348.

MAT 599  
INDEPENDENT STUDY  Offered by arrangement. Approval by department chair required.

MAT 600  
MATHEMATICS SOFTWARE FOR TEACHERS  Mathematics Software For Teachers

MAT 602  
CANDIDACY CONTINUATION  Non-credit. Required of all students who are not registered for regular courses but who occasionally utilize University facilities during completion of course requirements and/or research. $40.00 per quarter.

MAT 606  
MATHEMATICS SOFTWARE FOR TEACHERS  Introduction to various mathematical software packages for the investigation of significant mathematical ideas. Emphasis will be on the use of software in the high school classroom for the enhancement of students' discovery and understanding of fundamental mathematical concepts.

MAT 607  
LOGO FOR MATHEMATICS TEACHERS  Logo For Mathematics Teachers

MAT 608  
SECONDARY SCHOOL MATHEMATICS CURRICULUM  ISSUES  Issues underlying the organization of mathematics curricula. Analysis of existing and proposed patterns of organization. Results of recent research in mathematics education regarding selecting and ordering content.

MAT 609  
TEACHING AND LEARNING SECONDARY SCHOOL  MATHEMATICS  Theories, methods, materials and techniques for teaching and learning mathematics in secondary, middle, and upper-elementary schools.

MAT 610  
CALCULUS AND ANALYSIS FOR MATHEMATICS  TEACHERS I  Real numbers, exponentials and logarithms, trigonometric functions, limits, the derivative and its applications. Introduction to graphing calculators and some applications to classroom teaching.

MAT 611
CALCULUS AND ANALYSIS FOR MATHEMATICS TEACHERS II (PREREQ(S): MAT 610) Concave and convex functions, optimization, the integral and its applications. Study of some numerical algorithms and implementation using graphing calculators PREREQUISITE(S): MAT 610.

MAT 612
CALCULUS AND ANALYSIS FOR MATHEMATICS TEACHERS III (PREREQ(S): MAT 611) Methods of integration, first and second order differential equations and Taylor series. Applications to numerical analysis and approximation with graphing calculators. PREREQUISITE(S): MAT 611.

MAT 620
GEOMETRY FOR SECONDARY SCHOOL MATHEMATICS TEACHERS Axiom systems, types of reasoning used in proofs, Euclidean geometry results with concentration on triangles and circles, introduction to non-Euclidean geometry, and introduction to geometry classroom software.

MAT 621
EXPLORATIONS IN TURTLE GEOMETRY (PREREQ(S): MAT 620) (COREQ(S): MAT 611) Explorations In Turtle Geometry (prereq.: 620) (corequisite: 611)

MAT 625
GEOMETRY, NUMBER PATTERNS, AND THE NCTM STANDARDS Geometry, Number Patterns, And The NCTM Standards

MAT 630
HISTORY OF MATHEMATICS THROUGH PROBLEM SOLVING I Classical problems and techniques in number theory, algebra and geometry from a historical point of view. Stress on both historical aspects of mathematics and on solutions of concrete problems.

MAT 631
HISTORY OF MATHEMATICS THROUGH PROBLEM SOLVING II (PREREQ(S): 630) Continuation of MAT 630. Topics include the development of calculus, probability theory, number theory, non-Euclidean geometry, and set theory. PREREQUISITE(S): MAT 630.

MAT 640
MULTIVARIABLE CALCULUS FOR TEACHERS Functions of several variables, vectors, dot products and cross products, partial differentiation, directional derivatives, optimization, Lagrange multipliers, multiple integrals, polar spherical coordinates. Use of graphing calculators and computers to illustrate concepts.

MAT 650
PROBABILITY & STATISTICS FOR MATHEMATICS TEACHERS I (PREREQ(S): MAT 611) Combinatorics, sets, probability, random variables, distribution and density functions, standard probability laws, jointly distributed random variables. Use of computers to illustrate distributions. PREREQUISITE(S): MAT 611.

MAT 651
PROBABILITY & STATISTICS FOR MATHEMATICS TEACHERS II (PREREQ(S): MAT 650) Central limit theorem, point and interval estimation of parameters, hypothesis testing, least squares and regression. PREREQUISITE(S): MAT 650.

MAT 660
DISCRETE STRUCTURES FOR MATHEMATICS TEACHERS Logic and proof, number theory, sequences and mathematical induction, sets and functions, cardinality recursion, and introduction to combinatorics.

MAT 670
ABSTRACT AND LINEAR ALGEBRA FOR TEACHERS Number systems, polynomial rings, fields, vector spaces, and groups. This course provides the theoretical foundation for many topics covered in high school mathematics courses. PREREQUISITE(S):MAT 612 and MAT 660 or consent of program director.

MAT 680
FOUNDATIONS OF CALCULUS FOR ADVANCED PLACEMENT TEACHERS Completeness properties of the real number line, limit theorems, the intermediate value theorem, the existence of the definite integral, differential equations, and slope fields. Students will review problems from recent AP Calculus examinations and each topic will be linked to specific problems on the AP exams.
MATHEMATICAL PEDAGOGY: THEORY AND PRACTICE (CROSS-LISTED: MAT 397) Introduction to current theories and practices in college mathematics instruction; designed to prepare students to work as consultants in mathematics instruction by helping them develop a deeper understanding of fundamental mathematical concepts and an awareness of how people learn mathematical ideas. Mathematical tutoring practicum is required. Four-credit hour course offered over a two quarter span during the autumn and winter quarters only. PREREQUISITE(S): Permission of instructor. See instructor for further information.

MAT 699
TOPICS IN MATHEMATICS FOR TEACHERS (PREREQUISITE: CONSENT OF INSTRUCTOR) Diverse topics in mathematical modeling or mathematical appreciation germane to the secondary school classroom. PREREQUISITE(S): consent of instructor.

Media and Cultural Studies

Graduate Course Descriptions

Media and Cultural Studies

MCS 501
INTRODUCTION TO MEDIA STUDIES This course introduces students to the field of media studies. In addition to a broad historical overview, students are introduced to media studies traditions in the social sciences and humanities including mass communications, media effects studies, political economy, media policy and textual/content analysis. Students learn the historical trajectory of these media studies disciplines and how they have shaped the field of study as well as historiographic methods for understanding and writing about media history.

MCS 502
MEDIA AND CULTURAL STUDIES This course provides students with a theoretical and methodological background in the interdisciplinary field of cultural studies, which considers media and culture as sites for the construction and contestation of race, class, gender, ethnicity, sexuality and nation. The course provides a foundation in critical cultural studies, ideology critique, critical race and gender studies, transnational media studies and active audience studies.

MCS 503
GLOBAL MEDIA This course surveys a number of frameworks for understanding the global dynamics that constitute particular media cultures around the world. We will examine historical perspectives and debates concerning the processes of globalization and the media’s constitutive role in impacting our conceptions of space and time across local, national and transnational terrains. Students will interrogate how the actions of nation states, civil society and transnational corporations impact media industries and ask how media representations are contested across registers of nation, region, citizenship, class, religion, labor, gender, Diaspora, race, migration and ethnicity.

MCS 520
TOPICS IN MEDIA STUDIES This is a seminar that focuses on a particular area of media studies including, but not limited to, topics such as the contemporary media industries, kids media culture, television studies, music cultures, digital divide, race and media, celebrity culture, radio studies, war and media, gender and media, global television, new media studies and sexuality and media. Students may take this seminar repeatedly in different topic areas.

MCS 521
TOPICS IN CINEMA STUDIES This is a seminar-level course that provides in-depth examinations of Cinema Studies topics. Topics vary from quarter to quarter and may include studies of film genres, film authorship, national cinemas, global cinema, gender in cinema, animation, film theory, early cinema, film aesthetics, race and representation, film sound studies, or other rotating topics.

MCS 530
NEW MEDIA AND CULTURE This seminar considers the cultural ramifications of new media in shaping life experience and opportunity. As interactive digital media technologies expand opportunities for social networking, text and instant messaging, file sharing, collaborative authoring, blogging, podcasting and mobile communication, this seminar asks how these new technologies impact identity formation, creative participation and concepts of public culture. Issues of concern include race, gender, class, sexuality, cultural citizenship, fandom, subcultures and democratic participation.

MCS 531
MEDIA POLICY This seminar considers the regulatory policies that have shaped media culture including those governing ownership, content, labor and intellectual property. The focus is on how citizens, industries, governments and social movements have sought to impact the role of media in public and private life including issues such as civil rights, media conglomeration, sex and violence, free speech, public access, children’s media, public radio/TV, fair use in copyright, international governance, commercialization and equal opportunity. Students engage with these issues through investigating historical and contemporary case studies within local and global contexts.

MCS 532
ASIAN CINEMA/MEDIA This seminar examines the cultural, social and economic contexts to Asian cinema/media. The course focuses on national and regional cinema/media industries and their transnational contexts of production, circulation and reception. Students consider questions of identity and cultural difference, particularly in relation to immigration, Diasporas, transnationalism, youth culture, class, gender, sexuality, race and ethnicity. As well as an historical survey, the course considers recent developments as digital technologies impact Asian media cultures.

MCS 533
LATIN AMERICAN CINEMA/MEDIA This seminar examines the production, distribution and impact of cinema and media in the Latin American context. We will view a range of works from major and minor industries and investigate how social, economic and political forces have shaped or are presently influencing and transforming national cinemas and their industries. Questions of identity and cultural difference, particularly in relation to immigration, diasporas, transnationalism, youth culture, class, gender, sexuality, race and ethnicity are central to the discussions. We will consider the diversity of styles and topics as much as the discursive and theoretical frameworks that in the past defined, or those that are now redefining, the cinema and media of the region.

MCS 534
DOCUMENTARY STUDIES This course examines the rise and growth of documentary forms, including audio, film, television, photography, and literary journalism. Students will study representative works from each documentary approach and learn to analyze the techniques of observation and representation at use in these pieces. Students will become familiar with the social, aesthetic, and historical discourses of documentary and understand major theoretical and critical approaches of analyzing documentary forms. Students will become aware of the convergent and divergent qualities that are features of qualitative research, journalism, and documentary practice. Students will learn how documentary functions as a witness to personal and public histories.

MCS 541
AUDIO DOCUMENTARY Through practical application and the exploration of cultural reporting and documentary approaches to communication, we will consider questions that surround the interpretation and representation of cultural experience. We will analyze and create audio documentaries in an effort to understand better a significant form of storytelling. There are three central learning objectives that will guide us through the course: (1) we will develop an understanding of the techniques people use to observe, (2) we will develop an understanding of the aesthetic and structural choices people make to explain what they do, and (3) we will use this knowledge to inform the production of our audio documentary projects.

MCS 542
TOPICS IN PRODUCTION This course allows students to take production courses from across the university including, but not limited to, Advanced Sound Design, Advanced Non-linear Editing, Documentary Production, Advanced Cinematography, Document Design, Online Documentation, Writing and Technology, Web Design I and Web Design II.

MCS 592
INDEPENDENT STUDY Students who select the Thesis or Project Option take this course to conduct research for their thesis/project in consultation with a faculty member of their choice. Other students may also use this course to work with a faculty member on an independent study. Students can take only one Independent
MCS 599
THESIS/PROJECT SUPERVISION Students who select the Thesis or Project Option must take this course while they write their thesis or finish their project. Students work closely with their chosen advisor in completing their thesis/project.

Music Education

Graduate Course Descriptions Music Education

**Music Education**

MED 401
SEMINAR IN MUSIC EDUCATION I: HISTORY AND PHILOSOPHY OF MUSIC EDUCATION (4 credits) The courses are designed 1) to develop a philosophical and historical perspective of music education; 2) to study the psychology of music; 3) to study topics in curriculum design; 4) to encourage study and research in areas of student interest and need; and 5) to study contemporary issues in music education that can have significant impact on classroom teaching.

MED 402
SEMINAR IN MUSIC EDUCATION II: PSYCHOLOGY OF MUSIC TEACHING & LEARNING (4 credits) The courses are designed 1) to develop a philosophical and historical perspective of music education; 2) to study the psychology of music; 3) to study topics in curriculum design; 4) to encourage study and research in areas of student interest and need; and 5) to study contemporary issues in music education that can have significant impact on classroom teaching. PREREQUISITE(S): Successful completion of MED 401.

MED 403
SEMINAR IN MUSIC EDUCATION III: CURRICULUM DEVELOPMENT IN MUSIC EDUCATION (4 credits). The courses are designed 1) to develop a philosophical and historical perspective of music education; 2) to study the psychology of music; 3) to study topics in curriculum design; 4) to encourage study and research in areas of student interest and need; and 5) to study contemporary issues in music education that can have significant impact on classroom teaching. PREREQUISITE(S): Successful completion of MED 402.

MED 492
TECHNIQUES OF RESEARCH IN MUSIC EDUCATION This course will examine the basic questions, issues and theoretical frameworks central to the purpose, conceptualization, conduct, writing, reading, and the use of educational research as a means for informing educational theory, practice and policy.

MED 498
MASTERS CANDIDATE RESEARCH

MED 499
INDEPENDENT STUDY

Music Ensemble

Graduate Course Descriptions Music Ensemble

**Music Ensemble**
MEN 401  
WIND SYMPHONY (1 credit)  Study and rehearsal of basic and new band repertoire in preparation for concerts presented regularly each year. All MEN courses are repeatable courses. Placement audition required.

MEN 402  
WIND SYMPHONY (0 credit)  Study and rehearsal of traditional and new band repertoire in preparation for concerts presented regularly each year. Placement audition required. All MEN courses are repeatable courses.

MEN 403  
MEN’S CHORUS (0 credit)  Rehearsal and performance of men’s and mixed choir repertoire. Auditions not required. All MEN courses are repeatable courses.

MEN 404  
WOMEN’S CHORUS (0 credit)  Women’s and mixed choir repertoire. Audition not required. All MEN courses are repeatable courses.

MEN 406  
CONCERT CHOIR (0 credits)  Rehearsal and performance of choral works from a variety of styles and historical periods. Audition not required for membership, but auditions for section placement are held at the beginning of each quarter. All MEN courses are repeatable courses.

MEN 407  
ORCHESTRA (0 credit)  Study and rehearsal of traditional and new orchestra repertoire. Placement audition required. All MEN courses are repeatable courses.

MEN 408  
WIND ENSEMBLE (0 credit)  A select organization, rehearsal and performance of literature for ensembles of eight to forty players, with special emphasis on original literature for winds, from all historic periods. All MEN courses are repeatable courses. Placement audition required.

MEN 409  
UNIVERSITY SINGERS (0 credit)  A choral ensemble of selected voices. Placement audition required. All MEN courses are repeatable courses.

MEN 410  
CHAMBER MUSIC (0 credit)  A practical application of performance techniques for advanced instumentalists and vocalists; repertoire adapted to the instrumentation of the class according to the ability of the class member; public performance. All MEN courses are repeatable courses.

MEN 421  
MEN’S CHORUS (1 credit)  Rehearsal and performance of men’s and mixed choir repertoire. Auditions not required. All MEN courses are repeatable courses.

MEN 422  
WOMEN’S CHORUS (1 credit)  Rehearsals and performance of women's and mixed choir repertoire. All MEN courses are repeatable courses.

MEN 423  
CONCERT CHOIR  Rehearsal and performance of choral works from a variety of styles and historical periods. Audition not required for membership, but auditions for section placement are held at the beginning of each quarter.

MEN 431  
ORCHESTRA (1 credit)  Study and rehearsal of basic and new orchestral repertoire. All MEN courses are repeatable courses. Placement audition required.

MEN 437  
WIND ENSEMBLE (1 credit)  A select organization; rehearsal and performance of literature for ensembles of eight to 40 players, with special emphasis on original literature for winds, from all periods. All MEN courses are repeatable courses. Placement audition required.
MEN 441  
CHAMBER MUSIC (1 credit) A practical application of performance techniques for advanced instrumentalists and vocalists repertoire adapted to the instrumentation of the class, according to the ability of class members; public performance.

MEN 447  
UNIVERSITY SINGERS (1 credit) A choral ensemble of selected voices. All MEN courses are repeatable courses. Placement audition required.

MEN 485  
JAZZ VOCAL ENSEMBLE (1 credit) Study, rehearsal and performance of literature for jazz ensemble. All MEN courses are repeatable courses. Placement audition required.

MEN 486  
JAZZ VOCAL WORKSHOP (1 credit) Survey of contemporary jazz and pop vocal techniques. Primary emphasis on developing jazz vocal solo and ensemble performance skills. All MEN courses are repeatable courses. Placement audition required.

MEN 498  
INDEPENDENT STUDY

Management

Graduate Course Descriptions Management

MGT 444  
DEVELOPMENTAL ASSESSMENT CENTER. PREREQUISITE(S): GRADUATE STANDING Students participate in a developmental assessment center designed to assess their managerial and interpersonal skills including teamwork, oral and written communication, ethical decision-making, initiative and planning. Students receive extensive feedback regarding their performance. Based upon this feedback, personal development plans are created to be used throughout the curriculum. PREQUISITE(S): Graduate Standing

MGT 500  
MANAGING EFFECTIVE AND ETHICAL ORGANIZATIONAL BEHAVIOR (PREREQ: GRADUATE STANDING) Students will critically examine ethical and creative methods to solve problems related to managing individuals and teams. Students utilize feedback from a developmental assessment center assessing their managerial and interpersonal skills. Personal development plans are created and skills developed throughout the course. Skill development domains include perception, attribution, motivation, learning leadership, communication, team development, managing change and conflict, decision-making, power and politics and business ethics. PREREQUISITE(S): Graduate Standing.

MGT 501  
STRATEGIC SUPPLY CHAIN MANAGEMENT (PREREQ: GRADUATE STANDING) This course examines how operations related strategic decisions can lead to improved market and competitive performance. We view the supply chain (of products or services) from a strategic point of view. The design of an expedient logistics system is critically linked to the key decisions and objectives of a responsive and efficient supply chain (forecasting, aggregate planning, inventory management, matching supply with demand, transportation, location and information). We cover those topics with cases, spreadsheets and simulations to illustrate and help understand how logistical decisions impact the performance of the firm as well as the entire supply chain. PREREQUISITE(S): Graduate Standing.

MGT 502  
MANAGING OPERATIONS FOR COMPETITIVE ADVANTAGE (PREREQ: GSB 420) At its core, business is about providing a superior product or service. This course analyzes the processes used to deliver products in the
World class firms have demonstrated that effective operations management can be a potent competitive weapon. This course addresses the key operations and logistical issues in service and manufacturing operations, which have strategic as well as tactical implications. Both quantitative and qualitative techniques and principles used by leading organizations are examined. Examples of “world class” operations are drawn from both the manufacturing and service sectors. PREREQUISITE(S): GSB 420

MGT 506
DECISION MAKING FOR MANAGERS: (PREREQUISITE MGT 502) This course addresses Simon's three-phase problem-solving model. Students learn how to improve problem diagnosis through statistical and logical tools, creatively generate alternative solutions, and make effective decisions through decision analysis and by building decision support models. Students will use a various spreadsheet applications to aid in the decision-making process. PREREQUISITE: MGT 502.

MGT 508
QUALITY MANAGEMENT SYSTEMS (PREREQ: MGT 502) Organizations seeking to improve their customer satisfaction, operating efficiency, and profitability frequently turn to quality management initiatives--including; Total Quality Management, Business Process Reengineering, Six Sigma. and ISO Quality Standards. The lessons learned through the success and failure of these programs provide valuable insights to managers seeking to achieve performance excellence within their own organizations. The course relies on the Malcolm Baldrige National Quality Award framework and case analysis to explore successful quality management initiatives. Prerequisite: MGT 502.

MGT 518

MGT 521
MANAGEMENT OF FAST GROWING FIRMS(PREREQ(S):ACC 500 & MGT 500) Alternative growth strategies for companies in the second stage of their life cycle are examined. After initial start-up, a unique set of problems and constraints confront the firm limiting its growth. Expansion of product line and services, new market development, redefinition of organizations, financial resource allocation, second stage financing using a case study approach, and going public are some issues that are covered. Proposed revisions are critically evaluated. PREREQUISITE(S): ACC 500 & MGT 500.

MGT 523
RECRUITMENT AND SELECTION (PREREQ: MGT 555) An advanced study of current recruitment and selection practices of organizations both public and private. Emphasis is placed on common tests that are used and an examination of these tests for applicability in specific situations. Legislation related to EEO an Affirmative Action programs are discussed. PREREQUISITE(S): MGT 555.

MGT 524
LEADERSHIP IN SPORTS Leadership in sports is the combination of planning, organizing, directing, controlling, and leading for sports organizations. Sports-related businesses include professional and collegiate athletics, fitness and racquet clubs, hotels and resorts, and sports-related consumer businesses (Nike, Gatorade, etc). This is an introductory course that encompasses the basics of successfully managing sports enterprises.

MGT 525
TRAINING DEVELOPMENT (PREREQ: MGT 555) An intensive study of personnel training and development in contemporary organizations. Emphasis is placed upon the identification of training needs, program design, choice of training methods, and evaluation of results. Classroom activities focus on application with students designing and presenting training seminars. PREREQUISITE(S): MGT 555.

MGT 526
COMPENSATION (PREREQ: MGT 555) An in-depth treatment of pay and benefit practices including job evaluation, salary structures, salary surveys, performance-based pay, including special topics such as executive compensation, sales compensation, and employee benefits. The objective of this class is to help line managers and human resource department staff members understand how to link reward programs to business strategy, how to use such programs to motivate and retain employees, and how to design and evaluate such programs. Theory and practice are combined in practical projects. PREREQUISITE: MGT 555.

MGT 529
LIFE AND CAREER PLANNING This course is designed to develop your life and career skills to meet the challenges associated with changing careers and changing jobs. Topics include: enhancing your self-esteem,
balancing life and career, tapping interests, aptitudes and values, self-marketing, resumes and interviews and strategic career planning to achieve life and career goals. This is a Human Resource Management and a Leadership and Change Management course.

MGT 530
LEADERSHIP IN ORGANIZATIONS This course utilizes a theoretical framework to provide a foundation of understanding of effective leadership in organizations. The opportunity for self-assessment of leadership strengths and management styles, as well as reflection and action planning for individual leadership development, is also provided. To enhance self-assessment, there are questionnaires, as well as classroom exercises, experienced in a supportive group environment. Examples of effective organizational leadership are also critically examined in case studies. Current leadership topics to be covered include values and vision, strategy, organizational culture, management style, leading groups and teams, and coaching, thus providing analysis from both the macro and micro organizational levels.

MGT 535
CHANGE MANAGEMENT (PREREQ: MGT 500) This course is targeted towards external and internal consultants, as well as managers and other change agents within organizations. Change Management fosters improved competency in the skills necessary during all phases of the change process - from diagnosis, to interventions, through evaluation. Organizational change issues are critically examined, and case studies, exercises, and assessments are utilized, to better understand change from organizational, group, and individual levels. Change models serve as frameworks that emphasize the importance of interactive consultative processes. A major organizational change project is required of all students. PREREQUISITE: MGT 500.

MGT 545
MANAGING SERVICE OPERATIONS (PREREQ: MGT 502) This course provides an examination of operating activities in service industries. Emphasis is on the principles of design, operation and control of service delivery systems. Lectures, cases and assignments focus on such topics as delivery system design, client interfaces, operations control, capacity management and quality control. PREREQUISITE(S): MGT 502.

MGT 555
STRATEGIC MANAGEMENT OF HUMAN RESOURCES (PREREQ: MGT 500) This course will help students understand how the management of people is influenced by the social, ethical and legal environment; by diversity in the work place; by the organizational culture; and by the business strategy. Students will learn how to effectively perform the following HR activities: selecting employees, developing people, evaluations and rewarding performance, and motivating employees. PREREQUISITE(S): MGT 500.

MGT 557
INTERNATIONAL MANAGEMENT The object of this course is to develop clear awareness of the international business operations, practices and environment. It provides the concepts, methods and tools necessary to face the global challenges in international management. The objective is met through lectures, classroom discussions, library assignments and research work. Students will learn the effective use of the international business references. By the end of the course, they are expected to have developed a high level of competency in acquiring, understanding, analyzing and synthesizing international management information from international business directories, databases and CD-ROMs.

MGT 559
HEALTH SECTOR MANAGEMENT This graduate level, hands-on course will discuss the evolution and current trends in the delivery and financing of health goods and services in the biotechnology, pharmaceutical, medical device, and health services delivery industries within the health sector. This course will equip students with the ability to use managerial epidemiology as a decision making tool in marketing and operations in the health sector. Ultimately, this course will enable students to apply Michael Porter's Five Forces Model to analyze and manage the various industries within the health sector. This course will use lectures, role plays, simulations, and the case method.

MGT 562
RESOLVING CONFLICT IN ORGANIZATIONS (PREREQ(S): MGT 500 and MGT 555) Comprehensive study and skill building exercises devoted to the development of skills necessary for managers to resolve and manage conflict within their organizations. For illustrative purposes, discussions and exercises will be in the context of employment disputes, discrimination disputes, and/or labor-management disputes. However, the skills attained in the course may be successfully used to resolve any type of conflict. Included will be a discussion of various dispute resolution methodologies including the mediation, arbitration, and investigation of asserted conflicts, real or perceived, as well as the design of dispute resolution processes and related issues of organizational fairness, justice, and ethics. PREREQUISITE(S): MGT 500 and MGT 555.
MGT 563
NEGOATION SKILLS (PREREQ: MGT 555) The nontraditional course relies predominantly upon experiential learning to enhance students' ability to get what they want through negotiation. It is a skill-building course designed to help each individual student become persuasive, both personally and professionally. The course makes use of lecture, class discussion, various stress negotiation assignments and a major bargaining exercise. It builds upon failures as well as successes, enabling students to identify their own individual negotiations style. Students completing the course will have developed the ability to compete successfully in future negotiation situations at all levels and to refine the tools and techniques they learned during the quarter. PREREQUISITE(S): MGT 555.

MGT 565
EMPLOYMENT LAW (PREREQUISITE(S): MGT 555) The purpose of the course is to identify how a supervisor or firm owner is legally regulated in connection with the management of her or his workforce, as well as the management implications of the regulation. In this way, the student will learn of the legal ramifications of human resource management decisions. Topics which will be addressed include discrimination on the basis of age, gender, race, religion, disability and national origin, sexual harassment, drug and other forms of testing, regulation of hiring and firing decisions, privacy rights and regulation of off-work conduct. Class activities may also focus on understanding bias and prejudice in managerial decision-making. PREREQUISITE(S): MGT 555

MGT 570
ENTREPRENEURSHIP/NEW VENTURE MANAGEMENT (PREREQ: ACC 500, MGT 500, MGT 502) The focus of the course is on new venture initiation and the preparation of a business plan that can be used to generate financing and to begin operations in a new business enterprise. It examines the critical factors involved in the conception, initiation and development of new business ventures. Topics covered include the identification of characteristics of prospective entrepreneurs, identifying innovations, market potential analysis for new products or services, acquiring seed capital, obtaining venture capital for growth or purchase of an existing business and organization and operation of the new business. Each student is required to develop a business plan which will be presented to the class. Students wishing to start, develop, acquire, sell or merge a business are encouraged to do so. PREREQUISITE(S): ACC 500, MGT 500, MGT 502.

MGT 571
FINANCING NEW VENTURES (PREREQUISITE(S): FIN 555) Financing New Ventures Prerequisite(s): FIN 555 This course will focus on identifying, examining and evaluating various sources of original and growth capital. Emphasis will be on legal, financial and tax issues related to capital formation as well as specific problems experienced by the small-to-medium-sized firms undergoing rapid growth. Topics discussed will include financing startups, financial planning and strategy, going public, selling out and bankruptcy. A formal proposal for capital acquisition developed through field research will be required of each student.

MGT 572
CORPORATE VENTURE MANAGEMENT (PREREQ: ACC 500, MGT 500, MGT 502) The focus of this course is on how corporations develop new ventures. It critically examines the circumstances that make it possible for employees to contribute their venture ideas to the corporate objectives and describes techniques that stimulate such ideas. Although the primary focus will be on the employee and how the individual can be entrepreneurial within a corporate structure, the course also examines how the corporation can systematically encourage innovation. Case studies of corporate ventures projects will be reviewed. PREREQUISITE(S): ACC 500, MGT 500, MGT 502.

MGT 573
CREATIVITY IN BUSINESS This course explores the nature and role of creativity in organizations. Theories and modes of creative thinking, and the link between creativity and innovation are presented. The course format is largely experiential, with emphasis on group and individual exercises, techniques, simulations and cases, through which students will investigate the creative process in a variety of organizational settings. The role of managers and team members in nurturing and sustaining a creative enterprise is discussed. The course is designed to open students to the creativity within themselves and organizations, and to the tools with which creativity can be managed to promote innovation and enhance organizational effectiveness as well as satisfaction and quality of work life.

MGT 590
MANAGEMENT OF INNOVATION AND TECHNOLOGICAL CHANGE (PREREQUISITE: MGT 502.) The ability to manage technological innovation has become an increasingly essential requirement for business people regardless of functional specialty. The objective of this course is to explore ways to create environments that
are conducive to technological innovation. Throughout the course students examine practices, models, and approaches that established, as well as new, organizations employ to promote innovative practice, technological change, and new technologies. The following topics will be covered: the innovation process, managing technical people, the impact of organizational design on innovation, knowledge management, cross function teams and exploiting new technologies. Students will research new technologies and discuss potential business applications and issues associated with those technologies. PREREQUISITE: MGT 502.

MGT 598
PROJECT MANAGEMENT (PREREQUISITE: MGT 502) SEMINAR IN OPERATIONS MANAGEMENT This course covers management techniques that are applicable to a wide variety of project types including new product development, business start-ups, marketing campaigns, facility relocations, construction, research programs, and special events. Emphasis is on scheduling, budgeting, and control including the selection and application of project management software. Other topics include project organization, qualifications and roles of the project manager, project leadership, team building, and the management of conflict and stress in projects. PREREQUISITE(S): MGT 502.

MGT 793
MANAGEMENT INTERNSHIP (PREREQ: PERMISSION) This is a unique opportunity in which interns gain and develop managerial skills, providing a link to mastering the dynamics of running a business. This hands-on experience allows the intern to apply his or her skill/wisdom to the work place and provides invaluable knowledge that is crucial for future advancement. While building an impressive resume for further job opportunities, the intern will be immersed in a stimulating environment with a pool of established resources. In addition, networking opportunities avail themselves to build future relationships. PREREQUISITE(S): Permission.

MGT 798
SPECIAL TOPICS (PREREQ(S): AS INDICATED IN SCHEDULE) Content and format of this course are variable. An in-depth study of current issues in management. PREREQUISITE(S): As indicated in schedule.

MGT 799
INDEPENDENT STUDY (PREREQ: WRITTEN PERMISSION) Available to graduate students of demonstrated capability for intensive independent work in management. PREREQUISITE(S): Written permission.

Management Information Systems

MIS 555
MANAGEMENT OF INFORMATION TECHNOLOGY (PREREQ: ACC 500) This course focuses on the management and use of information technology (IT). As the use of IT in society grows, particularly in business, our graduates are likely to become responsible for managing some technology resources and to participate in IT planning and development projects as founders, sponsors, team members, managers of development or end-user developers. Students should become effective users and evaluators of information, IT, and information services. The course explores a number of IT-related topics such as the strategic role of IT, IT planning and architecture, building the telecommunication highway system, management issues in systems development, the expanding universe of computing, group support systems, intelligent systems, electronic document management, and managing the human side of systems. PREREQUISITE: ACC 500

MIS 673
DATA MANAGEMENT (PREREQ: MIS 555) Data has been recognized as an important corporate resource and databases have evolved into a central component of business information systems. Topics include semantic data modeling using entity-relationship and object models; data structuring with normalization; relational database design, implementation and manipulation with SQL (Structured query language); and some evolving technologies such as data warehousing, on-line analytical processing, object-oriented databases, and data
technologies such as data warehousing, on-line analytical processing, object-oriented databases, and data visualization. Hands-on exercises include the use of a relational database system with SQL and data modeling CASE (computer-aided software engineering) tools. PREREQUISITE (S): MIS 555.

MIS 674
SYSTEMS ANALYSIS AND DESIGN (PREREQ: MIS 555) The focus of this course is on the early phases of information systems development starting with requirements analysis and specification. Alternative systems development methodologies including conventional structured approaches are reviewed but the emphasis is on distributed processing together with object-oriented analysis and design, rapid application development and prototyping, the use of CASE (computer-aided software engineering) tools and GUI (graphical user interface) design with event-driven computing. PREREQUISITE (S): MIS 555.

MIS 676
SYSTEMS PLANNING AND IMPLEMENTATION (PREREQ: MIS 555) This course stimulates an information systems project. It summarizes and extends the concepts of process-, data-, and object-oriented methodologies, related CASE tools and integrates the techniques presented in the prerequisite courses. It also covers additional topics of interest to systems developers and managers. A major component of the course involves field projects in which students play the role of MIS consultants. This includes discussion of the consultancy process, the interview process, precise problem formulation, team building, oral presentations, report writing and techniques for researching hardware and software. PREREQUISITE (S): MIS 555.

MIS 677
INFORMATION SYSTEMS PROJECT MANAGEMENT (PREREQ: MIS 555 OR EQUIVALENT) Information systems projects are often late, over-budget, technically inoperable, operationally infeasible and in some cases never finished. One of the roots of this problem has been the lack of experienced management. What is needed are appropriate managerial procedures of estimating, planning, scheduling and control. This course will define the essential components of good management of any kind of project, but the emphasis will be on management of information systems and technology projects. PREREQUISITE (S): MIS 555.

MIS 680
ELECTRONIC BUSINESS (PREREQ: MIS 555 OR EQUIVALENT) Although this course provides an understanding of evolving Internet technologies, it primarily explores the business implications of these fascinating developments. It explores the tools, skills, business and social implications of emerging electronic business. In addition to acquiring basic skills for identifying electronic business opportunities and creating a presence in the online marketplace, the student reexamines fundamental processes of business as they are performed in cyberspace in contrast to the marketplace. This helps the students evolve a perspective about the business in the next century and helps them understand changes as the cyberspace grows increasingly important in the global economy. PREREQUISITE(S): MIS 555 or equivalent.

MIS 681
E-BUSINESS STRATEGIES (PREREQ: MIS 680) This course is focused on business strategy implications of the digital economy. It is primarily a case-based course, where students learn to develop and use the managerial and strategic reasoning skills needed to guide their organizations in the turbulent digital economy. This is a hands-on class only to the extent that students use the existing web infrastructure to facilitate their interactions with other students, such as team members and the instructor. PREREQUISITE: MIS 680.

MIS 682
E-BUSINESS INTERFACE DESIGN (PREREQ: MIS 555) This course focuses on the three discrete segments of E-Business interfaces. (1) a study of E-Business interfaces- their layout, design, navigation components for their business purpose and viability. (2) a technology transfer of the tools of the trade used to construct these interfaces. (3) development of effective web interfaces using these tools. This course is technical and creative, but it also engages in a study of business purpose and viability of interface design. PREREQUISITE(S): MIS 555.

MIS 683
INFORMATION TECHNOLOGY STRATEGY AND ARCHITECTURE (PREREQ(S): MIS 674 OR EQUIVALENT) This course addresses the fundamental aspects of developing an information technology (IT) strategic plan and the enabling IT architecture to support enterprise business processes. Students explore the importance of strategic alignment of business and technology as well as the contribution IT has on the value chain. Students will be able to more effectively use and manage IT from an enterprise view and from an architectural perspective. The course includes lectures, practical case discussions and current events in the industry. It also explores how IT can be leveraged to improve shareholder value, customer satisfaction and the competitive position of the firm. This is intended to be an advanced level managerial course for practitioners who have ambitions to be a senior IT executive, management consultant or a technical analyst. PREREQUISITE(S): MIS
MIS 686
TELECOMMUNICATIONS MANAGEMENT  (PREREQ: MIS 555) This is a nontechnical introductory course intended to familiarize the students with the field of telecommunications. It covers the basic technologies employed in voice and data communication systems and their business applications. The structure, regulation and history of the telecommunications industry will be discussed as well. This course is useful to students without previous training in telecommunications. In addition, professionals who already have a specific knowledge in a particular aspect of telecommunications should find this course valuable in broadening their knowledge of the field. PREREQUISITE (S): MIS 555.

MIS 689
KNOWLEDGE MANAGEMENT  (PREREQ: MIS 555) Leading organizations are moving to create new knowledge and systematically take advantage of this wealth of accumulated knowledge. This course explores the new strategies, processes and technologies supporting knowledge from a management perspective. Topics include the development and creation of new knowledge, knowledge support systems, the replacement of human decision-making by technology, and the maintenance and dissemination of knowledge. The course includes reading, lecturettes, case discussions and a project. PREREQUISITE (S): MIS 555.

MIS 798
SPECIAL TOPICS Content and format of this course are variable. It involves an in-depth study of current issues in information systems and technology. Subject matter constantly changes and will be indicated in class schedule.

MIS 799
INDEPENDENT STUDY  (PREREQ: MIS 555 AND WRITTEN PERMISSION) Available for graduate students of demonstrated capability for intensive independent work in information systems. PREREQUISITE(S): MIS 555 and written permission.

Marketing

MKT 525
MARKETING RESEARCH I  (PREREQ: GRADUATE STANDING) (Required for Marketing concentration) This course provides an overview of the nature of marketing research and its role in decision-making with the organization. Specifically the students will concentrate their efforts on understanding the process of research design and implementation. PREREQUISITE(S): GRADUATE STANDING

MKT 526
MARKETING RESEARCH II  (PREREQ: MKT 525) Those students interested in more extensive marketing research experience should enroll in this course. The student will begin with a data set and work closely with the instructor in performing multivariate data analysis and developing a format for presentation of results. PREREQUISITE(S): MKT 525.

MKT 528
QUALITATIVE RESEARCH METHODS  (PREREQ: MKT 525 & MKT 545) Qualitative Research Methods will explore non-survey and non-experimental techniques useful in researching issues with marketing implications. Lectures and reading assignments will be punctuated with experimental exercises, videotapes, and student presentations. Topics will include question design, content analysis, and unstructured or simple observation. Projective techniques and other indirect methods, in-depth/in-person interviews, and focus group sessions. Offered variably. PREREQUISITE(S): MKT 525 and MKT 545.

MKT 529
PRECISION MARKETING (PREREQ: MKT 555) Geodemographic systems such as Claritas and Spectra combine publicly available demographic data with commercial databases and mapping software. These tools, which are used by most Fortune 1000 consumer firms, enable marketers to pinpoint target markets and create effective strategies for a variety of marketing activities. Course topics include the strengths and weaknesses of different approaches, identification of a geodemographic target market, and the use of geodemographic data for advertising and promotion, retail site selection, cross-selling opportunities, and other strategic decisions. PREREQUISITE(S): MKT 555.

MKT 530
CUSTOMER RELATIONSHIP MANAGEMENT : PREREQUISITE(S) GRADUATE STANDING Students are introduced to a new strategy methodology, CRM, which is currently being adopted by many organizations in efforts to enhance their competitive advantage. Focus is placed on understanding how an enhanced customer relationship environment can differentiate an organization in a highly competitive marketplace. Both the business and consumer markets are examined in multiple vertical markets. New technology demonstrations and their impact will be discussed. Guest speakers provide current best-practice methods. Topics included: Case analysis and projects make up the course assignments. PREREQUISITE(S) GRADUATE STANDING

MKT 534
ANALYTICAL TOOLS FOR MARKETERS (PREREQ: MKT 555) This course seeks to provide an in-depth understanding of both qualitative and quantitative analytical tools that are of critical importance to marketers. These tools will help marketers avoid head-to-head competition, understand customer perceptions, understand customer preferences, develop accurate sales forecasts, and financially value marketing strategies. The course is designed to be "hands-on" in that students will develop understanding mainly through conducting application projects and presenting results. The course is also designed to be immediately applicable to marketers' current and future jobs. PREREQUISITE(S): MKT 555.

MKT 535
MARKETING STRATEGIES AND PLANNING (PREREQ: MKT 555) The basic elements of planning including the identification of the company's basic purpose and mission and their translation into specific objectives. Strategies to accomplish objectives are fused from marketing, financial, and manufacturing elements but emphasizing marketing elements. This course focuses on the contribution of marketing to the establishment of company policies, objectives, and marketing planning. PREREQUISITE(S): MKT 555.

MKT 537
NEW PRODUCT MANAGEMENT (PREREQ: MKT 525) The course has four objectives: first, to familiarize participants with how firms manage the conceptualization, development and launch of new products and services; second, to develop a systematic process for new product development that matches the existing business context; third, to give participants knowledge of some useful and immediately applicable tools that will enable them to participate and lead a team that effectively translates a firm's strategy and customer needs into successful products and services; and finally, help participants understand the impact of company dynamics in affecting the new product development process. PREREQUISITE(S): MKT 525.

MKT 540
Strategic Marketing: Business Models In today's hyper-competitive business environment, firms find it increasingly difficult to generate sustainable revenue growth. This course uses an organic-growth, marketing-based, customer-driven approach for developing sustainable year-on-year revenue growth. Linkages are created between existing benefits-based customer segmentation strategies, changing customer needs, the choice of a firm's or a business unit's product/service-line positioning strategy, its chosen business model, and finally its performance. Topics covered include: ? Outcomes-based segmentation ? Price-performance curves ? Market-leader positioning approaches ? Business model visualization and representation ? Dynamic positioning, product-line and business unit adaptation ? Value migration and threats to sustainability By the end of the course, students will know how to detect signals of change in customer needs and adapt their business models resulting in sustainability. This is a case-based course with a project deliverable due at the end of the course.

MKT 541
BRAND MANAGEMENT Brand management is an important component of both consumer and business marketing. The course addresses important branding decisions faced by an organization, particularly the role of brands in strategy. Learning objectives are (1) to increase understanding of the important issues in planning and evaluating brand strategies; (2) to provide the appropriate theories, models, and other tools to make better branding decisions; (3) to understand how marketing mix variables can affect brand equity over time; (4) to understand how to build and maintain brand equity; (5) to understand how to adapt brand strategies and tactics to optimize marketplace success.
MKT 545
CONSUMER BEHAVIOR (PREREQ: MKT 555) (Required for Marketing concentration) A review of the various theories, models, and techniques that attempt to explain consumer behavior. The course consists of lecture-discussions of behavioral theories, the empirical findings of contemporary research, and case studies designed to illustrate the salient issues involved in developing consumer-oriented marketing strategies. PREREQUISITE(S): MKT 555.

MKT 550
MARKETING TO BUSINESS (PREREQ: MKT 555) The marketing of business goods and services to other businesses (B:B) is more significant in our economy than consumer marketing and is the key to the continued success and productivity of the U.S. economy. In this course, the principles and practices of interindustry marketing will be explored by case analysis. The factors which must be considered before establishing marketing programs manufacturers, service industries and exporters will be examined. Examples will be drawn from varied industries, including equipment, electronics, computer systems, health care and others. New product introduction, distribution, and other marketing strategies will be emphasized. PREREQUISITE(S): MKT 555.

MKT 555
DECISIONS IN MARKETING MANAGEMENT (PREREQ: GRADUATE STANDING) Students are provided with an overview of the marketing process for consumer-oriented firms. Focus is placed on decision-making that aligns a firm's market offerings with the wants and needs of targeted segments of customers within a continuously changing environment. Written cases/projects are part of the course assignment. PREREQUISITE: Graduate Standing.

MKT 557
INTERNATIONAL MARKETING (PREREQUISITE(S): MKT 555 or equivalent) The differences between markets and distribution systems in various countries are explored. By emphasizing the social and economic factors causing these differences a sound understanding of and empathy with different international marketing problems are developed. Analyses are made of the organization of trade channels in various cultures, of typical government policies towards international trade in countries at different stages of development, and of international marketing research, advertising, and exporting. Offered Variably. PREREQUISITE(S): MKT 555 or equivalent.

MKT 575
ADVERTISING AND SALES PROMOTION MANAGEMENT (PREREQ(S): MKT 545 & MKT 555) A study of the theories and techniques applicable to the development of the promotional mix. Class consists of analysis and development of objectives, budgets, message design and media selection, and measuring the effectiveness of these for mass design and direct promotional vehicles. PREREQUISITE(S): MKT 545 & MKT 555.

MKT 576
EFFECTIVE BUSINESS COMMUNICATION This course is designed to expand the participant's communication skills through application of the principles of communication science and the psychology of persuasion in a contemporary business setting. Personal ethics and credibility are explored as important components of effective communication, both as individual's and as team members. Students are shown how to develop successful communication and message packaging strategies useful in a variety of communication venues including memos, meetings, briefings, interviews and individual and team presentations. Oral presentations and written communication techniques are explored including use of visuals, computer graphics, and layout techniques. The mechanisms of Speech Apprehension (stage fright) are presented as well as techniques for management and reduction of this common, debilitating phenomenon. Personal ethics and credibility are explored as important components of effective communication.

MKT 590
MARKETING OF SERVICES (PREREQUISITE(S): MKT 555) This course examines service organizations' distinctive approach to marketing strategy development and execution. Differences and similarities between the marketing of services and that of manufactured goods will be discussed. Other topics include measurement of quality and customer satisfaction, customer behavior and expectations, roles of service providers and customers, service competitive advantages, relationship management, overlap of service marketing with other organizational disciplines (e.g. H.R., operations, finance), organization design and value-chain impacts, outsourcing challenges and opportunities, global issues, macro environmental impacts, Business to Business and Business to Consumer examples and strategies in multiple vertical markets (e.g. financial services, technology, retail catalog, manufacturing, health care, hospitality and entertainment, automotive, government). Student groups will maintain service encounter journals which will be used as input to the
group's analysis paper assignment. Two abbreviated exams will measure the student's grasp of service marketing concepts. Group case analysis work will reinforce the course concepts. PREREQUISITE(S): MKT 555

MKT 595
INTERNET MARKETING (PREREQ: MKT 555) Explores the emerging business models, rules, tactics, and strategies associated with this medium. Integration with other channels and marketing operations is stressed. Classes are discussion-based, drawing on current applied readings and cases from a variety of industries in both the business-to-business and business-consumer markets. PREREQUISITE(S): MKT 555.

MKT 798
SPECIAL TOPICS (PREREQ: AS INDICATED IN SCHEDULE) Content and format of this course is variable. An in-depth study of current issues in marketing. PREREQUISITE(S): As indicated in schedule.

MKT 799 INDEPENDENT STUDY (PREREQ: WRITTEN PERMISSION) Available to graduate students of demonstrated capability for intensive independent work in marketing. PREREQUISITE(S): Written permission

Liberal Studies

Graduate Course Descriptions ▼ Liberal Studies

Liberal Studies

MLS 401
VISIONS OF THE SELF A study of the differing visions of the self as presented in significant documents from the history of ideas. Materials selected from classic texts of literature, philosophy, theology, psychology and social science.

MLS 402
PERCEPTIONS OF REALITY A survey, beginning with ancient Greece and ending with the modern world, of models of universal order as developed by natural scientists and literary and visual artists.

MLS 403
THE AMERICAN EXPERIENCE A chronological and thematic study of the location of self within American culture. Readings chosen to reflect both dominant and dissenting ideas at specific points of American history.

MLS 404
THE CITY A topical examination of the urban experience using the methods and sources of both historians and social scientists. Topics include survey of various images of the city, utopian and dystopian visions, and the uniqueness of the modern city.

MLS 405
REPRESENTATIONS OF THE BODY This course will examine how the human body, which seems to be a natural, universal fact, is also a deeply cultural symbolic construction whose analysis yields insights into structures of power and consciousness.

MLS 406
EXPLORING OTHER CULTURES Examination of the history, traditions, values and institutions that have shaped the lives of people in another culture. Analysis of the "terms of encounter," that is, the perspectives that students assume as they seek to encounter the "other" Variable to

MLS 407
SELF, CULTURE AND SOCIETY IN CONTEMPORARY JAPAN Interdisciplinary examination of the political, economic and social order of contemporary Japan. Relationship of individuals and groups to the social order, as they create the reality of diversity and possibilities for change.

MLS 410
COLLOQUIUM Colloquium

MLS 411
COLLOQUIUM Colloquium

MLS 412
COLLOQUIUM Colloquium

MLS 413
SURVIVAL IN A NUCLEAR AGE Survival In A Nuclear Age

MLS 414
PERSPECTIVES ON ADULTHOOD Perspectives On Adulthood

MLS 415
THE HUMAN SIDE OF HIGH TECH The Human Side Of High Tech

MLS 416
THE DIMENSIONS OF MODERN SCULPTURE The Dimensions Of Modern Sculpture

MLS 417
SHAKESPEARE: A MAN FOR MANY ARTS Shakespeare: A Man For Many Arts

MLS 418
COLLOQUIUM: RECONSTRUCTING PUBLIC LIFE Colloquium: Reconstructing Public Life

MLS 419
CHICAGO: TOWARDS THE 21ST CENTURY Chicago: Towards The 21St Century

MLS 420
COLLOQUIUM Colloquium

MLS 427
TOPICS IN COMMUNICATION AND CULTURE Variable topics relating to cross-cultural communication, culture and media, cultural difference in communication, and communication issues in multiculturalism. Consult current course schedule for topic.

MLS 428
TOPICS IN ORGANIZATIONAL COMMUNICATION Variable topics relating to communication issues in organizational settings, including power, institutional culture and change, training, and multicultural factors. Consult current course schedule for topic.

MLS 430
COLLOQUIUM Topics vary. See schedule for current offering.

MLS 440
FEMINIST THEORIES (CROSS-LISTED AS WMS 300, WMS 400) A discussion and assessment of the various theories concerning the place of women in society, including theories that have advocated a more positive role for and valuation of women than those of the dominant society. The course will take both an historical and a topical approach.

MLS 441
WOMEN ACROSS CULTURES (CROSS-LISTED AS WMS 390, WMS 490) A critical analysis of the roles of women in societies around the world, with special emphasis on economics, politics, and culture. Focus is on African, Asian and Latin American cultures and non-dominant groups within Western Societies. Topics vary each quarter.

MLS 442
ETHICS AND THE ECONOMY (CROSS-LISTED AS GSB 650 & PHL 650) This course will present the thinking of social scientists, philosophers and theologians on the impact of religious values on the origin and development of American capitalism, and their possible relevance to contemporary discussions of business ethics.
MLS 443
WORK, LEISURE AND THE QUALITY OF LIFE (CROSS-LISTED AS SOC 475) The course examines the nature and meaning of work and leisure in Western culture, and the relationship of work and leisure to contemporary issues associated with the concept "Quality of Life".

MLS 444
COMPUTERS, ETHICS AND SOCIETY (CROSS-LISTED REL 320) This course examines the impact of computerized technologies on society with particular attention paid to the ethical issues raised by these social effects.

MLS 445
GENDER AND COMMUNICATION (CROSS-LISTED AS CMN 523 & WMS 440) A review of the differences in communication patterns between women and men. Topics covered include language and language usage differences, interaction patterns, and perceptions of the sexes generated through language and communication.

MLS 446
POWER AND DIFFERENCE

MLS 447
GENDER AND SOCIETY Attention to the growing literature and empirical research on changing patterns in economic, psychological and social outcomes for women and men. Consideration of various theories of gender differentiation and inequality.

MLS 448
WORK AND LEISURE IN THE FUTURE (CROSS-LISTED AS SOC 476) The latter half of the 20th century has seen great change in the meaning, form and value assigned to work and leisure in society. Many of these changes have come to be characterized as inevitable consequences of life in post-industrial society. This course: 1) speaks to identify the factors that are shaping the future of work and leisure and 2) will explore futuristic scenarios that challenge the position of "work as a central-life meaning."

MLS 449
TOPICS IN NON-FICTION WRITING Topics addressed in different versions of the course may include writing for magazines, science writing, travel writing, writing in humanities and social science research, etc. Consult current course schedule for topics.

MLS 450
CHICAGO: ARCHITECTURE & URBAN DEVELOPMENT (CROSS-LISTED AS ART 339 & AMS 345) (Cross-listed as ART 339 & AMS 345) A study of urban architecture in Chicago from 1833 to 1984, including the role of planning, the purpose of open space, the place of tradition, the impact of modern design theories and evaluation of contemporary developments.

MLS 451
TOPICS IN AMERICAN POLITICS

MLS 452
GREAT IDEAS, BUSINESS AND SOCIETY (CROSS-LISTED AS GSB 540) A study using primary sources of the basic ideas, aspirations and values which humanity strives to attain and which constitute the basis of fundamental demands on the world of business and its managers, their policies and decisions.

MLS 453
POLITICS, MEDIA AND EVERYDAY LIFE (CROSS-LISTED AS PSC 321) An examination of various ways in which the mass media influence our perceptions of reality. Political, social and cultural implications of media processes are assessed.

MLS 454
PARABLE AND IMAGINATION (CROSS-LISTED AS ENG 475) (Cross-listed as ENG 475) The self's vision derives from narrative imagination. But parables are the genre that makes imagination self-conscious and narrative self-critical.

MLS 455
COMMUNITY AND THE CITY The course explores the possibilities for community life within urban settings. It emphasizes the development of network relations and cross-cutting ties.
THE USES OF AUTOBIOGRAPHY (CROSS-LISTED AS ENG 409) Study of selected autobiographical writings to serve as models for self-expression.

ENDINGS AND IMAGINATION: LIT OF ANCIENT/ MODERN APOCALYPSE Endings And Imagination: Lit Of Ancient/ Modern Apocalypse

ISLAM AND THE WEST IN THE MODERN WORLD An examination of the economic, cultural and political interactions of Europe and the Islamic World.

WRITING IN THE PROFESSIONS Improves writing skills useful in semi- and non-technical professions; emphasis on style, tone, awareness of purpose and audience; effective memo, proposal and report design.

THE DILEMMA OF THE MODERN AGE (CROSS-LISTED AS SOC 473) The crisis of the individual's place in society is exposed through social sciences, philosophy, literature, art and music. The distinctive features of and responses to modern culture-individualism, alienation and depersonalization-are illuminated through multiple perspectives.

MODERN POETRY (CROSS-LISTED AS ENG 466) Studies in 20th-century English and American poetry.

SEMINAR IN BUSINESS ETHICS (CROSS-LISTED AS PHL 640 & GSB 640) Seminar In Business Ethics (cross-Listed As Phl 640 & Gsb 640)

NATIONALISM AND INTERNATIONAL CONFLICT (CROSS-LISTED AS PSC 342 & INT 365) (Cross-listed as PSC 342 & INT 365) This course will explore the social origins and development of national identities. How these identities have been manipulated to serve specific competitive interests in the past two hundred years will also be discussed.

THE CULTURE OF AMERICAN CATHOLICS (CROSS-LISTED AS REL 384) This course will attempt a sociological and historical investigation of the culture of American Catholics, with special attention to the literary works of contemporary American Catholic writers including Flannery O'Connor, Mary Gordon and Eugene Kennedy.

MYTHOLOGY AND THE DRAMATIC ARTS (CROSS-LISTED AS ENG 385) Mythology And The Dramatic Arts (cross-Listed As Eng 385)

LAW, THE STATE, AND FREEDOM IN AMERICA (CROSS-LISTED AS HST 394) Law, The State, And Freedom In America (cross-Listed As Hst 394)

SELECTED TOPICS ON WOMEN IN LITERATURE Topics vary; see schedule for current offering.

SELECTED TOPICS: WOMEN, SELF AND SOCIETY Topics vary; see schedule for current offerings.

THE GREEK EXPERIENCE (CROSS-LISTED AS HST 405) (Cross-listed as HST 405) An overview of the ancient Greek world.

SCHOLARS & SAMURAI: TRADITIONAL CHINESE AND JAPANESE CIVILIZATIONS Scholars & Samurai: Traditional Chinese And Japanese Civilizations
MLS 471
THE ARTS OF JAPAN The visual arts of traditional Japanese culture.

MLS 472
ISLAMIC ART (CROSS-LISTED AS ART 341) The visual arts of traditional Islamic cultures.

MLS 473
TOPICS IN LITERATURE Topics addressed in different versions of the course may include various themes, movements and genres in British, American and World Literature. Consult current course schedule for topic.

MLS 474
WOMEN AND ART (CROSS-LISTED AS ART 381) Examines the work of the most significant women artists from the Renaissance to the present. It will also investigate how women have been represented in Western art by both male and female artists.

MLS 475
TOPICS IN CONTEMPORARY FILM (CROSS-LISTED AS CMN 348) An examination of recent films and their relation to broader tendencies in contemporary culture. Topics vary, see schedule for current offerings.

MLS 476
CHICAGO IN FICTION AND FILM This course examines novels and short stories written by Chicagoans during the 20th century. It also includes a few film adaptations of these works.

MLS 477
FEMINIST ETHICS (CROSS-LISTED AS WMS 310/410; REL 322) Critiques of mainstream empirical and philosophical works and of Carol Gilligan's work on ethics will include discussions on the women's voice in morality, the nature of theories by women vs. men, the formation of plural positions concerning care versus justice, and alternative ethical stances.

MLS 478
THE PSYCHOLOGY OF WOMEN (CROSS-LISTED AS PSY 561/WMS 470) A review of research and theory on women including sexist biases and methodology, feminist therapy, violence against women, and gender differences in the development of power and sexuality.

MLS 479
WRITING POETRY (PERMISSION REQUIRED) (CROSS-LISTED AS ENG 493) Writing Poetry (permission Required) (cross-Listed As Eng 493)

MLS 480
MAJOR AUTHORS An examination of major writers in the English and American literary traditions. Topics vary; see schedule for current offerings.

MLS 481
SPECIAL TOPICS IN ART HISTORY Explorations in the history of art from ancient Egyptians to contemporary art. Topics vary.

MLS 482
ECOLOGY, SPIRITUALITY AND ETHICS (CROSS-LISTED AS REL 320) This course explores the ecological crisis from a religious/ethical perspective, examining the dangers posed for humanity and the planet. It considers the new cosmology developing from science, especially physics, and its dialogue with philosophy, myth and religion.

MLS 483
CULTURAL PERSPECTIVES ON HEALTH AND DISEASE (CROSS-LISTED WITH REL 320) (Cross-listed with REL 320) A multidisciplinary examination of the cultural factor that help form notions of the well and sick states of the human body. Included will be such topics as the social/religious history of epidemics, healing in Western and non-Western medicine, etc. Sources will be drawn from the history of medicine, anthropological and sociological works, philosophy and literature.

MLS 484
ZEN MIND (CROSS-LISTED AS REL 342) This course examines the philosophy, art, literature and religious practice of Zen Buddhism. It explores Zen's influence in both Japan and America.
MLS 485
INEQUALITY IN AMERICA (CROSS-LISTED AS PSC 324) This course examines the nature and extent of inequality in American society and explores various psychological, political, social and economic theories which attempt to explain the existence of this phenomenon.

MLS 486
TOPICS IN POPULAR CULTURE Examines a specific dimension of popular culture using interdisciplinary theories and methods. Possible topics include Food in Film, The Ideology of Romance, or perhaps the popular culture of a decade like the 1950s or 1960s. Topics vary.

MLS 487
SPECIAL TOPICS IN HISTORY Topics vary.

MLS 488
TOPICS IN WORLD RELIGIONS Topics in World Religions

MLS 490
SPECIAL TOPICS AND CONTROVERSIES Occasional offerings of particular contemporary relevance by visiting professors. Topics vary.

MLS 497
INDEPENDENT STUDY (NON-THESIS) Students who wish to register for independent study in an area that does not lead directly into their Integrating Project/Thesis should register for this course. Students may also register for this course on a topic somewhat related to their Integrating Project/Thesis if they will subsequently take MLS498, in which the student directly prepares to write the Integrating Project/Thesis. The MALS Program requires that students taking independent studies follow a specified format of meeting frequency, activities, and scholarly production. This format is available on the program web site or from the MALS office. Registration is by permission of the instructor and the Director or Assistant Director of the Program.

MLS 498
INDEPENDENT STUDY (THESIS) Independent Study (thesis). Students take this course as a required independent study leading directly to writing the Integrating Project/Thesis. This course is normally required of all students who began the program in the academic year 2000-2001, unless it is waived by permission of the Director. The MALS Program requires that students taking this course follow a specified format of meeting frequency, that they produce a review of literature related to their integrating Project/Thesis, an annotated bibliography, and a sample introduction or first chapter which will serve as the required Proposal for the Integrating Project/Thesis. Registration is by permission of the instructor and the Director or Assistant Director of the Program.

MLS 499
INTEGRATING PROJECT/THESIS Students may register for this course after the integrating project proposal has been approved. This course carries four hours of credit.

MLS 500
INTEGRATING PROJECT/THESIS SEMINAR Students may register for this course after the integrating project proposal has been approved. This course carries four hours of credit.

MLS 502
CANDIDACY CONTINUATION Required of all students who are not registered for regular courses but who occasionally utilize University facilities during completion of course requirements and/or research. Non-credit. $40.00 per quarter.

Modern Languages
Modern Languages

MOL 449

MOL 454
THEORETICAL FOUNDATIONS/CURRENT RESEARCH SECOND/FOREIGN LANGUAGE ACQUISITION An overview of major theories and current issues in second/foreign language acquisition in both classroom and natural/non-instructed settings. Graduate standing required.

MOL 457
TEACHING CULTURE IN THE MODERN LANGUAGE CLASSROOM Pedagogical theory and practice in the integration of culture into the language classroom. Graduate standing required.

MOL 464
RUSSIAN SHORT STORY IN ENGLISH TRANSLATION II: SOVIET ERA This course presents some of the greatest Russian short stories (1880 - 1930) in English translation. Students will read short stories in English translation by four major Russian writers: Chekhov, Kuprin, Bunin and Bulgakov. Students will analyze and interpret short stories of the 1880-1930 period, both with respect to form and meaning, and discuss some critical works.

Public Services

Graduate Course Descriptions

MPS 490
WRITING SKILLS FOR PUBLIC SERVICE PROFESSIONALS This course focuses on developing writing skills?and therefore thinking skills?to meet or exceed MPS Program, professional, academic or management standards. Students receive intensive feedback and coaching on structure, organizing and style. The course is a blend of classroom and individual, online coaching sessions.

MPS 498
PUBLIC SERVICE IMMERSION This is a blended course-a mixture of learning methods including experiential, classroom and on-line (Blackboard) methods. Students are immersed in nonprofit or government organizations as volunteers for 200 hours with supervision and reflection exercises during the term. This course is required for students admitted into the Program without (relevant) work experience in public service organizations and students from foreign countries. It is recommended for students using the Public Service Program to change careers.

MPS 499
PRESENTATION SKILLS FOR PUBLIC SERVICE PROFESSIONALS This course introduces students to the tangible skills that take spoken delivery to the next level. These are the professional skills that convey intangible qualities that make communication interesting, convincing, credible, sincere and assertive. (Required of all MPS students taking MPS 500)

MPS 500
INTRODUCTION TO PUBLIC SERVICE MANAGEMENT Introduces students to organizational theories and practices useful to public service managers. Teaches how to use structural, human resource, political and symbolic perspectives to rethink public service organizations. Provides an introduction to managerial issues including workforce diversity, decision making and leadership; stresses critical thinking and writing skills.

MPS 501
CROSS-SECTOR ANALYSIS Covers the examination of the size, scope, capacity, and limitations of the
CROSS-SECTOR ANALYSIS Covers the examination of the size, scope, capacity, and limitations of the nonprofit, government, and business sectors, in the domestic and international context. Students will be introduced to research and become familiar with print and electronic resources and databases. They will learn to develop meaningful research questions, write literature reviews, and analyze the interrelationships between the three sectors.

MPS 502
ETHICS IN INTERNATIONAL ADMINISTRATION Examines ethical dimensions of issues faced by administrators in international public service organizations.

MPS 503
PUBLIC SERVICE ORGANIZATIONS IN THE THREE SECTORS (FORMERLY MPS 512) Examination of the size, scope, capacity, and limitations of the nonprofit, government and business sectors in their provision of human services. In addition, print, electronic, and database resources are examined as means of developing meaningful research questions about the interrelationships among the three sectors.

MPS 504
ETHICS IN ADMINISTRATION (FORMERLY MPS 594) Examines ethical dimensions of issues faced by administrators in public service organizations. Two credit hours.

MPS 508
WRITING IN THE PROFESSIONS (CROSS-LISTED AS ENG 494) Improves writing skills useful in semi- and nontechnical professions; emphasis on style, tone, awareness of purpose and audience. Cross-listed with ENG 494.

MPS 510
INTERNATIONAL DIMENSIONS OF PUBLIC SERVICE Seminar on the organization and delivery of public services outside the United States. Topics include a comparative analysis of the service sector in other nations, the role and impact of international service agencies, and international involvements of US. foundations and nonprofit agencies. Features case studies and guest speakers.

MPS 511
SUSTAINABLE DEVELOPMENT AND NON-GOVERNMENTAL ORGANIZATIONS This course examines available research on the results of aid programs to third world countries and the implications of these findings for models of development. It considers the role assumed by first world countries, international organizations such as the European Union or the International Monetary Fund, and non-profit organizations in third world development. Finally, it includes a critical assessment of the funding and policy decisions made by these actors and the effects they have on the global distribution of resources and the status of global equity and justice.

MPS 513
VOLUNTARISM IN AMERICAN SOCIETY (FORMERLY MPS 588) Analysis of volunteerism in American society, including its historical development, contemporary trends, social significance and organizational implications.

MPS 514
GOVERNMENT FINANCIAL ADMINISTRATION [PREREQ(S): MPS 500] This course introduces students to the basic tools used to evaluate the financial performance of governmental organizations. Students will learn about the basic financial reports generated by governments and will undertake a comprehensive analysis of financial performance of a government based upon its financial reports. PREREQUISITE: MPS 500

MPS 515
NONPROFIT FINANCIAL ADMINISTRATION This course introduces students to the basic tools of financial administration: budgeting, capital budgeting, cash flow analysis, variance analysis, and portfolio management. Students will also learn how to read and use financial statements to identify financial problems.

MPS 516
MANAGEMENT OF INFORMATION TECHNOLOGY This course focuses on the management and use of information technology (IT). As the use of IT in society grows, particularly in business, graduates are likely to manage technology resources and participate in IT planning and development projects as founders, sponsors, team members, managers of development, or end-user developers. Students should become effective users of information, IT, and information services. The course explores a number of IT-related topics, such as the strategic role of IT, IT planning and architecture, building the telecommunications highway system, management issues on system development, the expanding universe of computing, group support systems,
management issues on system development, the expanding universe of computing, group support systems, intelligent systems, electronic document management and managing the human side of systems.

MPS 518
PROPOSAL WRITING (FORMERLY MPS 586) (Formerly MPS 586) (2 quarter hours) Grant writing is a fundamental component of most nonprofits' fundraising strategy. This course provides practical guidance on how to plan and structure effective proposals for external funding, research funding courses, and follow-up with potential donors.

MPS 519
FUNDRAISING AND DEVELOPMENT FOR NON-PROFIT ORGANIZATIONS (Formerly MPS 589) (2 quarter hours) All nonprofits need resources to carry out their mission. This class explains how to construct an appropriate, manageable fundraising plan to assist an agency in achieving its goals. Techniques for implementing annual giving, capital campaigns and special appeals are reviewed, including consideration of who among nonprofit stakeholders should be involved in the process.

MPS 520
VALUES-CENTERED LEADERSHIP This interdisciplinary course explores service leadership through the lenses of Robert K. Greenleaf, The de Paul Leadership Project, Margaret J. Wheatley and other theorists and practitioners within the leadership field. The course expands our thinking on leadership to include modules dedicated to four topics: Service Leadership, Leadership and Diversity, International Leadership and Ethical Leadership. Students will assess their own leadership practices, develop a leadership action plan and participate in coaching, as coach and client. Student grading will be based on participation in self-reflection, course participation, project teams and a final project.

MPS 521
LEADERSHIP AND MANAGEMENT This course focuses on key factors which affect employee behavior and the nature and purposes of leader and managerial roles. In addition, it addresses recent research in leadership and management and the legal environment of personnel management. In depth analysis of psychological systems, interpersonal relations and the relationship of rewards to performance are addressed through case studies, role playing and readings.

MPS 522
FUNDAMENTALS OF HUMAN RESOURCE MANAGEMENT (PREREQUISITE: MPS 500) This course explores human resource issues facing employees with supervisory responsibilities in public service organizations, including those working in the volunteer, non-profit, religious, government, and education sectors. The course considers human resource planning, employee recruiting and selection, and the motivation and evaluation of staff personnel and managers both individually and in teams. Topics include recruiting and selecting employees and managers, fostering team development, managing employee stress, preventing workplace violence, and handling issues pertaining to termination, training, and development. The course also explores progressive discipline, improving performance management of employees and volunteers, and supervising "difficult" people. PREREQUISITE(S): MPS 500.

MPS 524
MARKETING FOR SERVICE ORGANIZATIONS Explores the objectives, strategies, techniques and constraints of government and non-profit services. 4 quarter hours.

MPS 525
WORKING WITH AN EXTERNAL BOARD This course examines the legal and philosophical reasons that nonprofit organizations are governed by an external board of directors. Membership, structure and process for this body are examined, as well as the relationship of employees to the individual board members and the policies established by this group.

MPS 526
LOCAL GOVERNMENT ADMINISTRATION Analyzes decision-making processes used in local units of government from the perspective of the chief executive officer (e.g., city manager, township supervisor, special district administrator and park superintendent); covers daily operational aspects of municipal administration including the impact of intergovernmental relations on local government, the role of the local government professional administrator in policy implementation and regional governance of the delivery of services that cross political boundaries. The interaction of the chief executive officer, elected board members and the community will be discussed.

MPS 527
ASSOCIATION MANAGEMENT (FORMERLY MPS 549) Examines membership associations as a special type of
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>MPS 528</td>
<td>FOUNDATION MANAGEMENT (FORMERLY MPS 548) Examines private and corporate foundations as a special type of public service organization. Emphasizes managing mission and resources for the public good.</td>
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<tr>
<td>MPS 529</td>
<td>STRATEGIC PLANNING Students will learn how to apply strategic planning concepts and tools to public and non-profit organizations to help achieve “corporate” goals and objectives in meeting service delivery missions. The course focuses on analyzing the dynamic interaction of trends, market forces, stakeholders, and core competencies in developing a vision with strategies to handle organizational alternative scenarios. Examples are taken from government, social service agencies, park districts, suburban municipalities, health care organizations, and metropolitan development groups.</td>
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<tr>
<td>MPS 530</td>
<td>ANALYSIS OF NONPROFIT ORGANIZATIONS [FORMERLY MPS 505] The purpose of this course is to explore both the science and art of nonprofit management. The primary goals are to become acquainted with the legal and economic constraints on nonprofits and to understand why some nonprofits succeed, while others fail.</td>
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<tr>
<td>MPS 531</td>
<td>FINANCING AND COSTING IN HEALTH CARE This course examines the major sources of financing as well as the major methods of measuring costs for inpatient, outpatient and long-term health care. It examines Medicare and Medicaid payment principles in detail and introduces cost accounting as applied to health care.</td>
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<tr>
<td>MPS 534</td>
<td>MEDICAL SOCIOLOGY (FORMERLY MPS 547) (CROSS-LISTED AS SOC 431) Overview of social systems of health care in the United States, including the health-seeking behavior of patients, relationships among health care providers and organizational settings in which services are delivered. Cross-listed with SOC 431.</td>
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<tr>
<td>MPS 535</td>
<td>ISSUES IN HEALTH CARE (Formerly MPS 560) Analyzes who promotes, provides, consumes, and pays for health care in the United States. Special attention is given to the relationships between governments, health care institutions, and community-based organizations.</td>
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<tr>
<td>MPS 537</td>
<td>HEALTH CARE DELIVERY SYSTEMS (CROSS-LISTED AS SOC 437) Overview of the structure of the U.S. health systems followed by a selective international comparison of other health delivery systems including their relationships to social policies and economic factors. 4 quarter hours. Cross-listed with SOC 437.</td>
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<tr>
<td>MPS 539</td>
<td>MACROECONOMICS Topics covered include: determinants of output, employment, price levels, income distribution, international trade, exchange rates, and how government policies affect these variables. Related topics receiving attention are: globalization, development and international philanthropy.</td>
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<tr>
<td>MPS 541</td>
<td>ECONOMIC FOUNDATIONS OF PUBLIC SERVICE (FORMERLY MPS 533) Introduces students to financial and microeconomic issues affecting the governmental and nonprofit sectors. Explores principles of public finance. Specific applications to local government and nonprofit organizations are considered.</td>
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<tr>
<td>MPS 542</td>
<td>POLICY DESIGN AND ANALYSIS (PREREQUISITE: MPS 503 and MPS 514, MPS 515 or MPS 541) Focuses on processes and techniques of analyzing and designing public policies. Students are introduced to an analytical way of thinking that includes: defining and modeling policy problems; designing policy alternatives; evaluating policy alternatives using ethical, legal, economic, organizational, and political criteria; and anticipating problems of policy implementation. PREREQUISITE(S): MPS 503 and 514, 515 or 541.</td>
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<tr>
<td>MPS 543</td>
<td>POLICY IMPLEMENTATION IN A BUREAUCRATIC AND POLITICAL CONTEXT [PREREQ(S): MPS 542] This course discusses reasons why well-intended government programs or policies so often go astray. It emphasizes how policies change when managers and analysts try to implement them in a bureaucratic or political environment. Prerequisite(s): MPS 542</td>
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</table>
MPS 544
LAW ENFORCEMENT POLICY ISSUES (CROSS-LISTED AS SOC 446) Theory, application, and impact of law enforcement policies on police, corrections and the courts. Cross-listed with SOC 446.

MPS 545
ALTERNATIVES TO TRADITIONAL PUBLIC POLICY ANALYSIS [PREREQ(S): MPS 542] Most public policy programs focus on the economic approach to policy analysis, but that approach has been receiving increasingly critical attention. The course will review the critiques of the economic approach, including ethical and civic issues. It also introduces students to alternative approaches, such as policy analysis as argumentation and critical policy analysis. Students will consider the effects that these different approaches may have on issues of social justice and equity as embodied in public policy decisions. Prerequisite(s): MPS 542

MPS 546
ADVOCACY AND PUBLIC POLICY Explores the roles of individuals and organizations in the public policy process, particularly as power arrangements facilitate or impede consensus building. Examines how legislation is written and how administrative rules are formed in government agencies. Special attention is paid to advocacy techniques such as lobbying, public education, and litigation. PREREQUISITE(S): MPS 542

MPS 550
APPLICATIONS IN PUBLIC POLICY ANALYSIS This course employs analytical techniques to explore policy problems faced by nonprofit organizations as well as federal, state and local units of government. It considers practical methods to use economic and public policy tools to address contemporary societal and governmental issues. Two credit hours PREREQUISITE(S): MPS 541 and MPS 542 or consent of instructor.

MPS 553
MANAGEMENT CONTROL IN NONPROFITS & GOVT (FORMERLY MPS 509) [PREREQ(S): MPS 514 or MPS 515 or MPS 541] This course combines the basic tools of finance covered in 514 and 515 with more advanced techniques and applies them through case studies to monitoring organizational performance and exerting control in both the short- and long-run. Prerequisite(s): MPS 514 or MPS 515 or MPS 541.

MPS 559
ENTREPRENEURSHIP AND NEW VENTURE MANAGEMENT (CRS # INACTIVE 9/1/1999) Entrepreneurship And New Venture Management (crs # Inactive 9/1/1999)

MPS 561
LAW AND NONPROFIT ORGANIZATIONS (FORMERLY MPS 532) Introduces laws and regulations governing nonprofit organizations, including procedures for incorporation, maintenance of tax-exempt status, and compliance with relevant labor laws. No legal background is assumed.

MPS 562
INTRODUCTION TO HEALTH LAW (FORMERLY MPS 570) Introduces students from nonlegal backgrounds to the legal system. Examines legal materials, including statutes, judicial opinion, and administrative regulations. Basic legal research and writing skills are taught.

MPS 563
LAW AND PUBLIC POLICY Examines how legislation and administrative procedures direct and constrain the exercise of administrative discretion by public officials, while ensuring accountability and fair treatment of the public. Discusses judicial review of administrative acts through the use of cases and other materials. Covers liability and authority of officials and how these affect citizens' rights and compliance with federal and state mandates.

MPS 569
ADVANCED SOCIAL PSYCHOLOGY (Cross-listed with Psychology 430) Advanced study of social psychological methodology, ethics and deception, attitudes, altruism, aggression and interpersonal processes and attraction.

MPS 570
RESEARCH METHODS IN PUBLIC SERVICE (FORMERLY MPS 582) (PRERQ: MPS 542) This course develops the skills necessary for conducting surveys, interviews, focus groups, and archival data analysis. Focus is placed on quasi-experimental designs. Sampling strategies and data preparation in SPSS format are also included as preparation for MPS 580 and the student's capstone project. PREREQUISITE: MPS 542

MPS 571
METROPOLITAN PLANNING Analyzes issues, decision-making processes, and resources that affect planning across a metropolitan area, including urban-suburban relations and the complexities of zoning and community development.

MPS 572
URBAN POVERTY SEMINAR (Formerly MPS 554) Readings, case studies, and student projects which explore the causes and conditions of urban poverty, together with a selective analysis of how public policy and service agencies address human need.

MPS 573
URBAN AND COMMUNITY ANALYSIS (CROSS-LISTED AS SOC 422) Discussion of urban issues, including social area analysis, neighborhood change, land use, and other selected topics. Cross-listed with SOC 422.

MPS 574
POLICIES AND URBAN DEVELOPMENT (CROSS-LISTED AS SOC 426) (Formerly MPS 545) Examines community organizations as problem-solving bodies that interact with government agencies in affecting urban development and the formation of urban public policy. Cross-listed as SOC 426.

MPS 580
QUANTITATIVE METHODS IN PUBLIC SERVICES (PREREQUISITE: MPS 570) Prepares students to use and produce quantitative analyses for policy studies and administrative decision making; focuses on descriptive and beginning-level inferential statistics; introduces students to statistical software. PREREQUISITE(S): MPS 570.

MPS 581
ADVANCED QUANTITATIVE METHODS (PREREQUISITE: INSTRUCTOR PERMISSION) Explores statistical tools for public service research, including the binomial distribution, multiple regression analysis, and non-parametric tests. Involves use of statistical software. PREREQUISITE(S): Permission of instructor

MPS 585
PRACTICUM/THESIS DESIGN (PREREQ(S): MPS STUDENTS OR CONSENT (2 credit hours) Prepares students to undertake a capstone project. Students will be introduced to a variety of data sets and invited to explore issues in which they are interested by reviewing the relevant literature and applying the analytical tools acquired during their coursework to these data. Students with a grade point average of 3.5 or higher will have the option of collecting their own data. Students electing this option are required to find a faculty advisor with the approval of the Director. PREREQUISITE(S): MPS students or department consent.

MPS 590
PUBLIC SERVICE ASSESSMENT AND EVALUATION [PREREQ: MPS 542 and MPS 570] Explains the purpose of needs assessments and the various methods used to assess levels of need as these are focused on shaping social policy or designing management systems. Areas covered include discrepancy, marketing, and social indicator analysis. PREREQUISITE(S): MPS 542 and MPS 570

MPS 591
APPLIED RESEARCH: PROGRAM EVALUATION [FORMERLY MPS 557] [PREREQ: MPS 542 AND MPS 570] Explores the various methods utilized in evaluating program results. Outcome assessment is discussed as this research strategy can be applied in assessing the impact of policy or management change. PREREQUISITE: MPS 542 and MPS 570.

MPS 592
APPLIED RESEARCH: ORGANIZATIONAL EFFECTIVENESS (PREREQ(S): MPS 542 AND MPS 570) Profiles the various methodologies, which are useful in evaluating the effectiveness of organizations in implementing policies and programs. The emphasis is on the development of process measures. PREREQUISITE(S): MPS 542 and MPS 570.

MPS 593
INTEGRATIVE SEMINAR [PREREQ (S): MPS 580 & MPS 590 OR 591 OR 592] This capstone course provides the opportunity for students to complete a demonstration project integrating applied research, theoretical frameworks, and professional practice. It allows students some flexibility, drawing from one of the applied research competencies in either a policy or management area of focus. PREREQUISITE(S): MPS 580 and 590 or 591 or 592

MPS 597
PUBLIC SERVICE FELLOWS SEMINAR Elective, 4-credit hour course available to students with MPS CGPA of 3.75 or greater. For MPS Fellows taking MPS 593, Integrated Seminar, or MPS 598, Thesis Research I, during the academic year, meets roughly every other week during winter and spring terms. Seminar includes distinguished academic and professional guest lectures and presentations of research by Fellows.

MPS 598
THESIS RESEARCH I (PREREQUISITES: MPS 585 AND CONSENT) Students carry out a theoretically-based research project designed in MPS 585. The final product of this course is a master's thesis. Binding fee PREREQUISITE(S): MPS 585 and consent of program director and instructor.

MPS 599
THESIS RESEARCH II (PREREQUISITE: MPS 598 AND CONSENT) Continuation course for students whose research projects extend significantly beyond what they can finish in MPS 598. PREREQUISITES: MPS 598 and consent of program director and instructor.

MPS 600
INDEPENDENT STUDY (PREREQUISITE: CONSENT OF DIRECTOR) Individually supervised learning experience, usually involving extensive library research and writing. Variable credit. PREREQUISITE(S): consent of program director and instructor.

MPS 601
INTERNSHIP (PREREQUISITE: CONSENT OF DIRECTOR) Variable credit. Supervised work experience during one or more quarters, usually involving application of administrative skills in an organizational setting new to the student. Variable credit. PREREQUISITE(S): consent of program director or internship supervisor.

MPS 602
CANDIDACY CONTINUATION (FEE: $40.00) Required of students who are not registered for regular courses during an academic quarter while completing course requirements or research. (0 credit) $40.00 per quarter.

MPS 604
SPECIAL TOPICS Topics vary each term. (May be taken more than once). Variable credit.

MPS 605
SEMINAR IN ADMINISTRATION In-depth examination of selected issues in public service administration. Topics vary each term. May be taken more than once.

MPS 606
SEMINAR IN HIGHER EDUCATION ADMINISTRATION In-depth examination of selected issues in higher education administration. Topics vary each term. May be taken more than once.

MPS 609
STRUCTURED PROFESSIONAL EXPERIENCE Work experience involving close interaction with a project supervisor in an international or cross-cultural setting focusing on a research-oriented or policy project under the supervision of an MPS faculty member. This interaction may be remotely facilitated through information technology such as online communications. Permission of the selected faculty member and Program Director is required.

MPS 610
INTERNATIONAL INTERNSHIP Supervised work experience under the guidance of a site supervisor in an international or cross-cultural organization during one or more terms and involving the application of administrative skills in an organization new to the student. Students may take this internship abroad or domestically. Permission of the Internship Coordinator and the Program Director is required.

MPS 611
MANAGEMENT OF INTERNATIONAL NGOs This course examines how management of international nongovernmental organizations (INGOs) differs from national and private management. INGOs are examined from a management perspective through specific case studies of organizations working for human rights, peace and disarmament, environmental justice, women's rights and international development. The course will examine internal and external organizational challenges faced by INGOs, including the maintenance of relationships with local/regional and international communities, governments, donors and other organizational actors.

MPS 612
INTERNATIONAL POLITICAL ECONOMY Provides students writing theses in the area of international political economy with opportunities to read contemporary works in the field, including growth theories, capital and labor flows, and transformation of regimes. Students develop analytical skills that can be applied to their projects.

MPS  613  
COMPARATIVE PUBLIC POLICY This course is an introduction to cross-national social policy research and to the fascinating and challenging issues of comparative research. Students will learn about comparative welfare state research and reflect on major theoretical and methodological aspects of social policy. North American public policy approaches will be compared with European, Asian and Latin American case studies on education, health care, housing, social security, labor market and other policy fields.

MPS  614  
GLOBALIZATION AND CIVIL SOCIETY ORGANIZATIONS This course introduces students to study the global trends in economics, politics, technology and culture and their effects on nongovernmental organizations. The growing number and activities of civil society organizations is analyzed in relation to the Internet, transnational networks and actions across borders. The role of the emerging global civil society along with the intensification of the local/global inter-organizational networks is considered both as result and reaction to globalization. The purpose of the course is to examine the challenges and opportunities that globalization offers for socially organized activities.

MPS  615  
INTERCULTURAL COMMUNICATION IN ORGANIZATIONS As many organizations are moving from being mono-cultural to multi-cultural, their managers and leaders need to develop effective cross-cultural competency. This course provides the necessary conceptual foundation and practical awareness to build and maintain positive inter-personal and inter-organizational communication across cultures. Students will focus on similarities and differences in communication behaviors including nonverbal communication, thinking modes, and values. The purpose of the course is to learn about the crucial role that intercultural communication has for building inclusive organizations and respectful human relations.

MPS  616  
INTERNATIONAL RELATIONS AND CONFLICT MANAGEMENT This course offers reflective practices and concrete directions for creating constructive solutions to interpersonal, inter-group, and international conflict. The course is a valuable opportunity to students interested to learn about interpersonal, intercultural and intergovernmental conflict prevention, management and resolution. The large field of international relations is explored through the role of governmental and non-governmental approaches to conflict management. The course focuses on theoretical foundations and practical implications connected to the use of diplomacy, negotiation, mediation, peacekeeping, peacemaking and peace-building to solve and prevent international conflicts. The purpose of the course is to analyze contextual and management variables correlated to the success or failure of conciliatory missions and preventive efforts. The escalation of global terrorism, the proliferation of weapons of mass-destruction, and various post-WWII conflicts will be used as case studies to explore the role of international organizations, multilateral coalitions, and international dialogue to deescalate violence, enhance security and promote peace. The course includes presentations from experts in the local and international arena of conflict management.

Masters in Social Work

Graduate Course Descriptions M Masters in Social Work

Masters in Social Work

MSW  401  
PROFESSIONAL WRITING AND DEVELOPMENT This course introduces students to the expectations and constraints of writing and other forms of communication within the profession of social work. This course also reviews the connections between communication and professional advancement and introduces students to preparing for professional presentations and conferences.
MSW 411
HUMAN BEHAVIOR AND THE SOCIAL ENVIRONMENT I This introductory course explores the impact of the social environment on individuals and families across the lifespan using empirical evidence and select theoretical models. This course addresses human plurality including race or ethnicity, gender, orientation, socio-economic status, disability status and citizenship status. This course is a pre-requisite for HBSE II.

MSW 412
HUMAN BEHAVIOR AND THE SOCIAL ENVIRONMENT II This is the second of a two-part introductory course that explores the impact of the social environment on groups, communities, and societies across the lifespan using empirical evidence and select theoretical models. This course addresses human plurality including race or ethnicity, gender, orientation, socio-economic status, disability status, and citizenship status. Successful completion of HBSE I is required for enrollment in this course.

MSW 421
INTRODUCTION TO SOCIAL WORK RESEARCH I This course presents the conceptual foundations and methods of research needed in order to assist students with integrating research knowledge and professional social work practice. This course focuses primarily on the quantitative method but the qualitative method is also covered. This course is the first part of a required two-course sequence for the MSW degree.

MSW 422
ADVANCED SOCIAL WORK RESEARCH II This course prepares students to develop and communicate empirically-based knowledge about effective social work interventions. Included in this course is a review of how to evaluate one's own professional practice and how to use research to improve service delivery. Successful completion of Introduction to Social Work Research I is required for enrollment in this course. This course is the second part of a required two-course sequence for the MSW degree.

MSW 431
SOCIAL WELFARE POLICY I This is the first of two required Social Welfare Policy Courses in the MSW Curriculum. This foundation course reviews the fundamentals of social welfare policy from the vantage point of professional social work. The course reviews social welfare history as well as provides a framework for analyzing social policy formulation among organizations and governments.

MSW 432
ADVANCED SOCIAL WELFARE POLICY II This is the second of two required Social Welfare Policy Courses in the MSW curriculum. This concentration course focuses on policy practice (including advocacy) skills in agencies and organizations. While including a review of analytical techniques, there is emphasis in this course on the human interactions which shape policy review and implementation. Successful completion of Social Welfare Policy I is required for enrollment in this course.

MSW 481
FOUNDATION PRACTICE I This foundation practice course is designed to equip students with the beginning skills and knowledge needed to professionally aid individuals and families. Using the bio-psycho-social model and the empowerment approach, students learn to identify, analyze, and implement selected interventions with clients. Concurrent enrollment with Foundation Field Education I is required for enrollment in this course.

MSW 482
FOUNDATION PRACTICE II This foundation practice course is designed to equip students with the beginning skills and knowledge needed to professionally aid families and groups. Using the bio-psycho-social model and the empowerment approach, students learn to identify, analyze, and implement selected interventions with clients. Concurrent enrollment with Foundation Field Education II is required for enrollment in this course.

MSW 483
FOUNDATION PRACTICE III This foundation practice course is designed to equip students with the beginning skills and knowledge needed to professionally aid organizations and communities. Using the bio-psycho-social model and the empowerment approach, students learn to identify, analyze, and implement selected interventions with clients. Concurrent enrollment with Foundation Field Education III is required for enrollment in this course.

MSW 491
FOUNDATION FIELD EDUCATION I This foundation field education course requires working in an approved field placement for 160 agency contact hours in the quarter. This course is designed to provide students with the opportunity to apply the beginning skills and knowledge needed to professionally aid individuals and families.
using the bio-psycho-social model and the empowerment approach. Concurrent enrollment with Foundation Practice I is required for enrollment in this course.

MSW 492
FOUNDATION FIELD EDUCATION II This foundation field education course requires working in an approved field placement for 190 agency contact hours in the quarter. This course is designed to provide students with the opportunity to apply the beginning skills and knowledge needed to professionally and families and groups using the bio-psycho-social model and the empowerment approach. Concurrent enrollment with Foundation Practice II is required for enrollment in this course.

MSW 493
FOUNDATION FIELD EDUCATION III This foundation field education course requires working in an approved field placement for 190 agency contact hours in the quarter. This course is designed to provide students with the opportunity to apply the beginning skills and knowledge needed to professionally aid families and groups using the bio-psycho-social model and the empowerment approach. Concurrent enrollment with Foundation Practice III is required for enrollment in this course.

MSW 501
PROGRAM EVALUATION This course offers a comprehensive overview of how program evaluation fits in contemporary social service environments. This course will cover three methods of program evaluation (needs assessments, outcome evaluations and process evaluations) and will give attention to the ethical considerations related to human diversity. Successful completion of Advanced Social Work research II is required for enrollment in this course.

MSW 521
FUND DEVELOPMENT AND MANAGEMENT I This course introduces students to creating, implementing and adjusting budgets within agencies and organizations. Attention is given to applying project management skills and using computer-driven technologies to put sound budgetary practices into operation. Successful completion of Program Evaluation is required for enrollment in this course.

MSW 522
FUND DEVELOPMENT AND MANAGEMENT II This course is the second of two required courses for the MSW program. This course emphasizes marketing and sustainability in community-serving agencies. Other topics covered in this course include collaboration, working with public and private funders and philanthropy. Successful completion of Fund Development and Management I is required for enrollment in this course.

MSW 581
COMMUNITY PRACTICE I Using the empowerment practice approach, this course focuses on equipping students with the advanced skills and knowledge needed to practice in a community-serving organization. This course will cover fundamentals of administration, including project management, and agency governance, as well as leadership and supervision within the context of working in communities. Concurrent enrollment in Advanced Field Education I. Successful completion of the entire Foundation Practice sequence (I-III) is required for enrollment in this course.

MSW 582
COMMUNITY PRACTICE II Using the empowerment practice approach, this course focuses on equipping students with the advanced skills and knowledge needed to practice in a community-serving organization. These skills include conducting needs analysis, designing programs, and writing proposals. Concurrent enrollment in Advanced Field Education II is required for enrollment in this course.

MSW 583
COMMUNITY PRACTICE III Using the empowerment practice approach, this course focuses on equipping students with the advanced skills and knowledge needed to practice in a community-serving organization. This course will cover personnel law (including hiring and firing), program collaboration and consolidation and other aspects of administration and management within the context of community-serving organizations. Concurrent enrollment in Advanced Field Education III is required for this course.

MSW 591
ADVANCED FIELD EDUCATION I This concentration field education course requires working in an approved field placement for 190 agency contact hours in the quarter. This course is designed to provide students with the opportunity to apply the advanced skills and knowledge needed to provide professional, administrative aid within the context of agencies and organizations. Concurrent enrollment with Community Practice I is required for enrollment in this course.
MSW 592
ADVANCED FIELD EDUCATION II This concentration field education course requires working in an approved field placement for 190 agency contact hours in the quarter. This course is designed to provide students with the opportunity to apply the advanced skills and knowledge needed to provide professional, administrative aid within the context of agencies and organizations. Concurrent enrollment with Community Practice II is required for enrollment in this course.

MSW 593
ADVANCED FIELD EDUCATION III This concentration field education course requires working in an approved field placement for 190 agency contact hours in the quarter. This course is designed to provide students with the opportunity to apply the advanced skills and knowledge needed to provide professional, administrative aid within the context of agencies and organizations. Concurrent enrollment with Community Practice III is required for enrollment in this course.

Musicianship

Graduate Course Descriptions

Musicianship

MUS 400
MUSIC RESEARCH I (2 credits) Introduction to research types and techniques; bibliography and bibliographical sources; elementary statistics; the development of writing skills; analysis of research examples.

MUS 401
MUSIC RESEARCH II (2 credits) Research in specific areas of interest, culminating in the writing of a major paper. PREREQUISITE(S): MUS 400.

MUS 420
HISTORY OF THE ORATORIO An analytical and historical study of oratorio literature from 1600 to the present.

MUS 428
HISTORY OF MUSIC I (4 credits) A chronological survey of music in Western civilization from the Middle Ages to the present, with an emphasis on musical style and compositional procedures.

MUS 429
HISTORY OF MUSIC II (4 credits) A chronological survey of music in Western civilization from the Middle Ages to the present, with an emphasis on musical style and compositional procedures. PREREQUISITE(S): MUS 429.

MUS 430
HISTORY OF MUSIC III (4 credits) A chronological survey of music in Western civilization from the Middle Ages to the present, with an emphasis on musical style and compositional procedures. PREREQUISITE(S): MUS 429.

MUS 435
18th & 19th WIND HISTORY AND LITERATURE (4 credits) There is a consistent historical connection between wind music of the ancient and medieval periods, and the music of today. This course will trace that historical line, focusing on the 18th & 19th Centuries. The development of repertoire as well as the functions and uses of wind music will be explored. It is the intention of this class to address the needs of people who will perform, conduct, or teach "classical" wind music as part of a career. Emphasis will be placed on original music suitable for professional concert performance.

MUS 436
20th CENTURY WIND HISTORY AND LITERATURE (4 credits) There is a consistent historical connection between the wind music of the ancient periods and the music of today. This course will briefly trace that connection and then focus on the development and function of wind music in the 20th century. It is the
intention of this class to address the needs of people who seek to perform, conduct, or teach wind music as part of their career.

MUS 475
MEDIEVAL MUSIC Historical survey of music from the Middle Ages: sacred and secular music as artistic, theoretical, and intellectual expression of the Middle Ages; history of musical styles to 1420; performance pratice issues

MUS 478
RENAISSANCE MUSIC Historical survey of music from the Renaissance. Musical style, compositional procedures, and performance practice are studied, within the social, political and economic environment in which the composers worked.

MUS 479
BAROQUE MUSIC Historical survey of Baroque music and performance practice. Representative examples of both vocal and instrumental music are studied, mostly using the analytical techniques of the period, with the aim of becoming familiar with the most significant manners of composition of Baroque composers.

MUS 481
HISTORY OF OPERA The course surveys the history of opera in western culture from its beginnings in the 17th century through the 20th century. The class materials cover stylistic trends and genres as demonstrated through seminal works. Each class period will contain a relevant analytical study.

MUS 482
WORLD MUSIC CULTURES This graduate course will provide a global musical perspective and widen the lens through which students experience music. Through lectures, listening, guest performances, and engaging discussion students will gain rich insights into new worlds of music.

MUS 484
CLASSICAL MUSIC Traces the development of musical style during the Classical Era through the analytical study of examples in the main musical forms such as sonata form. Reception and performance practice then and now will be addressed.

MUS 485
ROMANTIC MUSIC Survey of nineteenth century music through a close analysis of representative Romantic works. The course will cover the expansion of both harmonic language and form leading to their eventual breakdown and reinterpretation.

MUS 486
MUSIC SINCE WORLD WAR II This course surveys Western art music and related theoretical and technical issues from near the end of World War II to the present focusing on the development of new musical languages, new instruments and new methods of analysis.

MUS 487
20TH CENTURY MUSIC BEFORE WWII This course surveys Western art music and related theoretical and technical issues from near the end of the 19th century to World War II, focusing on the new musical languages and aesthetics developed from 1890 until 1940.

MUS 498
INDEPENDENT STUDY

MUS 500
CANDIDACY CONTINUATION A course for continuing graduate students who have not completed research, course requirements, or comprehensive examinations, but wish to retain their student status. “Candidacy Continuation” will enable students to use the University facilities during the quarter they register. The registration will be for 0 credit, although a $40 fee will be charged per quarter.

Writing
Writing

MWR  497
WRITING THE LITERATURE OF FACT

MWR  498
INDEPENDENT STUDY (PREREQUISITE: WRITTEN PERMISSION) Independent Study (prerequisite: Written Permission)

MWR  499
THESIS RESEARCH (PREREQUISITE: WRITTEN PERMISSION) Thesis Research (prerequisite: Written Permission)

MWR  500
INDEPENDENT STUDY (PREREQUISITE: WRITTEN PERMISSION) Independent Study (prerequisite: Written Permission)

MWR  501
THESIS RESEARCH (PREREQUISITE: WRITTEN PERMISSION) PREREQUISITE(S): Written Permission

MWR  502
CANDIDACY CONTINUATION Candidacy Continuation
New Media Studies

NMS 501
PROSEMINAR IN NEW MEDIA STUDIES Introduces the field of New Media Studies and the faculty who teach in it. Each week a different NMS faculty member will present his or her research and relate that topic to the wider field of NMS. Encourages students to clarify their course of study and build alliances with faculty and students with similar interests.

NMS 502
NEW MEDIA, OLD MEDIA New Media, Old Media offers a critical examination of the rise of the information age and its impact on old media. This course will situate the NMS program in the historical/critical development of mass media and its relationship to power and meaning-making.

NMS 503
PRINCIPLES OF GRAPHIC DESIGN This course introduces students to two-dimensional----that is, design for flat surfaces such as computer screens and paper. While the course will introduce students to conceptual frameworks for understanding how two-dimensional surfaces engage and motivate readers and viewers, students in this course will spend much of their time engaged in producing examples of two dimensional work and critiquing the work of other students. This course will be a prerequisite for further courses in Web-based and other digital media design.

NMS 504
TEXT AND IMAGE In this course we will explore the increasingly important dynamic between textual information and visual information. In this course we will read about how hypertext has changed the environment and nature of the written word, and we will examine how the Web has “remediated” previous media into a new dynamic. We will use this knowledge to perform analyses of visual and textual artifacts; students may also create their own artifacts.

NMS 505
WORKSHOP/PORTFOLIO SEMINAR Students will have a choice between a collaborative workshop or a more individually-centered portfolio development seminar. Each group prepares a digital media project for an existing community group, such as a social service organization. Those students preferring to work independently will, under the guidance of the advising professor, develop and defend a complete portfolio of their work within the NMS program. May be repeated for elective credit.

NMS 506
INTERNSHIP In consultation with the director of NMS, students design a field experience under the direction of a project director in the field. The field experience may be derived from issues raised in courses, from thesis research, or from personal research interests.

NMS 507
INDEPENDENT STUDY [PREREQUISITE(S): DEPT APPROVAL] In consultation with the director, advanced students may devise?with the approval of an NMS faculty member?an independent course of study that is related to the field yet does not duplicate a core or elective course already available.

NMS 509
SPECIAL TOPICS IN NEW MEDIA STUDIES See schedule for current offerings.

NMS 520
WEB DESIGN I [PREREQ(S); INSTRUCTOR PERMISSION] An introduction to the process of making functional sites for display on the Internet. Students will learn HTML-based development software, and work with imaging software to apply fundamental theories of new media design to the production of working computer-screen applications. Instructor permission required.
NMS 521 WEB DESIGN II [PREREQ(S): INSTRUCTOR PERMISSION] An introduction to digital authoring software, such as Macromedia Flash, that allows for the combination of animation, sound, and complex user interaction. Students will design and produce working animations while exploring the balance between purpose, usability, and aesthetic appeal. Instructor permission required.

Nursing

Graduate Course Descriptions □ N & O □ Nursing

Nursing

NSG 400
THEORETICAL COMPONENTS OF NURSING In this seminar, participants examine the nature, function and development of selected concepts, models and theories for their relevance to advanced nursing practice and nursing research. The structure of theory is analyzed according to the relationship between its components and the type of theoretical statements used. A process for developing a conceptual framework for inquiry and data-based nursing practice is presented. PREREQUISITE: Graduate Standing.

NSG 401
NURSING RESEARCH I [PREREQUISITE(S):NSG 400 & 480 OR EQUIVALENT] A seminar course emphasizing the concepts of the research process through presentation, discussion, and analysis of various research approaches, methodologies, designs, and instrumentation. Critique of published nursing research will enable the students to use concepts presented to evaluate current studies. PREREQUISITES: NSG 400 & 480 or equivalent.

NSG 402
NURSING RESEARCH II The development of a specific research proposal for the graduate synthesis project or thesis is developed. Emphasis is on protection of human subjects and methods for research utilization, evidenced-based evaluation of clinical practice, and theory-based nursing research. PREREQUISITE(S): NSG 401

NSG 403
THEORETICAL BASIS FOR ADVANCED NURSING PRACTICE: SEMINAR AND PRACTICUM The research colloquium focuses on the use of theory-based nursing interventions in practice. Students select a unique focus for their practicum in collaboration with a faculty advisor that allows them to test frameworks, models and theories in nursing and related disciplines. The course may be repeated. Six quarter hours. This course consists of a research colloquium (2 hours) and a practicum (4 hours). PREREQUISITE(S): Nursing 400 or equivalent.

NSG 406
EXTENDED RESEARCH (COURSE FEE) Non-credit. This course will be required for students who do not complete their thesis during the quarter after all other course work is completed. Fee will be $40.00 per quarter.

NSG 407
MULTICULTURALISM IN HEALTH AND HUMAN SERVICES (CROSS-LISTED AS NSG 370) This course is designed to promote the learner's cultural sensitivity by broadening the knowledge base about transcultural issues in health care and developing multicultural communication skills. Implications of age, race, gender, ethnicity, subculture and social class in health care will be explored. Students perform cultural assessment and examine health care practices in a culture different from their own. A service learning component is required.

NSG 408
HEALTH POLICY ISSUES RELATED TO NURSING CASE MANAGEMENT Health Policy Issues Related To Nursing Case Management

NSG 410
ADVANCED STATISTICS Advanced Statistics

NSG 418
ADVANCED NURSE ANESTHESIA PRACTICE SYMPOSIUM This symposium provides opportunity to explore
current and predicted issues affecting advanced nursing practice in nurse anesthesia. Special topics such as
quality improvement, management strategies, and cost containment will be addressed by expert guest
faculty. Course projects are designed to facilitate of new professional practice models for advanced nurse
anesthesia practice.

NSG 421
EVALUATION IN ALLIED HEALTH EDUCATION AND SERVICE Evaluation In Allied Health Education And Service

NSG 422
APPLIED PHYSIOLOGY (Formerly NSG 525) A synthesis of organic & inorganic chemistry, molecular biology,
and cellular physiology that serves as a foundation for advanced understanding of pathophysiology and
pharmacology. PREREQUISITE: Organic and Inorganic Chemistry

NSG 424
ADVANCED PHYSIOLOGY & PATHOPHYSIOLOGY Survey of current advances on human physiology with
emphasis on the cellular and microcellular basis of health and disease. Students will engage in intensive
study of human anatomy and physiology and complex pathophysiologic processes. Current research findings
are reviewed for implications for health promotion, health maintenance and health restoration.
PREREQUISITE(S): NSG 422 or equivalent. May be taken concurrently with NSG 484

NSG 425
FISCAL MANAGEMENT IN HEALTH CARE Fiscal management and budgetary practices in health care institutions
are explored. Budget preparation, cost-benefit, analysis, product costing, reimbursement, and analysis of
financial status in organizations is emphasized.

NSG 430
POLITICAL AND LEGAL ISSUES IN HEALTH CARE Seminars will discuss social, economic, legislative and
regulatory mechanisms that influence professional practice and health policy in the United States. Emphasis
is on the legal definition of professional practice as well as major issues involved in designing, implementing
and evaluating policy decisions including scope, dynamics, and conceptual and practical dilemmas.

NSG 432
THEORIES OF HEALTH BEHAVIORS ACROSS THE LIFE SPAN Analyzes selected theories that predict decision-
making in health care issues. Concepts and theories related to prevention and optimal health care as well as
social, cultural and economic aspects of wellness and illness are explored.

NSG 433
NURSING AND BIOMEDICAL ETHICS IN HEALTH CARE Seminars and case studies are used to explore issues
and frameworks for ethical practice and research in the health professions.

NSG 439
INTERNATIONAL COMPARATIVE HEALTH CARE SYSTEMS NSG 439 provides a comparison between the
American and British health care systems including their histories, economics, and methods for the delivery of
care. Current challenges and controversies are described. Course is open to Department of Nursing students
who have completed NSG 303 or equivalent and includes a two week experience in London, England. Course
replaces NSG 430: Political and Legal issues and the leadership/education elective.

NSG 448
INDEPENDENT STUDY This course is reserved for individuals who wish to do focused study at the graduate
level.

NSG 450
SELECTED TOPICS IN NURSING This course is reserved for special seminars organized from time to time to
accommodate the needs of groups interested in specific topics.

NSG 451
INTRODUCTION TO NURSING ADMINISTRATION AND LEADERSHIP This course is an introduction to the nursing
leadership concentration as well as an overview of current issues and theory of nursing administration for all
advanced practice nurses. As an introduction to the nursing leadership concentration, this course places
emphasizes on developing master's level skills of critical reading, scholarly writing, analytical discussion, and shared leadership. May also be taken as a health sciences management elective. The expected outcome of the course is a nursing research question and literature review that will form the basis of the students work in their concentration and the final research project.

NSG 452
ORGANIZATIONAL AND FINANCIAL MANAGEMENT IN HEALTH CARE (CROSS-LISTED AS NSG 521) This course provides insight and reflection on the executive role in advanced practice and organizational administration. Concepts, models, and techniques used to manage systems in a variety of health care organizations or practices are analyzed. Organizational assessment, resource development, and product costing are emphasized. This course provides insight and reflection on the executive role in advanced practice and organizational administration. Concepts, models, and techniques used to manage systems in a variety of health care organizations or practices are analyzed. Organizational assessment, resource development, and product costing are emphasized.

NSG 453
CASE MANAGEMENT AND THE MANAGED CARE ENVIRONMENT In this course, students engage in analysis of concepts central to an indepth understanding of the managed care environment and case management as a clinical care system. Emphasis is upon development of skill in organizational and population-based assessment and data analysis, clinical pathway development, and interdisciplinary collaboration. Students develop a data-base for a clinical project focusing on a client population from their work environment.

NSG 454
INNOVATIONS IN HEALTH CARE DELIVERY This course provides the instruction and clinical experience for the development of the advanced practice nurse role as case manager and administrator. Learning activities focus on implementing contemporary data-based nursing practice models in a variety of health care settings, and the diffusion of innovation at the individual, family and organizational levels. PREREQUISITE(S): NSG 453.

NSG 455
CURRICULUM DEVELOPMENT FOR HEALTH CARE SYSTEMS Theories, principles and approaches to curriculum development are explored. Basic elements of curricular design are examined in relation to traditional and evolving paradigms, reflecting development in social and professional dimensions of health care.

NSG 456
PRACTICUM IN NURSING ADMINISTRATION I (PREREQUISITES: NSG 451 AND 452) Practicum In Nursing Administration I (prerequisites: Nsg 451 And 452)

NSG 457
PRACTICUM IN NURSING ADMINISTRATION II (PREREQUISITES: NSG 451, 452 AND 456) Practicum In Nursing Administration II (prerequisites: Nsg 451, 452 And 456)

NSG 458
TEACHING IN HEALTH CARE SYSTEMS (FACULTY PERMISSION REQUIRED) This course prepares the registered nurse to apply theories, principles and strategies in education. Emphasis is on education as a vehicle for enhancing the health of populations and systems from an ecological perspective.

NSG 459
PRACTICUM IN TEACHING IN HEALTH CARE SYSTEMS (PREREQUISITES: 455 AND 458) Practicum In Teaching In Health Care Systems (prerequisites: 455 And 458)

NSG 460
ADVANCED HEALTH ASSESSMENT ACROSS THE LIFESPAN Lecture focus on the synthesis of scientific knowledge in performing integrated, comprehensive assessments of individuals from infancy through maturity. Emphasis is placed on the child in the context of the family and community. Laboratory practice includes taking the health history and performing the physical examination to evaluate primary health care needs. PREREQUISITE(S): NSG 422 and 424 or concurrent. (Laboratory fee required)

NSG 461
ADVANCED PEDIATRIC HEALTH ASSESSMENT Lectures focus on the synthesis of scientific knowledge in performing integrated, comprehensive assessments of children from infancy through early adolescence. Emphasis is placed on the child in the context of the family and community in health and illness. Laboratory practice included taking the health history and performing physical examinations to evaluate primary and clinical care needs. PREREQUISITE(S): NSG 422 and 424 or concurrent. (Laboratory fee required)
NSG 462
ADvanced women’s health assessment Lectures focus on the synthesis of scientific knowledge in performing integrated, comprehensive assessments of women from late adolescence through maturity. Emphasis is placed on the woman in the context of the family and community in health and illness. Laboratory practice includes taking the health history and performing the physical examination to evaluate primary and reproductive health care needs. PREREQUISITE(S): NSG 422 and 424 or concurrent. (Laboratory fee required)

NSG 470
Perspectives on collaboration A seminar course designed to explore the evolving nature and practice of collaboration in nursing and related disciplines. The interrelationship of science, status, and service is emphasized.

NSG 471
Contemporary health care issues Seminar course that explores current issues using ethical, legal and political foci to analyze these issues and relevant research as related to nursing and health care.

NSG 472
Critical care nursing The art of nursing is practiced within the clinical environment with a focus on the roles of health care provider and coordinator in medical-surgical nursing. Analysis and application of current research in the epidemiology of health and disease is used as the basis for decision-making in performing the nursing assessment, contributing to interdisciplinary treatment planning, and facilitating health promotion and illness prevention. The integrated role of the professional nurse in providing holistic care is emphasized.

NSG 473
Primary care of the infant, child, and the adolescent The course is designed to explore health promotion, health protection, and disease prevention dimensions in pediatric primary care. It will focus on many of the common issues related to clinical, developmental and behavioral needs of children and adolescents and their families. The dynamics of the pediatric client and nurse practitioner relationship will be analyzed, focusing on life transitions and the impact of health and illness on infants, children, and adolescents and their families. Clinical practice guidelines will be evaluated through epidemiological and research evidence of selected developmental and behavioral disorders, as well as acute and chronic health problems. Also, selected theory-based models relevant to primary care of children will be critiqued.

NSG 474
Primary care of adults Lectures focus on synthesis and application of scientific knowledge for family advanced practice nursing in primary care. The integrated role of the advanced practice nurse in providing holistic care and collaborative practice is emphasized.

NSG 475
Clinical management of pregnancy and childbearing Lectures focus on synthesis and application of scientific knowledge for obstetrical advanced practice nursing. The integrated role of the advanced practice nurse in providing holistic care and collaborative practice is emphasized. PREREQUISITES: NSG 460 or 462.

NSG 476
Clinical management of pediatric health and illness (PREREQ: NSG 461 OR BY PERMISSION OF INSTRUCTOR) Lectures focus on synthesis and application of scientific knowledge for pediatric advanced practice nursing. The integrated role of the advanced practice nurse in providing holistic care and collaborative practice is emphasized. PREREQUISITE(S): NSG 461 or by permission of the instructor.

NSG 477
Clinical management of women’s health and illness Lectures focus on synthesis and application of scientific knowledge for gynecologic advanced practice nursing. The integrated role of the advanced practice nurse in providing holistic care and collaborative practice is emphasized. PREREQUISITE(S): NSG 460 or 462.

NSG 478
Clinical management of acute and chronic illnesses Lectures focus on synthesis and application of scientific knowledge for adult advanced practice nursing. The integrated role of the advanced practice nurse in providing holistic care and collaborative practice is emphasized. PREREQUISITE(S): NSG 475 or equivalent.

NSG 480
Statistical methods for the health sciences An integrated problem-solving approach is used to study
statistic and measurement used in medicine, nursing and public health. Building on a basic understanding of statistics, students focus on application of statistical methods in research design, interpretation and utilization. Learning experiences emphasize use of computer technology to access, manage, describe and analyze sample data. PREREQUISITE(S): undergraduate statistics.

NSG 482
INTRODUCTION TO EPIDEMIOLOGY (PREREQUISITE: ADV HEALTH STATISTICS) An investigative problem-solving process is used to study the personal and ecological determinants of health and disease frequencies in diverse populations. Data are manipulated to plan, implement and evaluate health promotion and disease control programs for a variety of health care settings. Infectious and chronic disease prevention are emphasized. Students electing to take the course for four credit hours will complete a project using the epidemiologic method. Two credit hours. PREREQUISITE(S): Advanced Health Statistics.

NSG 483
PRACTICUM IN POPULATION BASED NURSING PRACTICE I Analysis and application of current research is used as the basis for decision-making in performing the health history and physical assessment, contributing to interdisciplinary treatment planning, and teaching for health promotion and illness prevention. Nurse in providing holistic care is emphasized.

NSG 484
PHARMACOLOGY FOR ADVANCED NURSING PRACTICE Provides the advanced-practice nurse with the knowledge base necessary to manage pharmacological therapy for acute and chronically ill clients collaboratively with other members of the health care team. Direct and indirect responsibility for clinical decision-making regarding the administration, management and evaluation of drugs are emphasized. PREREQUISITE(S): Physiology for Advanced Nursing Practice or equivalent or concurrent registration, Organic and Inorganic Chemistry, and Microbiology.

NSG 485
THE ART OF FAMILY & COMMUNITY NURSING I (PREREQUISITE: NSG 483) The art of nursing is practiced in simulations and within health care environments with a focus on the roles of health care provider, health facilitator, and care manager. Learning experiences focus on families as both context and client, including healthy infants, children, and women who may be experiencing actual or potential illness manifestations or injury patterns. PREREQUISITE: NSG 483. Twelve credit hours.

NSG 486
THE ART OF FAMILY & COMMUNITY NURSING II [PREREQ(S): NSG 485] The art of nursing is practiced with a focus on integrating the roles of health care provider, teacher, and case manager. Learning experiences focus on adults and families in a variety of settings including the home, hospital, and community. Emphasis is placed on the critical appraisal of individual and community health patterns and mental illness manifestations, and the development and testing of therapeutic nursing interventions in collaboration with other health professionals. Prerequisite: NSG 485. Ten credit hours.

NSG 487
PRACTICUM IN POPULATION-BASED NURSING PRACTICE II A clinical course focusing on the care of selected populations groups in the context of community based delivery systems, e.g., public health. Community assessment and program development are conducted as a basis for family-centered health promotion across the life span.

NSG 488
ISSUES AND CONCEPTS IN POPULATION-BASED NURSING PRACTICE (PREREQUISITES) A seminar course that explores theory, research, and practice of the nurse practitioner/clinical nurse specialist role in managing care for selected populations in the community. Topics including design and testing of clinical nursing practice protocols, managed care, collaborative agreements, professional leadership strategies, and the preceptor relationship.

NSG 489
PRACTICUM IN HOME HEALTH CARE (PREREQUISITE: NSG 488) This course focuses on the episodic care of individuals and families who experience acute illness and need home health care services. Clinical reasoning and therapeutic management of high-technology health care in the home are emphasized. The concepts of case management, client advocacy, family/caregiver education and support, advanced role application and family-centered care are integrated from core courses. The legal and ethical issues in provision of high-technology home care are addressed. Six credit hours.
NSG 490  
PRACTICUM IN POPULATION-BASED NURSING  PRACTICE III This course continues the focus on the care of selected population groups in the context of community based delivery systems, e.g. evidence-based practice and case management. The program designed in NSG 487 is implemented and evaluated. PREREQUISITE: NSG 487

NSG 491  
PRACTICUM IN ACUTE AND CHRONIC ILLNESS Six credit hours.

NSG 492  
CLINICAL DECISION-MAKING IN ADVANCED PRACTICE NURSING I (Prerequisite: NSG 422 & 481) A clinical seminar course designed to introduce the registered nurse to the clinical reasoning process in primary care and its application in the assessment of health and illness across the lifespan. Interpretation of x-ray and laboratory tests is considered as it illuminates findings from the health history and physical exam. Population specific emphasis is provided in small group working sessions. Prerequisite: NSG 422 & 481. Two credit hours.

NSG 493  
CLINICAL DECISION-MAKING IN ADVANCED PRACTICE NURSING II (NSG 483 & 492. Corequisite: NSG 487) This continues the clinical seminar course with a focus on the differential diagnosis and clinical management of illness in primary care setting. Prerequisite: NSG 483 & 492. Corequisite: NSG 487. Two credit hours.

NSG 494  
CLINICAL DECISION-MAKING IN ADV PRACTICE NURSING III (Prereq: NSG 487 & 493. Coreq: NSG 489,490,491)

NSG 498  
PROFESSIONAL NURSE ROLE DEVELOPMENT (Corequisite: NSG 486) The nurse as clinician, educator, manager, activist, research coordinator, and entrepreneur are some of the many roles available to professional nurses in contemporary society. This course provides opportunity to explore selected roles of the professional nurse and the advanced practice nurse in diverse practice settings. Students select readings and seminar topics for discussion in class as well as design and implement a project for a selected professional nurse role. Principles of needs assessment, program planning and evaluation provide the framework for the project. Refinement of skills in critical thinking, decision-making, communication, and innovation are emphasized. Corequisite: NSG 486. Two credit hours.

NSG 500  
CHEMISTRY AND PHYSICS  (INCLUDES CELL PHYSIOLOGY) Survey of principles of physics and comprehensive analysis of cell physiology, organic and biochemistry with emphasis upon clinical application and integration of principles in the advanced practice of nurse anesthesia. Current research findings and their anesthetic implications will be discussed. Six credit hours.

NSG 501  
ANATOMY AND PHYSIOLOGY I An intensive course designed to provide the nurse anesthetist with current knowledge of advanced anatomy and physiology of the nervous system and endocrine systems. Emphasis is placed on the structural and functional role of each system in maintaining homeostasis. Clinical implications of current research findings will be stressed.

NSG 502  
ANATOMY AND PHYSIOLOGY II An intensive course designed to provide the nurse anesthetist with current knowledge of advanced anatomy and physiology of the cardiovascular, respiratory and renal systems. Emphasis is placed on the structural and functional role of each system in maintaining homeostasis. Clinical implications of current research findings will be stressed. Six credit hours. PREREQUISITE(S):

NSG 503  
PATHOPHYSIOLOGY An intensive course designed to provide the nurse anesthetist with current knowledge of diseases and disorders of the nervous, cardiovascular, respiratory and renal systems. Implications for the design and implementation of an appropriate nurse anesthesia care plan for individuals with specific system disease/disorders will be discussed in detail. Emphasis will be placed on system-specific diagnostic and therapeutic procedures that require nurse anesthesia management. Six credit hours.

NSG 504  
PRINCIPLES OF ANESTHESIA PRACTICE I This course is designed to introduce the student to the advanced practice of nurse anesthesia. Emphasis is placed upon pre-operative patient assessment, informed consent, anesthesia equipment and technology, intra-operative patient assessment, and postoperative patient care.
Ethical, legal, and professional issues that influence the advanced practice of nurse anesthesia will be addressed. Laboratory experience included.

NSG 505
PRINCIPLES OF ANESTHESIA PRACTICE II An intensive course designed to provide the nurse anesthetist with current knowledge of special populations, including pediatric, obstetric, and geriatric patients. Emphasis will be placed on the anatomical and physiological differences that characterize the population with a focus on specific anesthetic management. Principles and techniques of regional anesthesia and pain management will also be discussed in detail. The design and implementation of an appropriate nurse anesthesia care plan for the geriatric, obstetric, and pediatric patient who requires regional anesthesia or pain management will be stressed.

NSG 506
PRINCIPLES OF ANESTHESIA PRACTICE III An in-depth course with emphasis on the pathophysiology and anesthetic management of the trauma and burn patient, patients presenting for EENT surgery and peripheral-vascular surgery, and preparation and anesthetic management of patients undergoing diagnostic and therapeutic procedures outside of the operating room. Implications for the development, implementation, and evaluation of nurse anesthesia care plans will be stressed.

NSG 507
PHARMACOLOGY I This course is an in-depth introduction to anesthetic pharmacology. It covers the pharmacokinetics, pharmacodynamics, and pharmacotherapeutics of drugs used in the administration of general, local, and regional anesthesia and provides the scientific basis for the advanced practice of nurse anesthesia. Six credit hours.

NSG 508
PHARMACOLOGY II This course builds on the pharmacokinetics principles covered in NSG 507 and includes the pharmacodynamics, and pharmacotherapeutics of drugs used in the treatment of cardiac, vascular, respiratory, endocrine, renal, and neurological/physiological disorders. Implications of current therapy with these agents as adjunctive therapy in the advanced practice of nurse anesthesia will be stressed.

NSG 510
ANESTHESIA PRACTICUM I (FORMERLY NSG 509; PREREQUISITES: PHARM I, PAP I) An introduction to the clinical practice of nurse anesthesia with emphasis on the principles introduced in NSG 500, 504, and 507. Includes administration of anesthesia for select patient populations under direct instruction and supervision of anesthesiologist or CRNA. Clinical site: Ravenswood Hospital Medical Center. 0 credit hours.

NSG 511
ANESTHESIA PRACTICUM II (FORMERLY #510) (PREREQ: NSG 510, APPI/APPII/APPIII) Expanded application and integration of basic principles applicable to NSG 510. Anesthesia Practicum I. Clinical site: Ravenswood Hospital Medical Center. Zero credit hours.

NSG 512
ANESTHESIA PRACTICUM III (PREREQUISITES: NSG 510, 511) This practicum provides the student with an opportunity to apply and integrate the basic principles of nurse anesthesia practice. Emphasis is on the anesthetic comprehensive management of the adult patient presenting for elective and emergency surgery. Clinical site: Ravenswood Hospital Medical Center. Zero credit hours.

NSG 513
ANESTHESIA PRACTICUM IV (PREREQUISITES: NSG 510, 511, 512) The first of four advanced anesthesia practica that allow the senior student to develop, implement, and evaluate nurse anesthesia care plans for all patient populations undergoing a wide variety of specialty surgical and therapeutic procedures. It is designed to broaden the knowledge and skill base of the second year student. Includes seminar presentations on selected topics or issues relative to the advanced practice of nurse anesthesia. Clinical site: Ravenswood Hospital Medical Center and assigned affiliate clinical sites. 0 credit hours.

NSG 514
ANESTHESIA PRACTICUM V (PREREQUISITES: NSG 510,511,512,513) The second in a series of advanced practica that provide student with the opportunity to develop, implement, and evaluate an anesthesia care plan for all patient populations undergoing a wide variety of surgical and therapeutic procedures. 0 credit hours.

NSG 515
ANESTHESIA PRACTICUM VI (PREREQUISITES: NSG 510, 511, 512, 513, 514) The third in a series of advanced practica that provide the student with the opportunity to develop, implement, and evaluate an anesthesia care plan for all patient populations undergoing a wide variety of surgical and therapeutic procedures. Emphasis is placed on application, integration, and synthesis of the knowledge, skills, and attitudes representative of the advanced practice of nurse anesthesia. Includes seminar presentations on selected topics or issues relative to the advanced practice of nurse anesthesia. Clinical Site: Ravenswood Hospital Medical Center or assigned affiliate clinical sites. Zero credit hours.

NSG 516
ANESTHESIA PRACTICUM VII (PREREQUISITES: NSG 510, 511, 512, 513, 514, 515) The final advanced practicum in which the senior student demonstrates the knowledge, skills, and attitudes necessary for entry level nurse anesthesia practice: proficiency in providing perioperative nurse anesthesia care for all patient populations; an ethical and culturally sensitive approach to patient care; analysis and synthesis of current research for application into practice; ability to perform a comprehensive self evaluation; cost containment strategies; and display of a professional attitude toward life long learning. Includes seminar presentations on selected topics or issues relative to the advanced practice of nurse anesthesia. Clinical site: Ravenswood Hospital Medical Center and assigned affiliate clinical sites. Zero credit hours.

NSG 522
INNOVATIONS IN HEALTH CARE DELIVERY (CROSS-LISTED AS NSG 452) This course provides the laboratory and clinical experiences for the development of the professional nurse role as case manager and administrator. Learning activities focus on implementing contemporary data-based nursing practice models in a variety of health care settings, and the diffusion of innovation at the individual, family and organizational levels.

NSG 525
SCIENTIFIC FOUNDATIONS FOR ADVANCED PRACTICE NURSING

NSG 598
GRADUATE SYNTHESIS (PREREQUISITES: NSG 400, NSG 401, NSG 402, NSG 480 AND PERMISSION OF INSTRUCTOR) Students conduct supervised research terminating in a manuscript suitable for publication. The study must be approved by the selected faculty advisor and the Nursing Department Human Subjects Committee prior to registration for credit hours. Students are encouraged to generate research questions from their clinical area of study courses early in their program. PREREQUISITE(S): NSG 400, NSG 401, NSG 402 and NSG 480 and permission of instructor

NSG 599
THESIS RESEARCH Students conduct supervised original research terminating in a completed and bound thesis. The study must be approved by the selected faculty advisor and the thesis committee approved by the department prior to registration for credit hours and must be completed during the term. Formerly NSG 405. PREREQUISITE(S):NSG 400, 401, 402,480 & permission of instructor
Performance

PRF 511
GRADUATE ACTING I Four quarter hours. Beginning with a series of exercised and improvisations, the class introduces the acting student to the basic components of the acting process. Scene work forms the backbone of this class. (prereq)

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PRF 521
GRADUATE MOVEMENT I Two quarter hours. Movement based on the technique of yoga as a means for the discovery of body mechanics, physical alignment, self-use and over-all self-awareness. This class will also meet two extra hours with a different instructor to concentrated on the imaginative use of self, to explore physical improvisation and to explore movement techniques that will aid the student to use themselves more freely and expand their range of expression.

PRF 522
GRADUATE MOVEMENT I Two quarter hours. Movement based on the technique of yoga as a means for the discovery of body mechanics, physical alignment, self-use and over-all self-awareness. This class will also meet two extra hours with a different instructor to concentrated on the imaginative use of self, to explore physical improvisation and to explore movement techniques that will aid the student to use themselves more freely and expand their range of expression. (prereq) PRF 521

PRF 523
GRADUATE MOVEMENT I Two quarter hours. Work focuses on full body awareness through Feldenkrais (R) movement lessons and through the study of anatomy. The emphasis will be place on deepening the actor’s kinesthetic awareness and on developing a more articulate physical instrument, understanding the restrictions of habit, exploring dynamics and increasing the ability to make dynamic choices. (prereq) PRF 522

PRF 524
GRADUATE MOVEMENT I: FELDENKRAIS Graduate Movement I: Feldenkrais (1) An experiential and demonstration course in better self-use and physical organization. Approaches include Feldenkrais, “Awareness Through Movement” lessons and the study of anatomy.

PRF 525
GRAD MOVEMENT I: FELDENKRAIS Grad Movement I: Feldenkrais (1 quarter hour) An experiential and demonstration course in better self-use and physical organization. Approaches include Feldenkrais, "Awareness Through Movement" lessons and the study of anatomy. Prereq: PRF 524

PRF 530
MFA I SPEECH This course is designed to open awareness regarding the placement of vocal resonance and the shaping of vowels and consonants.

PRF 531
GRADUATE VOICE AND SPEECH I Two quarter hours. Foundation work consists of breathwork, skeletal
alignment, and the development of free voice flow. Classes include a regime of intensive group exercises, and attention is paid to the expansion of each actor's individual expressiveness. The fundamental work is inspired by the Feldenkrais(r) and the Lessac System and is further influenced by the writings of Cicely Berry and Patsy Rodenburg. (prereq)

PRF 532
GRADUATE VOICE AND SPEECH I Two quarter hours. Foundation work consists of breathwork, skeletal alignment, and the development of free voice flow. Classes include a regime of intensive group exercises, and attention is paid to the expansion of each actor's individual expressiveness. The fundamental work is inspired by the Feldenkrais(r) and the Lessac System and is further influenced by the writings of Cicely Berry and Patsy Rodenburg. (prereq)

PRF 533
GRADUATE VOICE AND SPEECH I Two quarter hours. Actors will continue to explore fundamental skills acquired during Fall and Winter Quarters. The actors learn the first half of the progression of exercises in Kristin Linklater's Freeing the Natural Voice. The focus is on connecting acting impulses to the voice.

PRF 540
GRAD SPEECH I: ADVANCED NOTATION Objectives are to extend the use of phonetic symbols to describe the speech of self and others, to explore an ever-widening range and flexibility of choice in pronunciation, to develop a more acute "ear" for the music of vowels and consonants and to apply the work to texts.

PRF 551
MFA I IMPROVISATION MFA I Improvisation (2 quarter hours) Intensive work in Spolin-based improvisation in which the issues of creating theatrical reality are addressed through the medium of theatre games.

PRF 552
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PRF 553
MFA I IMPROVISATION MFA I Improvisation (2 quarter hours) Intensive work in Spolin-based improvisation in which the issues of creating theatrical reality are addressed through the medium of theatre games.

PRF 561
REHEARSAL AND PERFORMANCE I Five quarter hours. Graduate acting and direction students are continually involved in rehearsal and performance of plays in the Showcase, the Playworks series and workshop productions. Acting students constitute the casting pool for the school. (prereq)

PRF 562
REHEARSAL AND PERFORMANCE I Five quarter hours. Graduate acting and direction students are continually involved in rehearsal and performance of plays in the Showcase, the Playworks series and workshop productions. Acting students constitute the casting pool for the school. (prereq)

PRF 563
REHEARSAL AND PERFORMANCE I Five quarter hours. Graduate acting and direction students are continually involved in rehearsal and performance of plays in the Showcase, the Playworks series and workshop productions. Acting students constitute the casting pool for the school. (prereq)

PRF 571
STUDIO I Studio I (2) Studio is a flexible laboratory time period designed to accommodate a number of possibilities of workshops, lectures, and demonstrations with guest artists mainly from the Chicago theatre community and beyond. Studio also accommodates a number of projects generated by the MFA Acting students themselves. As studio is a process class, projects and workshops may or may not result in a showing. (Some activities in the class will combine MFA I and MFA II students and some will be specific to each class.)

PRF 572
STUDIO I Studio I (2) Studio is a flexible laboratory time period designed to accommodate a number of possibilities of workshops, lectures, and demonstrations with guest artists mainly from the Chicago theatre community and beyond. Studio also accommodates a number of projects generated by the MFA Acting students themselves. As studio is a process class, projects and workshops may or may not result in a showing. (Some activities in the class will combine MFA I and MFA II students and some will be specific to
STUDIO I

Studio I (2) Studio is a flexible laboratory time period designed to accommodate a number of possibilities of workshops, lectures, and demonstrations with guest artists mainly from the Chicago theatre community and beyond. Studio also accommodates a number of projects generated by the MFA Acting students themselves. As studio is a process class, projects and workshops may or may not result in a showing. (Some activities in the class will combine MFA I and MFA II students and some will be specific to each class.)

STAGE COMBAT

One quarter hour. Students learn the fundamental of hand-to-hand combat and weaponry with a focus on developing skills safely and effectively for the stage. (prereq)

DIRECTING I

This course covers the basics of the directing process with an emphasis on textual analysis. Lecture discussion and performance projects are utilized to develop a common understanding and vocabulary useable in the wide variety of theatrical situations the contemporary director is likely to confront. The final project of the class is the direction of a short play. (prereq)

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IMPROVISATION

Four quarter hours. This workshop for graduating and performance students is designed to renew the student's relationship with the foundation of the training program: Spolin-based improvisational work. There is a particular emphasis on the use of games as a stimulus for spontaneity, strong playing relationships and trouble shooting within the rehearsal process.

DIRECTING THEORIES

This course is designed to introduce students to the history of stage directing as an independent art form and to the key directorial thinkers of Western theatre. Through both lecture and practice, student learn the theories and techniques of such innovators as Stanislavaski, Meyerhold, Craig Artaud, Brecht, Clurman, Grotowski, Brook, LeCompte, and Bogart.

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INDEPENDENT STUDY

GRADUATE ACTING II

Five quarter hours. Classical work begins with Shakespeare and possibly other classical texts. Special focus is given to Scansion and First Folio technique. This study is coordinated with both movement and voice and speech classes. (prereq) PRF 513

GRADUATE ACTING II

Five quarter hours. Classical work begins with Shakespeare and possibly other classical texts. Special focus is given to Scansion and First Folio technique. This study is coordinated with both movement and voice and speech classes. (prereq) PRF 611
PRF 613
GRADUATE ACTING II Five quarter hours. Classical work begins with Shakespeare and possibly other classical texts. Special focus is given to Scansion and First Folio technique. This study is coordinated with both movement and voice and speech classes. (prereq) PRF 612

PRF 614
THE DIRECTOR AND THE ACTING PROCESS This year-long class focuses on how the director helps the actor. Through both participation and observation in this undergraduate scene study class taught by a senior member of the acting faculty, the directing student acquires the skills and strategies necessary in helping the actor personalize and embody the text.

PRF 615
THE DIRECTOR AND THE ACTING PROCESS This year-long class focuses on how the director helps the actor. Through both participation and observation in this undergraduate scene study class taught by a senior member of the acting faculty, the directing student acquires the skills and strategies necessary in helping the actor personalize and embody the text.

PRF 616
THE DIRECTOR AND THE ACTING PROCESS This year-long class focuses on how the director helps the actor. Through both participation and observation in this undergraduate scene study class taught by a senior member of the acting faculty, the directing student acquires the skills and strategies necessary in helping the actor personalize and embody the text.

PRF 617
TECHNIQUE One quarter hour. An advanced level acting course which concentrates the work on carefully selected exercises, monologues and scenes, in order to develop physical, sensorial and emotional skills in preparing a role. (prereq)

PRF 618
TECHNIQUE One quarter hour. An advanced level acting course which concentrates the work on carefully selected exercises, monologues and scenes, in order to develop physical, sensorial and emotional skills in preparing a role. (prereq)

PRF 619
TECHNIQUE One quarter hour. An advanced level acting course which concentrates the work on carefully selected exercises, monologues and scenes, in order to develop physical, sensorial and emotional skills in preparing a role. (prereq)

PRF 621
GRADUATE MOVEMENT II Two quarter hours. Movement work focused on the exploration of effort/shape and how to function within the boundaries of form. Period dances, manners, and clothing will be explored and the creation of specific worlds (styles) will be emphasized. (prereq) PRF 523.

PRF 622
GRADUATE MOVEMENT II Two quarter hours. Movement work focused on the exploration of effort/shape and how to function within the boundaries of form. Period dances, manners, and clothing will be explored and the creation of specific worlds (styles) will be emphasized. (prereq) PRF 621

PRF 623
GRADUATE MOVEMENT II Two quarter hours. Movement work designed to further the work in period dances, manners, and the creation of specific worlds (styles) with an emphasis on the student taking greater control of this research and its implementation into actin. Full Body awareness through movement lessons is continued. Imaginative use of self is also channeled through character mask work. (prereq) PRF 622

PRF 631
GRADUATE VOICE AND SPEECH II Two quarter hours. Intensive, individualized work on the development of the full range of the actor's voice. The second half of the Linklater progression is explored in depth. Texts are chosen that place greater demands on the actor's growing emotional and vocal capabilities. (prereq) PRF 533

PRF 632
GRADUATE VOICE AND SPEECH II Two quarter hours. Intensive, individualized work on the development of the full range of the actor's voice. The second half of the Linklater progression is explored in depth. Texts are chosen that place greater demands on the actor's growing emotional and vocal capabilities. (prereq) PRF 631
PRF 633
GRADUATE VOICE AND SPEECH II Two quarter hours. Intensive, individualized work on the development of the full range of the actor's voice. The second half of the Linklater progression is explored in depth. Texts are chosen that place greater demands on the actor's growing emotional and vocal capabilities. (prereq) PRF 632

PRF 641
GRADUATE ACTING II: MYTH, FABLE, & FOLKLORE IN DRAMA Graduate Acting II: Myth, Fable, & Folklore in Drama (2) This course explores the world of archetype, performance and magic in drama across boundaries of time and tradition. Inspired by folktales, myths, oral poetry and rituals from many traditions, the students develop original and play-based theatrical work both solo and ensemble. Resources include the traditional stories of African, Asian, South American, European and American literature, as well as plays from modernity that explore a mythic or folkloric basis.

PRF 642
GRADUATE ACTING II: TRAGIC FOCUS FROM 1700 TO 1950 Graduate Acting II: Tragic Focus from 1700 to 1950 (2) This course explores a broad swath of tragic-focused dramatic material from Restoration through 1950. The students select scenes from plays that follow tragic shape and perform them in scene study form.

PRF 643
GRADUATE ACTING II: COMIC FOCUS FROM 1700 TO 1950 Graduate Acting II: Comic Focus from 1700 to 1950 (2) This course explores a broad swath of comic-focused dramatic material from Restoration through 1950. The students select scenes from plays that follow comic shape and perform them in scene study form.

PRF 661
REHEARSAL AND PERFORMANCE II Five quarter hours. Graduate acting and directing students are continually involved in rehearsal and performance of plays in the showcase, the Playworks series, and workshop productions. Acting students constitute the casting pool for the school. (prereq)

PRF 662
REHEARSAL AND PERFORMANCE II Five quarter hours. Graduate acting and directing students are continually involved in rehearsal and performance of plays in the showcase, the Playworks series, and workshop productions. Acting students constitute the casting pool for the school. (prereq)

PRF 663
REHEARSAL AND PERFORMANCE II Five quarter hours. Graduate acting and directing students are continually involved in rehearsal and performance of plays in the showcase, the Playworks series, and workshop productions. Acting students constitute the casting pool for the school. (prereq)

PRF 671
STUDIO II Studio II (2) Studio is a flexible laboratory time period designed to accommodate a number of possibilities of workshops, lectures, and demonstrations with guest artists mainly from the Chicago theatre community and beyond. Studio also accommodates a number of projects generated by the MFA Acting students themselves. As studio is a process class, projects and workshops may or may not result in a showing. (Some activities in the class will combine MFA I and MFA II students and some will be specific to each class.)

PRF 672
STUDIO II Studio II (2) Studio is a flexible laboratory time period designed to accommodate a number of possibilities of workshops, lectures, and demonstrations with guest artists mainly from the Chicago theatre community and beyond. Studio also accommodates a number of projects generated by the MFA Acting students themselves. As studio is a process class, projects and workshops may or may not result in a showing. (Some activities in the class will combine MFA I and MFA II students and some will be specific to each class.)

PRF 673
STUDIO II Studio II (2) Studio is a flexible laboratory time period designed to accommodate a number of possibilities of workshops, lectures, and demonstrations with guest artists mainly from the Chicago theatre community and beyond. Studio also accommodates a number of projects generated by the MFA Acting students themselves. As studio is a process class, projects and workshops may or may not result in a showing. (Some activities in the class will combine MFA I and MFA II students and some will be specific to each class.)
**PRF 681**
DIRECTING II Three quarter hours. A laboratory class in which student directed scenes are rehearsed and presented for discussion and criticism. Several cuttings are directed during the year. (prereq) PRF 583

**PRF 682**
DIRECTING II Three quarter hours. A laboratory class in which student directed scenes are rehearsed and presented for discussion and criticism. Several cuttings are directed during the year. (prereq) PRF 681

**PRF 683**
DIRECTING II Three quarter hours. A laboratory class in which student directed scenes are rehearsed and presented for discussion and criticism. Several cuttings are directed during the year. (prereq) PRF 682

**PRF 690**
INTERNERSHIP The internship provides the student with an opportunity to learn by working with experienced professionals in an area related to his or her area of study at The Theatre School.

**PRF 711**
GRADUATE ACTING III Three quarter hours. A scene study and monologue class taught by a resident or visiting actor or director. Scenes and monologues are drawn from a variety of performance styles. The class is intended to help the student navigate the gap between training and the professional acting world. (prereq) PRF 613

**PRF 712**
GRADUATE ACTING III Three quarter hours. A scene study and monologue class taught by a resident or visiting actor or director. Scenes and monologues are drawn from a variety of performance styles. The class is intended to help the student navigate the gap between training and the professional acting world. (prereq) PRF 711

**PRF 713**
GRADUATE ACTING III Three quarter hours. A scene study and monologue class taught by a resident or visiting actor or director. Scenes and monologues are drawn from a variety of performance styles. The class is intended to help the student navigate the gap between training and the professional acting world. (prereq) PRF 712

**PRF 716**
GRADUATE SHOWCASE (2 Quarter Hours). Through the rehearsal process, graduate acting majors prepare monologues and scenes, culminating ultimately in a showcase for an invited audience of casting directors, agents, and directors.

**PRF 720**
ACTING FOR THE CAMERA Two quarter hours. "Film acting" prepares the student for the professional world in front of the camera. Working in front of the camera(s), the student learns the different techniques between stage and film techniques and the differences, between soaps, sitcoms, commercials, and features. The student is also exposed to life on the set, contracts, agents, managers and steps to finding work. This class is a bridge for the student from the classroom to the professional world.

**PRF 721**
GRADUATE MOVEMENT III Two quarter hours. The technique of movement to music will be used to: stimulate the actor's imagination, experiment with the identification, translation, and articulation of creative impulses, intensify ensemble work, expand the range of expression and strengthen and condition the body. (prereq) PRF 623

**PRF 722**
GRADUATE MOVEMENT III Two quarter hours. An independent study of movement for the actor. (prereq) PRF 721

**PRF 723**
GRADUATE MOVEMENT III Two quarter hours. The students will explore African dance, including West African dance styles, songs and rhythms, ethnic groups from which the dances and songs originated, and the relationships between various West Africa tribal rhythms and movements. (prereq) PRF 722

**PRF 731**
GRADUATE VOICE AND SPEECH III Two quarter hours. Students continue to develop professional skills through
Graduate Course Descriptions

Philosophy

PHL 400
SPECIAL TOPICS IN TRADITIONAL PHILOSOPHERS Special Topics In Traditional Philosophers

PHL 410
PLATO I A study of Plato's life and early dialogues.
PHL  411
PLATO II A study of the middle and later dialogues.

PHL  415
ARISTOTLE I A study of Aristotle's life and selected topics of his theoretical philosophy: organon, physics, psychology, and metaphysics.

PHL  416
ARISTOTLE II A study of aspects of Aristotle's practical and productive philosophy: ethics, politics, rhetoric, and poetics.

PHL  420
AUGUSTINE A study of Augustine's philosophy through an examination of some of his major writings.

PHL  425
AQUINAS A study of his philosophy, especially its relations to theology, through an examination of selected major works.

PHL  434
HOBBS An examination of Hobbes' role as the father of modern political philosophy: a study of the Leviathan and the Elements of Law.

PHL  435
DESCARTES An examination of Descartes' role as the father of modern philosophy; issues of the Regulae, the Discours, and the Meditations.

PHL  436
MALEBRANCHE Malebranche

PHL  437
LOCKE A study of the major theoretical works.

PHL  438
LEIBNIZ A study of the major philosophical works.

PHL  440
SPINOZA A study of the Ethics and/or the Theologico-Political Treatise.

PHL  441
ROUSSEAU A study of the major theoretical works.

PHL  443
MEDICAL LEGAL ETHICS  (SEE INSTRUCTOR FOR REGISTRATION) An examination of contemporary problems in the area of medical legal ethics.

PHL  445
HUME An examination of Hume's place in classical British empiricism; a study of A Treatise of Human Nature.

PHL  451
EARLY AMERICAN PHILOSOPHY None

PHL  452
CONTEMPORARY AMERICAN PHILOSOPHY None

PHL  470
PHILOSOPHY OF WITTGENSTEIN  (INSTRUCTOR'S PERMISSION REQUIRED) None

PHL  495
ADVANCED SYMBOLIC LOGIC None

PHL  500
SPECIAL TOPICS IN THE HISTORY OF PHILOSOPHY None
PHL 510
KANT I An introduction to the critical philosophy of Kant by concentrating on the Critique of Pure Reason.

PHL 511
KANT II A study of the Critique of Practical Reason or the Critique of Judgment.

PHL 512
KANT III Kant III: Kant's Political Writings

PHL 513
THEORETICAL FOUNDATIONS OF NORMATIVE ETHICS I A comparative overview of the ethical writings of Aristotle and Aquinas, with emphasis on the natural law tradition.

PHL 514
THEORETICAL FOUNDATIONS OF NORMATIVE ETHICS II A comparative overview of Kant's moral theory and Mill's moral theory.

PHL 515
HEGEL I An Introduction to Hegel: The Phenomenology of Spirit.

PHL 516
HEGEL II Readings in the Science of Logic or the Philosophy of Right.

PHL 517
HOLDERLIN An examination of the major theoretical writings, ca. 1797-1804.

PHL 518
SCHELLING An examination of the treatise on human freedom (1809).

PHL 520
MARX I An introduction to Marx through a study of selected topics and works.

PHL 521
MARX II A study of selected topics and works from both Marx/Engels and their disciples.

PHL 522
SOCIAL AND POLITICAL PHILOSOPHY None

PHL 525
NIETZSCHE An introduction to the philosophy of Nietzsche through Beyond Good and Evil, Thus Spake Zarathustra and selected topics and works.

PHL 527
PHILOSOPHY, ETHICS, AND ECONOMICS An examination of classical and contemporary theories from Smith and Marx to Friedman, Held and others.

PHL 535
HUSSERL I An introduction to Husserl through a study of selected topics and works.

PHL 536
HUSSERL II Selected topics and works.

PHL 540
SCHELER I An introduction to Scheler, with emphasis on the phenomenology of value.

PHL 541
SCHELER II Selected topics and works (Resentment, etc).

PHL 550
HEIDEGGER I An introduction to Heidegger through study of a major work and one of the Marburg lectures.

PHL 551
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>PHL 551</td>
<td>Heidegger II: Selected topics and questions.</td>
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<tr>
<td>PHL 552</td>
<td>Heidegger III: Heidegger III</td>
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<tr>
<td>PHL 557</td>
<td>Topics in Continental Philosophy: None</td>
</tr>
<tr>
<td>PHL 559</td>
<td>Foucault: An introduction to Foucault through a study of selected topics and works.</td>
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<tr>
<td>PHL 560</td>
<td>The Philosophy of Gabriel Marcel: The Philosophy Of Gabriel Marcel</td>
</tr>
<tr>
<td>PHL 561</td>
<td>Lyotard: An introduction to Lyotard through a study of selected topics and works.</td>
</tr>
<tr>
<td>PHL 565</td>
<td>Merleau-Ponty I: A study of The Phenomenology of Perception with consideration given to Merleau-Ponty's place in contemporary philosophy.</td>
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<tr>
<td>PHL 566</td>
<td>Merleau-Ponty II: A study of the themes of his social philosophy and final ontology.</td>
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<tr>
<td>PHL 570</td>
<td>Sartre I: A study of Being and Nothingness with attention given to Sartre's early phenomenological studies as background and to some of his literary works and criticism, such as Nausea and Saint-Genet.</td>
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<tr>
<td>PHL 571</td>
<td>Sartre II: The social thought of Jean-Paul Sartre. A study of A Critique of Dialectic Reason along with appropriate literary works and more recent political writings.</td>
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<tr>
<td>PHL 575</td>
<td>Responses to Sade: An examination of Sade's writings and responses by such thinkers as de Beauvoir, Lacan, Deleuze, Klossowski, and Blanchot.</td>
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<tr>
<td>PHL 577</td>
<td>Derrida I: An introduction to Derrida through a study of selected topics and works.</td>
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<tr>
<td>PHL 578</td>
<td>Derrida II: Selected topics and questions.</td>
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<tr>
<td>PHL 584</td>
<td>Ricoeur Narrative: Ricoeur Narrative</td>
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<tr>
<td>PHL 585</td>
<td>Ricoeur: A study of Ricoeur's philosophy and phenomenology of the will with stress on its background and its place in contemporary French phenomenology.</td>
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<tr>
<td>PHL 586</td>
<td>Metaphor and Poetic Language: An examination of Ricoeur's work in poetics.</td>
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<tr>
<td>PHL 587</td>
<td>Reading Levinas I: Reading Levinas I</td>
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<tr>
<td>PHL 588</td>
<td>Reading Levinas II: Reading Levinas II</td>
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<tr>
<td>PHL 589</td>
<td>Philosophy, Literature, Community: Discussion of such thinkers as Bataille, Derrida, Jabes, and Nancy.</td>
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<tr>
<td>PHL 590</td>
<td>Trends in Contemporary French Philosophy: A look at the increasing importance of structuralism,</td>
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</table>
deconstruction, philosophy of language, and hermeneutics in contemporary French thought.

PHL  591
CRITICAL RACE THEORY Critical Race Theory.

PHL  600
SEMINAR ON AMERICAN THOUGHT None

PHL  601
SEMINAR ON AESTHETICS SEMINAR ON AESTHETICS

PHL  617
SEMINAR ON GENESIS AND EGO IN HUSSERL (COURSE # INACTIVE 9/1/1983) Seminar On Genesis And Ego In Husserl (course # Inactive 9/1/1983)

PHL  629
SEMINAR ON CONTEMPORARY PROBLEMS None

PHL  639
SEMINAR ON RAWLS, NOZICK, AND THE CONTRACTUAL TRADITION A study of the contract model from its roots in Locke and Rousseau to the work of Rawls and Nozick.

PHL  640
PROBLEMS IN ETHICS (CROSS-LISTED AS GSB 640) A seminar in business ethics that centers on theoretical, practical, and pedagogical issues.

PHL  641
SEMINAR ON THE CONTINENTAL TRADITION IN ETHICS A comparative discussion of the ethical theories of Scheler, Hartmann, Brentano, Levinas, etc.

PHL  650
TOPICS IN RELIGIOUS ETHICS (CROSS-LISTED AS MLS 442 & GSB 650) A study of religious influences on theoretical and practical ethics.

PHL  651
TOPICS IN BUSINESS ETHICS A seminar in business ethics that centers on theoretical, practical, and pedagogical issues.

PHL  656
SEMINAR ON SOCIAL AND POLITICAL THOUGHT A study of selected writings of key social and political thinkers.

PHL  657
TOPICS IN SOCIAL AND POLITICAL THOUGHT Topics In Social And Political Thought

PHL  660
SEMINAR IN FEMINIST ETHICS (CROSS-LISTED AS MLS 477/WMS 410) Examination of the care perspective as compared to the justice perspective on moral development.

PHL  661
TOPICS IN FEMINIST THEORY Includes such themes as feminist ontologies, theories of discourse and writing, science and technology, etc.

PHL  697
GRADUATE TEACHING PRACTICUM Examination of teaching method concepts.

PHL  698

PHL  699
PHL 700
INDEPENDENT STUDY None

PHL 701
RESIDENT CANDIDACY CONTINUATION Students admitted to candidacy for the doctoral degree who have completed all course and dissertation registration requirements and who are using the facilities of the University for study and research are required to be registered each quarter of the academic year until the dissertation and final examination have been completed. Non-credit, $40.00 per quarter.

PHL 702
NON-RESIDENT CANDIDACY CONTINUATION Non-Resident Candidacy Continuation

Physical Education

Graduate Course Descriptions P, Q & R Physical Education

Physical Education

PE 450
PSYCHOLOGY OF SPORT BEHAVIOR AND ATHLETIC PERFORMANCE A study of the philosophical and psychological concepts pertaining to sports, in general, and competitive athletic programs specifically. The course will be conducted in a seminar style, analyzing the various coaching and administrative techniques in sports programs. Emphasis will be given to intercollegiate sports. Elementary, secondary and professional sports programs will be included.

PE 451
CURRENT ISSUES AND TRENDS IN ATHLETICS AND PHYSICAL EDUCATION An analysis of the current issues, trends and changes in competitive athletic programs and physical education programs. Major consideration will be given to problems relating to development of goals and objectives, preparation of program budgets, financial considerations, media input, and legal ramifications of the various programs.

PE 452
EXERCISE SCIENCE AND SPORT A study of the advanced concepts and theory pertaining to analysis of human movement. Application will be made for the teaching of fundamental motor skills as well as the specialized analysis made by the coach. Discussion of the various techniques, sophisticated equipment, and empirical evidence will support the conclusions determined in the seminar. The course will be designed for professional physical educators and individuals involved in the coaching profession.

PE 453
ADVANCED HEALTH CONCEPTS This course will present advanced concepts in health for the individual interested in Health Education or the Allied Health Professions. Emphasis will be placed on instructional methodology, curriculum planning, and educational evaluation in the health profession.

PE 454
ADVANCED CARE OF THE ATHLETE This course is designed to expand the student’s knowledge of athletic injuries, incorporating hands-on experience. Topics will include current issues in anatomy and physiology; athletic first aid and emergency situations; standard procedure for diagnosis and treatment; conditioning, prehabilitation and rehabilitation; heat stress injuries; nutrition and eating disorders; taping, wrapping and bracing; and other related topics in sports medicine.

PE 455
INTERNSHIP IN PHYSICAL EDUCATION This internship is designed to enrich student understanding of organizational and administrative principles through practical opportunities working with experienced professionals in the field of Sport and Physical Education.

PE 456
Physics

Graduate Course Descriptions □ P, Q & R □ Physics

Physics

PHY  400
CLASSICAL MECHANICS FOR TEACHERS Concepts and materials for teaching mechanics as part of high school physics. Only offered by arrangement. PREREQUISITE(S):Permission of instructor

PHY  401
ELECTRICITY AND MAGNETISM FOR TEACHERS The principles of electricity and magnetism, including electric circuits. This level is appropriate for regular and AP high school Physics teachers. Only offered by arrangement. PREREQUISITE(S):Permission of instructor

PHY  402
ATOMIC AND NUCLEAR PHYSICS FOR TEACHERS This course provides a broad perspective for teachers. It includes atomic, nuclear and some particle physics. Only offered by arrangement. PREREQUISITE(S):Permission of instructor

PHY  403
TOPICS IN PHYSICS TEACHING Selected topics for high school teachers. May be taken more than once. Only offered by arrangement. PREREQUISITE(S):Permission of instructor

PHY  404
OPTICS FOR TEACHERS Geometrical and physical optics from the perspective of high school teaching. Applications to photography and holography. Only offered by arrangement. PREREQUISITE(S):Permission of instructor

PHY  406
VIBRATIONS, WAVES AND SOUND FOR TEACHERS Techniques for teaching high school science including musical acoustics and sound reproduction. Only offered by arrangement. PREREQUISITE(S):Permission of instructor

PHY  410
CHAOS IN PHYSICAL SYSTEMS Motion in phasespace, characteristics of chaotic systems, Lyapunov exponents, stability of equilibria, strange attractors, bifurcations, discrete dynamics, applications to lasers, fluids, and other physical systems.

PHY  411
ELECTRODYNAMICS I Electrostatics and magnetostatics in vacuum and in media; electromagnetic induction; Maxwell's equations; the Poynting vector; electromagnetic wave propagation.

PHY  412
QUANTUM MECHANICS I Schroedinger equation, operators, eigenvalues; series of eigenfunctions; physical interpretation; one- and three-dimensional applications.

PHY  420
ELECTRODYNAMICS II (PREREQUISITE: PHY 411) Further studies of electromagnetic wave propagation; scattering; dispersion; bounded structures and guided waves; electromagnetic radiation, including multipole
scattering; dispersion; bounded structures and guided waves; electromagnetic radiation, including multipole radiations and radiation from systems of radiators. PREREQUISITE(S): PHY 411.

PHY 425
LASER PHYSICS (CROSS-LISTED AS PHY 325) Interaction of radiation and matter, pumping mechanisms for lasers, optical resonators, cw and transient laser behavior, laser types, current topics in optical physics.

PHY 435
NON-EQUILIBRIUM PHYSICS AND SELF-ORGANIZATION [PREREQ(S): PHY 340 OR CONSENT] The spontaneous formation of structure is one of the most interesting phenomenon in nature and arises in fields as diverse as physics, chemistry, biology, management, economics, and sociology. Many self-organizing systems show similarities in the way the structure arises, indicating that there are underlying general principles that govern these systems. This course will investigate these principles. Prerequisite: PHY 340 or consent.

PHY 440
CLASSICAL MECHANICS Variational principles; Lagrangian and Hamiltonian mechanics; small oscillations; canonical transformations; Hamilton-Jacobi theory.

PHY 442
COMPUTATIONAL PHYSICS Contemporary Topics in physics are examined via numerical solutions. Calculations using an interactive approach and graphical representation are used extensively.

PHY 445
STATISTICAL MECHANICS Principles of statistical mechanics; applications to weakly interacting systems such as the classical plasma and Fermi gas; strongly interacting systems; transport theory; fluctuations and irreversible processes, phase transitions.

PHY 450
PHASE TRANSITIONS & CRITICAL PHENOMENON (PREREQ: PHY 340, PHY 445, OR EQUIVALENT) Applications of equilibrium statistical mechanics to the study of phase transitions and critical phenomena. Topics include the Ising model of magnetism, critical phenomena in fluids, mean field theory, Landau-Ginzburg theory, and the renormalization group. Prerequisite: PHY 340, PHY 445, or equivalent.

PHY 454
FOURIER OPTICS Fourier Optics and optical processing of information. Topics include diffraction theory, optical transfer functions and holography. The Fourier Transform and Fast Fourier Transform are used extensively.

PHY 456
FIBER OPTICS (CROSS-LISTED AS PHY 356) (Cross-listed as PHY 356) Solution of Maxwell’s equations for dialectic wave guides, optical communications, nonlinear effect in dialectic wave guides, and current research.

PHY 460
QUANTUM MECHANICS II (PREREQUISITE: PHY 412) Review of basic quantum theory; vector spaces; linear operators; observables; commutators; projection operations; representations; angular momentum theory; systems of identical particles; invariance. PREREQUISTE(S):PHY 412.

PHY 465
NUCLEAR PHYSICS (PREREQUISITE: 412 OR EQUIVALENT) Theoretical and phenomenological approaches to nuclear structure and strong, electromagnetic, and weak interactions of nuclei. Topics of study include the theory of scattering and decay of nuclei, resonances, nuclear models. PREREQUISTE(S):PHY 412 or equivalent.

PHY 466
RADIATION PHYSICS Interactions of X-rays, nuclear radiations, etc. with matter; radiation detectors; dosimetry; shielding; applications to medical physics. Cross-listed with PHY 366.

PHY 475
INTRODUCTION TO COSMOLOGY Provides a foundation to the core concepts of cosmology, with an emphasis on developing physical insight. Discusses recent major developments in cosmology, such as the cosmological constant and accelerating universe, and key future developments, including details of the cosmic microwave background and gravitational wave detection.

PHY 478
TOPICS IN APPLIED PHYSICS This course number is reserved for Individual study at the graduate level. Special
seminars organized from time to time to accommodate the needs of groups of students in specialized subjects of topical interest.

PHY 480
THESIS RESEARCH This course number designates research performed to gather thesis material. Up to two registrations are allowed. No less than four quarter hours; no more than eight quarter hours total credit.

PHY 490
STRUCTURAL PROPERTIES OF MATERIALS Periodicity, symmetry and classification of crystal structure; X-ray diffraction; reciprocal lattice; crystal binding. Debye theory of heat capacity; anharmonic interactions; point defects; surfaces.

PHY 491
ELECTRONIC PROPERTIES OF MATERIALS The free-electron gas model; energy band theory; theory of metals and alloys; transport phenomena; dia- and para-magnetism, ferromagnetism, and antiferromagnetism; superconductivity.

PHY 701
CANDIDACY CONTINUATION [PREREQ(S): INSTRUCTOR PERMISSION] Non-credit. Required of all students who are not registered for regular courses but who occasionally utilize University facilities (computer lab and library) during completion of course requirements and/or research. $40.00 per quarter. Prerequisite(s): instructor permission.

PHY 702
NON-RESIDENCY CANDIDACY CONTINUATION Non-Residency Candidacy Continuation

Polish

Graduate Course Descriptions P, Q & R Polish

Polish

POL 497
SPECIAL TOPICS IN POLISH
See schedule for current offerings. Graduate standing required.

POL 498
FOREIGN STUDY [PREREQ(S): PERMISSION]
Variable credit. Prerequisite(s): permission required. Graduate standing required.

POL 499
INDEPENDENT STUDY [PREREQ(S): PERMISSION OF CHAIR & INSTRUCTOR]
Variable credit. Permission of chair and instructor required. Graduate standing required.

Project Management

Graduate Course Descriptions P, Q & R Project Management

Project Management
PM 430 FUNDAMENTALS OF IT PROJECT MANAGEMENT This course concentrates on monitoring, managing and controlling project resources other than internal staff. Risk management, procurement and contract management, time and cost estimating, controlling and tracking techniques, quality assurance, testing and audit. Students will use MS Project for resource allocation and balancing. NO PREREQUISITE

PM 440 COLLABORATIVE TECHNOLOGY FOR LEADING PROJECTS Study of the process of virtual teaming with emphasis on facilitation of different time project activities and facilitation of same time meetings. Students will learn how small group psychology and group communication theories inform specific behaviors in the design and leadership of meetings. Several meeting types including information briefing, focus group, document writing, decision making, requirements gathering, and teaching/training will be explored. In addition, the course surveys current collaboration technologies and discusses how to select among those technologies usability and fit to purpose of a meeting agenda. DL students may be required to schedule same time sessions with the instructor and other DL students; see current quarter syllabus for more information on this point. PREREQUISITE(S): NONE

PM 535 INFORMATION TECHNOLOGY INVESTMENT FINANCIAL ANALYSIS This course focuses on the application of financial analysis and decision-making approaches to aid information technology investment decisions at the operational, project, tactical and strategic levels. Students will learn how to apply a variety of financial methods -- breakeven analysis, present value analysis, profitability index, and return on investment to various IT investment decisions. The course will also address cost benefit analysis, outsourcing, balanced scorecard, and multi-factor scoring, benchmarking, and IT investment portfolio methods. These techniques will prepare students to manage capital budgets, acquisition of system and application software, hardware, personnel, and professional services at project and system levels as well as enterprise investment portfolio. PREREQUISITE(S): IS 425 or SE 477 or IS 565 or ACCT 500

PM 556 ENTERPRISE PROJECT MANAGEMENT This course covers the effective management of complex large-scale technology based projects as well as the management of multiple IT-oriented projects within an enterprise. This course links the management of technological issues within a business environment including the integration of vendor supplied technologies and internally developed software and databases. The large-scale project topics include software development problems; contracts and procurement; leadership behavior and leading team members; the project support functions and metrics; project estimation techniques; and handling multiple facets of a large project. For managing all IT projects in an enterprise, topics include the establishment and use of an IT Project Management office; the IT project portfolio management methods including strategic alignment; project prioritization; organizational support; project architecture management; project resource management; project knowledge management, and project asset management. PREREQUISITE(S): IS 425 or SE 430 or ECT 455 or HCI 440.

PM 570 ENTERPRISE SYSTEM IMPLEMENTATION This course is targeted towards information systems professionals who are involved in the planning and implementation of large scale, cross-functional enterprise systems. Students will examine the characteristics of technology efforts that change and transform the way people perform their tasks and how the new technology structures the flows of information and decision making using workflow modeling methods. Through case studies and exercises students gain insights into the elements of successful implementations leading to the preparation of a change management plan. Emphasis is placed on developing mechanisms for communicating and training all affected agents. PREREQUISITE(S): IS 425 or MIS 555 or ECT 455 or HCI 440.

PM 577 Project Management Practicum Capstone

Psychology
PSY 402
PERCEPTUAL PROCESSES Analysis of the variables involved in the determination of perception with particular attention to the problems of space, motion, distance, size, form, aftereffects and constancies.

PSY 404
LEARNING AND COGNITIVE PROCESSES Survey of classical and instrumental conditioning, biological constraints, attention, memory, cognition, and practical applications. Major theoretical approaches include stimulus-response, early cognitive theories and information processing theory.

PSY 406
PHYSIOLOGICAL PROCESSES The functional role of neural systems important for the processes of motivation, emotion, sleep, memory, and cognition.

PSY 409

PSY 410
ADVANCED STATISTICS I (CROSS-LISTED AS SOC 450) Graphical methods for data display, analysis of variance, multiple comparisons, multifactor analysis of variance, randomized block, repeated measures, and related designs. PREREQUISITE(S):PSY 340, or one semester of undergraduate statistics.

PSY 411
ADVANCED STATISTICS II (PREREQ(S): PSY 410) Multiple linear regression, analysis of covariance, and logistic regression. PREREQUISITE(S): PSY 410

PSY 412
ADVANCED STATISTICS III (PREREQ(S): PSY 411) Advanced Statistics III PREREQUISITE(S): PSY 411

PSY 413
ANALYSIS OF LONGITUDINAL DATA Analysis of changes and time - dependent data.

PSY 414
CATEGORICAL DATA ANALYSIS Analysis of contingency tables and count data logit, probit and loglinear models.

PSY 416
METHODS IN QUALITATIVE RESEARCH Principles and techniques of research design in behavioral, social and clinical research; questionnaires, interview schedules, rating scales involving multivariable analysis. Application of parametric and nonparametric tests. Application of research findings to professional practice.

PSY 418
MULTIVARIATE STATISTICAL ANALYSIS Multivariate regression, principal component, cluster analysis and multidimensional society. Canonical correlation, multivariate analysis of variance, linear discriminant function analysis.

PSY 419
FACTOR ANALYSIS AND PATH MODELING Theoretical foundations, methods of analysis, and comparison of various factor analytic models. Structural equation and measurement models using the LISREL program.

PSY 420
ADVANCED RESEARCH METHODOLOGY Design and analysis of basic and applied psychological research with an emphasis on statistical software.

PSY 421
ADVANCED EXPERIMENTAL DESIGN None

PSY 422
COMPUTING FOR THE BEHAVIORAL SCIENTIST An introduction to computer programming, web development, and other computer-intensive techniques as applied to behavioral science research.
and other computer-intensive techniques as applied to behavioral science research.

PSY 426
ADVANCED LANGUAGE SEMINAR: PSYCHOLOGY OF BILINGUALISM This course presents an introduction to how bilinguals produce and understand language by examining theoretical constructs and research in psycholinguistics. It also explores developmental and methodological issues in bilingualism research.

PSY 427
SENSORY PROCESSES Sensory Processes

PSY 430
ADVANCED SOCIAL PSYCHOLOGY Advanced study of social psychological methodology, ethics and deception, attitudes, altruism, aggression, and interpersonal processes and attraction.

PSY 432
ATTITUDE ANALYSIS Theory and research in attitude formation and organization, communication and persuasion, resistance to persuasion, and measurement techniques.

PSY 433
SOCIAL JUDGMENT Theory and research in judgment of social stimuli, perceiving and evaluating persons, and social comparison processes.

PSY 434
SMALL GROUP BEHAVIOR Theory and research in goal formation, conformity, power and communication structures, cohesion, and task performance. The emphasis is on the behavior of persons within groups.

PSY 435
PSYCHOLOGY OF INTERPERSONAL RELATIONSHIPS (CROSS-LISTED: PSY 317) Theory and research on selected aspects of close relationships. Cross-listed with PSY 317.

PSY 437
ADVANCED PERSONALITY Critical analysis of research in personality with emphasis on the development and testability of major constructs in contemporary research.

PSY 439
ADVANCED DEVELOPMENTAL PSYCHOLOGY Current research and theories in child development relating to the preschool child, elementary school child, and adolescent. Emphasis on cognitive, language, and social/emotional development.

PSY 440
PSYCHOLOGY OF WORK AND MOTIVATION Current research and theories in organizational psychology relating to motivation, job satisfaction, work attitudes, employee withdrawal, and counterproductivity.

PSY 441
PSYCHOLOGY OF LEADERSHIP Current research and theories in organizational psychology relating to leadership, supervision, job performance, and managerial training. Emphasis is on theoretical development and empirical evaluation of constructs in contemporary research.

PSY 442
PERSONNEL PSYCHOLOGY Major issues in the Human Resource area. Topics include job analysis, job evaluation, pay equity, benefits, incentive systems, and personnel selection methods, focusing on recruitment, biodata, references, testing, interviews.

PSY 443
PSYCHOLOGY OF DESIGN (CROSS-LISTED AS PSY 383) (Cross-listed as PSY 383) This course helps students understand how theoretical principles of psychology can be applied to the design of human-centered organizations, environments and technologies. Prior familiarity with psychology and experimental design is strongly recommended.

PSY 444
PERFORMANCE APPRAISAL Theory of criterion development, the evaluation process, and measurement in
performance appraisal. Emphasis on design and development.

PSY 445
ADVANCED TRAINING AND DEVELOPMENT IN ORGANIZATIONS In-depth exposure to issues related to training in industry and other organizations. Such topics as needs assessment, training program design, program evaluation, and relevant social and economic issues will be covered.

PSY 446
PSYCHOLOGICAL THEORIES OF ORGANIZATIONS Theory and research in the psychology of organizations relating to organizational design, analysis, systems, processes and change.

PSY 447
ORGANIZATIONAL CONSULTATION (PREREQ(S): PSY 446) Applies behavioral science and managerial theories and methodologies to organizational consultation and change processes. Prerequisite(s): PSY 446

PSY 448
CONCEPTS, METHODS, AND ETHICS FOR INDUSTRIAL/ORGANIZATIONAL PSYCHOLOGY The major concepts and techniques relevant to I/O psychology. Topics include psychometrics, regression, validity generalization, utility, legal issues, affirmative action, and ethics.

PSY 450
PSYCHOLOGICAL MEASUREMENT Logical and mathematical principles underlying test construction with emphasis on evaluating the reliability and validity of scores.

PSY 451
APPLIED STATISTICAL PREDICTION Applications of statistics and psychological measurement to the problems of predicting human performance. Several computer programs will be used to analyze data.

PSY 454
BEHAVIOR MODIFICATION Analysis of principles, practices and research related to learning theory and the modification of human behavior.

PSY 469
EMOTIONS AND EMOTIONAL DEVELOPMENT Emotions And Emotional Development

PSY 473

PSY 481
INDIVIDUAL INTELLIGENCE TESTING I (MATERIALS FEE) Theories of intelligence and cognitive development. Introduction to the administration of verbal and various nonverbal tests including the Stanford Binet, Wechsler Intelligence Scale for Children and Wechsler Adult Intelligence Scale and the clinical use of these instruments. Materials fee $10.00.

PSY 482
PERSONALITY ASSESSMENT Administration and scoring of the Rorschach and Thematic Aperception Test and other tests. Evaluation of tests and related areas of research and development.

PSY 483
ADVANCED PSYCHODIAGNOSTICS Advanced study of projective techniques and other assessment methods, with emphasis on analysis, interpretation and integration of all pertinent clinical data, and report writing.

PSY 484
BEHAVIORAL ASSESSMENT Behavioral observation and recording. Self-report measures. Physiological measurement. Evaluation of behavioral measures and areas of research.

PSY 485
NEUROPSYCHOLOGICAL TESTING Introduction to theory and assessment techniques related to adult and child neurological functioning.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PSY 486</td>
<td>ADVANCED PSYCHOPATHOLOGY</td>
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<tr>
<td></td>
<td>Review of the major diagnostic categories as outlined by the current Diagnostic and Statistical Manual. Current issues in psychopathology and related research are reviewed.</td>
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<tr>
<td>PSY 487</td>
<td>PSYCHOPATHOLOGY OF THE CHILD</td>
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<tr>
<td></td>
<td>Introduction to the many categories of psychopathology affecting children and adolescents. Emphasis on the developmental and environmental contexts.</td>
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<tr>
<td>PSY 488</td>
<td>PRINCIPLES OF PSYCHOTHERAPY</td>
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<tr>
<td></td>
<td>Analysis of theoretical approaches to psychotherapy.</td>
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<tr>
<td>PSY 489</td>
<td>GROUP PSYCHOTHERAPY</td>
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<tr>
<td></td>
<td>Principles, theories and techniques of group psychotherapy. Problems of selection of group members and evaluation of progress.</td>
</tr>
<tr>
<td>PSY 491</td>
<td>TREATMENT METHODS WITH CHILDREN</td>
</tr>
<tr>
<td></td>
<td>Consideration of a variety of treatment approaches used to help alleviate the psychological problems of children.</td>
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<tr>
<td>PSY 492</td>
<td>PRINCIPLES OF CONSULTATION</td>
</tr>
<tr>
<td></td>
<td>The principles and dynamics involved in the various types of consultative relationships. Techniques of consultation with parents, teachers, agencies, physicians and others in regard to problems and deviancy, methods of management and treatment.</td>
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<tr>
<td>PSY 493</td>
<td>PRINCIPLES OF COMMUNITY PSYCHOLOGY</td>
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<tr>
<td></td>
<td>Advanced course which examines alternative service delivery models.</td>
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<tr>
<td>PSY 495</td>
<td>EVALUATION AND RESEARCH IN COMMUNITY MENTAL HEALTH</td>
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<td></td>
<td>Examination of methodological approaches to assessing program and intervention effectiveness related to community psychology interventions.</td>
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<tr>
<td>PSY 500</td>
<td>PROFESSIONAL ETHICS</td>
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<tr>
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<td>Introduction to ethical issues in the field of clinical psychology. Two quarter hours.</td>
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<tr>
<td>PSY 501</td>
<td>STATISTICAL APPLICATIONS SEMINAR</td>
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<td></td>
<td>Introduction to advanced applications of statistical packages for data analysis, data management, and simulation.</td>
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<tr>
<td>PSY 510</td>
<td>BEHAVIORAL MEDICINE</td>
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<tr>
<td></td>
<td>Behavioral medicine approaches are introduced.</td>
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<tr>
<td>PSY 511</td>
<td>HEALTH PSYCHOLOGY</td>
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<tr>
<td></td>
<td>A survey of the psychological factors involved in health and illness. Also explores the psychological issues in prevention of illness, and psychological considerations in treatment.</td>
</tr>
<tr>
<td>PSY 520</td>
<td>PRINCIPLES OF HUMAN DIVERSITY</td>
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<td></td>
<td>Considerations related to minority status and issues specific to diagnostics and interventions with minority populations.</td>
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<tr>
<td>PSY 521</td>
<td>PSYCHOLOGY OF THE AFRICAN-AMERICAN CHILD (CROSS-LISTED AS PSY 346)</td>
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<tr>
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<td>Development and socialization of African-American child from infancy to adolescence. Emphasis on psychological and cultural factors which influence these processes. Understanding the child, family, language and IQ, education and learning styles, and cultural identity are all emphasized. Cross-listed with PSY 346.</td>
</tr>
<tr>
<td>PSY 550</td>
<td>SEMINAR IN TEACHING PSYCHOLOGY</td>
</tr>
<tr>
<td></td>
<td>Non-Credit.</td>
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<tr>
<td>PSY 551</td>
<td>SEMINAR IN EXPERIMENTAL PSYCHOLOGY</td>
</tr>
<tr>
<td></td>
<td>None</td>
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<tr>
<td>PSY 552</td>
<td></td>
</tr>
</tbody>
</table>
SEMILAR IN NEUROPSYCHOLOGY None

PSY 553
SEMILAR IN PERSONALITY RESEARCH None

PSY 554
SEMILAR IN COMPARATIVE PSYCHOLOGY (CROSS-LISTED AS PSY 378) Patterns of behavior shown by various animal species. Cross-listed with PSY 378.

PSY 555
SOCIAL AND EMOTIONAL DEVELOPMENT (CROSS-LISTED AS PSY 370) Focus on development of emotions, social relationships, and social interaction. Both theoretical perspectives and research findings are presented and analyzed. Topics covered may include: primary emotions and their development, nonverbal communication of emotions, socialization within the family, friendship and peer relations, aggression, moral development, sex role development, and attachment. Cross-listed with PSY 370.

PSY 556
SEMILAR IN SOCIAL PSYCHOLOGY None

PSY 557
SEMILAR IN LEARNING AND COGNITIVE PROCESSES Seminar in current issues in cognitive psychology.

PSY 558
SEMILAR IN ADVANCED STATISTICS (PREREQ(S): PSY 411 AND 420) PREREQUISITE(S): PSY 411 and PSY 420.

PSY 559
SEMILAR IN INDUSTRIAL/ORGANIZATIONAL PSYCHOLOGY [PREREQ(S): PSY 448 OR CONSENT] Four quarter hours. Prerequisite(s): PSY 448 or consent.

PSY 560
SOCIAL COGNITION (CROSS-LISTED AS PSY 348) Theory and research dealing with the major aspects of social cognition and mental control, including social perception, stereotyping, memory and affect. Cross-listed with PSY 348.

PSY 561
ADVANCED PSYCHOLOGY OF WOMEN (CROSS-LISTED AS MLS 478/WMS 470) A review of research and theory on women, including sexist biases in traditional research, feminist methodology, pedagogy and therapy, violence against women, gender differences in development, relationships, sexuality, and the interplay of gender, race and sexual orientation. Cross-listed with MLS 478 and WMS 470.

PSY 562
SEMILAR IN FAMILY THERAPY A review of systems theory and the assessment and treatment of families. Four quarter hours.

PSY 563
MENTAL IMAGERY (CROSS-LISTED AS PSY 362) Theory, research and practical applications of mental imagery are considered in lecture/discussion/student-report format. Variety of imagery techniques will be reviewed which have been found useful in research and practice. Special attention devoted to the differences between subjective approaches (consciousness and vividness ratings) versus objective approaches (memory measures) of studying imagery. Cross-listed with PSY 362.

PSY 564
SEMILAR IN CLINICAL RESEARCH (PREREQ(S): PSY 488) PREREQUISITE(S): PSY 488.

PSY 565
ADVANCED CLINICAL SEMINAR None

PSY 566
SEMILAR IN PSYCHOPATHOLOGY None

PSY 567
SPECIAL TOPICS IN COMMUNITY PSYCHOLOGY Explores topics of current interest in the area of Community Psychology and related fields for advanced graduate students, with emphases on theory, research and
PSY 568
SEMINAR IN COMMUNITY PSYCHOLOGY Analysis of theories of community and human behaviors from the standpoint of general systems principles. Four quarter hours.

PSY 569
SEMINAR IN PROGRAM EVALUATION Analysis of major research programs dealing with social and mental health problems with emphasis on epidemiological and socio-clinical research methods. Four quarter hours.

PSY 570
SEMINAR IN PSYCHOTHERAPY RESEARCH None

PSY 572
PSYCHOBIOLOGY OF SOCIAL COGNITION Explores social cognition in the frame of evolutionary, neorophysiological, and developmental biology. Comparison of human with other animal social-cognitive characteristics will be examined. Neuropsychological data and developmental psychobiology will be studied.

PSY 574
PRE-PRACTICUM IN CLINICAL PSYCHOLOGY Introduction to practica duties. May be repeated three times. No Credit.

PSY 577
PRACTICUM IN CLINICAL ASSESSMENT Supervised experience in intake interviewing, psychological evaluation, and case conference presentation in a clinic, hospital or community agency setting. Zero credit hours.

PSY 578
PRACTICUM IN CLINICAL PSYCHOLOGY Supervised experience in diagnostic assessment, intervention planning, psychotherapy and report writing through varied assignments to campus or community agencies. Zero credit hours.

PSY 579
PRACTICUM IN CHILD CLINICAL PROCEDURES Supervised practice in the diagnosis and treatment process of the problems of children and adolescents. May be repeated twice. Zero credit hours.

PSY 582
ADVANCED PRACTICUM-CLINICAL PSYCHOLOGY Zero credit hours.

PSY 583
PRACTICUM IN COMMUNITY MENTAL HEALTH Zero credit hours.

PSY 584
PRACTICUM IN SPECIAL AREAS IN PSYCHOLOGY Zero credit hours.

PSY 585
FIELD WORK IN CLINICAL PSYCHOLOGY An applied experience which integrates skills of consultation, program development, advocacy, and program evaluation. Four quarter hours PREREQUISITE(S): consent of instructor.

PSY 586
PRACTICUM IN APPLIED INDUSTRIAL/ORGANIZATIONAL PSYCHOLOGY Supervised experience in the application of I/O Psychology and technical report writing. Four quarter hours

PSY 587
PRACTICUM IN ADVANCED RESEARCH IN INDUSTRIAL/ORGANIZATIONAL PSYCHOLOGY Supervised experience in I/O research and the preparation of research results for publication. Four quarter hours

PSY 588
TOPICS IN EXPERIMENTAL PSYCHOLOGY I Consideration of topics of current interest to the faculty and advanced graduate students. Introduction to research methods and data analysis. Four quarter hours

PSY 589
TOPICS IN EXPERIMENTAL PSYCHOLOGY II Topics in experimental psychology.
PSY 590
THESIS SEMINAR Non-Credit.

PSY 591
COLLOQUIUM IN INDUSTRIAL/ORGANIZATIONAL PSYCHOLOGY Required of all I/O students. Register in Fall term; continues throughout the year. Presentations on research and other topics by students, faculty, and invited speakers. Non-credit

PSY 592

PSY 594
PSYCHOLOGICAL RESEARCH A course involving intensive readings in contemporary psychological literature. (Arranged by prior consultation with the chair). One to four quarter hours

PSY 595
COLLOQUIUM Required of all graduate students each quarter until graduation. Lectures by psychologists and members of the faculty. Non-credit

PSY 596
INTERNERSHIP IN CLINICAL PSYCHOLOGY Arranged with consent of director of clinical training. Non-credit.

PSY 597
MASTER’S THESIS RESEARCH Original investigation of a specific research problem. Four hours required. One to four quarter hours.

PSY 598
DISSERTATION RESEARCH SEMINAR Seminar for doctoral candidates working on their dissertation. Students will develop their proposals or write their results and discussion sections, depending on status of their dissertation research. Students will also review and critique work of other students. Permission of instructor required. Zero credit hours.

PSY 599
DISSERTATION RESEARCH Twelve hours total required. One to twelve quarter hours.

PSY 610
GRADUATE STATISTICS GRADUATE STATISTICS

PSY 620
GRADUATE RESEARCH METHODS None

PSY 634
ADOLESCENT DEVELOPMENT Focus on normal processes in adolescent development as well as risk factors for maladaptive development.

PSY 639
ADVANCED DEVELOPMENTAL PSYCHOLOGY Focus on major theories and research in child development.

PSY 645
ORGANIZATIONAL DEVELOPMENT None

PSY 646
NEEDS ANALYSIS None

PSY 647
ORGANIZATIONAL CONSULTING: DIAGNOSTICS None

PSY 648
ORGANIZATIONAL POLITICS AND SAVVY None
PSY 649
TESTING: MEASUREMENT, APPLICATION, AND LEGAL CONSIDERATIONS None

PSY 650
CREATIVITY AND DECISION MAKING None

PSY 653
ABNORMAL PSYCHOLOGY Focus on the primary psychological diagnoses common today.

PSY 663
ALCOHOLISM, DRUG ADDICTION, AND RECOVERY Research and theory on alcoholism, drug addiction, and recovery are the focus of this course.

PSY 667
BEHAVIOR ANALYSIS: MEASUREMENT BEHAVIOR ANALYSIS: MEASUREMENT

PSY 668
BEHAVIOR ANALYSIS: METHODS OF CHANGE BEHAVIOR ANALYSIS: METHODS OF CHANGE

PSY 669
APPLICATIONS OF BEHAVIOR ANALYSIS Applications Of Behavior Analysis

PSY 678
CHILD ABUSE AND NEGLECT (PREREQ(S): GRADUATE STANDING & INSTRUCTOR CONSENT) This course surveys the causes, consequences, and contextual factors associated with child maltreatment (abuse and neglect) and interventions for children and families. The course considers maltreatment within an ecological context and works to build sensitivity to diverse families and cultural patterns. It is designed for graduate students with some prior coursework or experience in child psychology, mental health, or child welfare. PREREQUISITE(S): Graduate Standing and Instructor Consent

PSY 680

PSY 701
CANDIDACY CONTINUATION (PREREQUISITE: ADMISSION TO CANDIDACY) Students admitted to candidacy for the doctoral degree who have completed all course and dissertation registration requirements are required to be registered each quarter of the academic year until the dissertation and final examination have been completed. Non-credit. $40.00 per quarter. PREREQUISITE(S): admission to candidacy.

PSY 702
NON-RESIDENT CANDIDACY CONTINUATION Non-Resident Candidacy Continuation

Public Relations & Advertising

Graduate Course Descriptions □ P, Q & R □ Public Relations & Advertising

Public Relations & Advertisement

PRAD 500
HISTORY OF PUBLIC RELATIONS AND ADVERTISING This course offers students a survey of significant historical developments in the rise of American public relations and advertising, including the individuals and the social, cultural and political trends that have shaped his fields in the nineteenth and twentieth centuries. Students will consider the relationship between current professional practice and the evolution of modern public relations and advertising techniques. Formerly CMN 500
PRAD 505
CRITICAL PERSPECTIVES ON PUBLIC RELATIONS AND ADVERTISING (PREREQ: PRAD students or consent) This course examines the ever-increasing influence of public relations and advertising in our society, highlighting issues of power and social responsibility. Students are asked to think critically about the societal effects of public relations and advertising and their roles in the production and maintenance of public opinion. Future practitioners consider the potentially adversarial relationship that exists between public relations and advertising and the media in societies based on a free press. Formerly CMN 505

PRAD 510
SPEECH WRITING AND PRESENTATION The course will allow students to gain experience writing and delivering speeches and making professional presentations. An emphasis will be placed on the role of speeches and speechwriters and the responsibilities associated with those involved in such an integral part of a democratic society. The multiple uses and value of speeches and presentations as public relations tools will also be addressed. Formerly CMN 510

PRAD 514
CONTEMPORARY ISSUES IN PUBLIC RELATIONS AND ADVERTISING A seminar devoted to the reading and discussion of contemporary academic and popular works dealing with emerging issues in the fields of public relations and advertising. Students gain advanced knowledge of new industry trends and explore issues central to current professional debates. Formerly CMN 514

PRAD 515
PUBLIC RELATIONS WRITING (PREREQUISITE(S): CMN 555) The goal of this course is to help students develop the professional writing skills needed for success in public relations. Students analyze the process of strategic public relations planning and explore the communication techniques used to establish positive relationships with organizational constituents. They apply what they have learned by developing and presenting a variety of public relations materials, such as program plans, news releases, magazine/report/newsletter copy, video scripts, web copy and speeches. Upon the successful completion of this course, students will have a professional portfolio of public relations writing samples. (Prerequisite: PRAD 555). Formerly CMN 515

PRAD 520
PUBLIC RELATIONS THEORY (PREREQ(S): CMN 555) This course is designed to orient students to the theories that dominate Public relations scholarship, as well as the prevailing theories applied in practice. Students will review the historical evolution of various theories, critiques that have contributed to theory development, and the current status of various theories in the field. (Prerequisite: PRAD 555). Formerly CMN 520

PRAD 530
PUBLIC RELATIONS AND ADVERTISING MANAGEMENT (PREREQ: CMN 555 AND CMN 553) This course focuses on the application of management principles and practices to the effective development of public relations and advertising plans, programs and campaigns. The course examines management practices in organizational and firm settings and considers issues and practices related to planning, budgeting, new business development and account management. (Prerequisites: PRAD 555 and PRAD 553). Formerly CMN 530

PRAD 535
HEALTH COMMUNICATION This course will help students understand the organizational impact of health policy in America and prepare students to assume roles in communication management positions in the United States health care industry. Students will explore current issues in health policy such as the problem of the uninsured, the rising cost of health care, and the politics of health. Each student will be responsible for focusing on a particular aspect of health policy and developing a report on the topic. Formerly CMN 535

PRAD 540
CRISIS COMMUNICATION MANAGEMENT This course examines institutional crisis communication from a management perspective. Emphasis is on crisis response strategies and organizational approaches for preventing and managing crisis events. Students develop case studies of contemporary crises and participate in simulations designed to develop professional expertise and practical skills in crisis communication management. Formerly CMN 540

PRAD 550
INTEGRATIVE COMMUNICATION CAMPAIGNS The course presents a formal model for the implementation of integrated marketing communication plans across a number of communication functional areas. The course stresses the importance of campaign consistency, expression of unique audience insights, creative leverage, and the establishment of zero-based execution parameters. Case studies are examined as models for
understanding elements of successful programs and for the development of team projects. Formerly CMN 550

PRAD 551
ADVERTISING AND COPYWRITING This course examines the creative, media planning and account executive functions of the advertising field. Special emphasis will be devoted to copywriting. To provide an intensive workshop experience, students will be divided into art director/copywriter teams to develop a campaign for a non-profit organization. Lectures, class discussions and guest speakers will supplement the hands-on experience. Students will complete the course with general advertising and copywriting skills that are broadly applicable to many corporate communication contexts. (Prerequisite: PRAD 553). Formerly CMN 551

PRAD 552
STRATEGIC COMMUNICATION This course explores the process by which communicators attempt to accomplish their goals. In particular, this course covers theories of persuasion, strategic message design (creating messages that take into account multiple audiences and goals), and how the inferential process influences decision-making. Formerly CMN 552.

PRAD 553
ADVERTISING This foundational course examines the theories, principles, applications and standards of advertising in multiple contexts, both from the perspectives of the practitioner and the consumer. Formerly CMN 553

PRAD 554
CREATIVE PROCESSES The course focuses on creative processes critical in integrated marketing communication. Overall, the course is designed to help participants think more creatively. Readings include research and theoretical studies of creative processes and institutional practices, as well as more personal essays by representative figures from several different creative venues. Cases studies are the basis for fashioning directed creative responses, discussions, in-class activities and final projects. Formerly CMN 554

PRAD 555
PUBLIC RELATIONS This course involves the study of the theory, history, practice and future of public relations in a comprehensive way. It is a course designed to allow public relations students to understand the breadth of the field and to investigate specific areas of public relations (i.e., political, medical, financial, government, corporate, education, etc.). It will also cover the operations and objectives PR practice from both the corporate and non-profit sectors. Formerly CMN 555

PRAD 556
STRATEGIC PLANNING IN PUBLIC RELATIONS Students will learn how to analyze an organization?s initial situation, prior to public relations programs; how to formulate strategies and objectives for proper pre-planning; and how to develop a rich and measurable PR plan. Budgets, tactics and timelines will also be discussed and required as an aspect of the final PR plan project. Formerly CMN 556

PRAD 557
ADVERTISING COMMUNICATION STRATEGY The course examines the development of advertising communication strategy within the context of an organization?s overall marketing objectives. The course emphasizes harmonization of strategies for internal and external audiences and for support of organizational vision. Case studies define the relationship of marketing communication to product and service innovation, pricing and distribution. Particular attention is given to strategies which are imaginative and cost-effective. Formerly CMN 557

PRAD 560
POLITICAL PUBLIC RELATIONS Political Public Relations focuses on the development and delivery of strategic messages by political parties, candidates and officeholders in American politics. Students will be responsible for researching, discussing, and evaluating the effectiveness of these messages. Special emphasis will be placed on the role of the spokesperson in a political campaign and/or serving as a spokesperson for an elected official. Formerly CMN 560

PRAD 562
MEDIA RELATIONS: SPECIAL TOPICS Explores the communication between reporters and organizational spokespeople. Topics include goals of reporters and spokespeople during the transmission of information, interpretation of the various types of corporate media for reporters, techniques for corporate spokespeople for giving effective interviews. Case studies will be analyzed. Formerly CMN 562.

PRAD 575
COMMUNICATION LAW AND ETHICS This course covers the aspects of communication law and ethics relevant to communication professionals. Legal topics include First Amendment concepts, libel, privacy, copyright, freedom of information, and regulation of advertising. The ethical component focuses on the professional responsibilities of practitioners in communication fields with special emphasis on public relations and advertising. Formerly CMN 575

PRAD 585
RESEARCH METHODS FOR THE COMMUNICATION PROFESSIONAL This course covers core issues involved in the collection and analysis of information to be used in decision-making. Topics covered include the retrieval of archival data, survey design, focus group interviewing, sampling techniques, techniques for analyzing data, and campaign evaluation. Formerly CMN 585

PRAD 595
SPECIAL TOPICS IN PUBLIC RELATIONS & ADVERTISING (PROCESS) This course examines a broad range of topics related to public relations and advertising processes. The course may address such topics as issues management, consumer behavior, relationship management, strategic planning and program development, or integrated communication campaigns. Formerly CMN 595.

PRAD 596
SPECIAL TOPICS IN PUBLIC RELATIONS/ADVERTISING (APPLICATION) This course examines a broad range of application topics in public relations and advertising. Courses may address the uses and impact of new technologies, publication design, proposal writing, Web-based media writing, computer graphics, video production, creativity and other topics. Other courses may focus on specific industry applications in such areas as education, sports and entertainment, arts and culture, health and science, financial or technology. Formerly CMN 596.

PRAD 597
COLLOQUIUM ON PUBLIC RELATIONS AND ADVERTISING This course brings students together with professionals in public relations and advertising to illustrate the diverse nature of work in these fields. Speakers from both corporate and non-profit organizations will be invited to share their professional experiences and to discuss the knowledge competencies and skills required to succeed in these fields. Formerly CMN 597.

Russian

Graduate Course Descriptions □ P, Q & R □ Russian

Russian

RUS 497
SPECIAL TOPICS IN RUSSIAN
See schedule for current offerings. Graduate standing required.

RUS 498
FOREIGN STUDY [PREREQ(S): PERMISSION]
Variable credit. Prerequisite(s): permission required. Graduate standing required.

RUS 499
INDEPENDENT STUDY [PREREQ(S): PERMISSION OF CHAIR & INSTRUCTOR]
Variable credit. Permission of chair and instructor required. Graduate standing required.
SCG 400
EDUCATIONAL RESEARCH DESIGN & STATISTICS

SCG 401
ADVANCED DEVELOPMENTAL PSYCHOLOGY Current research and theories in human development relating to motivation, personality, learning and socialization. Case studies and an analysis of various developmental problems.

SCG 402
PSYCHOLOGY OF LEARNING Study of the learning-teaching process with specific emphasis on the person as a learner, human capacity and potential, learning theories and materials, motivation, concept formation, and behavior.

SCG 403
HUMAN DEVELOPMENT AND LEARNING: ELEMENTARY This course will focus on the developmental processes of school-age children, kindergarten through middle school, by beginning with the study of the young child's social, emotional, cognitive, and physical growth and change. The theoretical and observational study of child development will be framed by an examination of culture, gender, and socio-economic factors as they inform assumptions about normative processes. The relationship between development and learning in a social context will be examined with particular attention to children's developing concepts in math, science, and language arts. Attention will also be given to the role of teachers and schools and other institutions in fostering the healthy development and learning of young people.

SCG 404
HUMAN DEVELOPMENT AND LEARNING: THE EARLY YEARS (COREQUISITE(S): T&L 400) This course will focus on the developmental process of children from birth to age 8 by beginning with the study of the young child's social, emotional, cognitive and physical growth and change. The theoretical and observational study of child development will be framed by an examination of culture, gender, and socio-economic factors as they inform assumptions about normative processes. The relationship between development and learning in a social context will be examined with particular attention to children's developing cognitive concepts. Attention will also be given to the role of teachers, schools, and other institutions in fostering the healthy development and learning of young children. COREQUISITE(S): T&L 400.

SCG 405
HISTORY AND PHILOSOPHY OF BILINGUAL EDUCATION

SCG 406
HUMAN DEVELOPMENT AND LEARNING: SECONDARY This course focuses on the multiple factors that contribute to the period of adolescence, bridging childhood and adulthood. Particular attention is given to the intrapsychic, interpersonal, biological, and socio-cultural processes that are mediated by the meanings that youth give to their identity vis a vis rac, class, and gender formations within the broader society. Students will engage in interdisciplinary study of theories to examine the implications for teaching and learning processes and the role of educational institutions in fostering the healthy development of youth in society. Forms of inquiry will include students' examination of their own lives and assumptions, critique of theory, and observations of young people in a variety of contexts.

SCG 407
NON-DISCRIMINATORY TESTS-SOMPA SYSTEM Administration and interpretation of diagnostic test using a pluralistic model to make testing procedures more responsive to cultural pluralism. (Case study approach).

SCG 408
EDUCATION AND SOCIETY A study of social forces that impinge upon the educational enterprise and analysis
of the relationship to major social problems in urban education with emphasis on their social, economic, political, historical and philosophical dimensions.

SCG 409
SOCIOLOGY OF EDUCATION This course focuses on the relationship between school structures and culture, social relations of race, ethnicity, class, and gender, and ideologies organizing education in the United States. Students will explore a range of theories in the sociology of education that explore linkages between school structures and processes and broader social forces. Readings may examine the political economy of schooling, inequalities in educational practices, and student and teacher identities shaped by schools and the larger society.

SCG 410
INTRODUCTION TO RESEARCH: PURPOSES, ISSUES, AND METHODOLOGIES (formerly CUG 400) This course will examine the basic questions, issues and theoretical frameworks central to the purpose, conceptualization, conduct, writing, reading and the use of educational research as a means for informing educational theory, practice and policy. Students will be exposed to the multiple frameworks which inform education research, the various methodologies employed in collecting and analyzing data and will examine the advantages, limitations and values implicit in conducting and evaluating research.

SCG 411
PHILOSOPHY OF EDUCATION This course examines the relationship of education to the moral and ethical dilemmas or predicaments of the human condition. It will entail issues related to the nature of education's responsiveness, or lack there of, to the concerns of the human condition: for example, human alienation, suffering, success and failure, caring, freedom, responsibility, liberation and agency. Special attention will be given to how these concerns influences or have social, cultural and political implications for how teachers address them within the teaching and learning process.

SCG 419
FIELD EXPERIENCE: BRITISH INFANT SCHOOLS

SCG 439
PHILOSOPHY AND PSYCHOLOGY OF YOUTH AND MIDDLE LEVEL EDUCATION This course examines foundational and contemporary theories of youth and adolescent development. It considers how these theoretical ideas relate to contemporary questions of youth and middle level education. The course explores the historical invention of adolescence, changing ideas about the meaning of childhood, as well as some of the broader social, economic, political, and cultural implications of these changing ideas. This course seeks to develop in prospective educators a broader capacity to theorize about youth and schooling, and, hence, to act critically and reflectively in multiple contexts in which youth learn.

SCG 450
DYNAMICS OF AFRICAN-AMERICAN CULTURE (CROSS-LISTED AS SOC 490) (Cross-listed as SOC 490) This course is intended for those interested in cultural and human relations in order that they may examine the contributions of the black person to American Culture; gain a functional understanding of the social, economic and political development of the black person on America itself.

SCG 461
USE OF TESTS IN APPRAISAL & DEVELOPMENT Detailed analysis of intelligence, aptitude, personality and achievements tests used with groups and individuals. The course is intended to familiarize students with various appraisal procedures and their utilization. Attention is given to the development of the institutional testing program.

SCG 527
COMPARATIVE EDUCATION Studies of school systems outside the United States, their methods, curriculum and achievements.

SCG 588
INDEPENDENT STUDY IN SOCIAL AND CULTURAL FOUNDATIONS IN EDUCATION Independent Study in Social and Cultural Foundations in Education. PREREQUISITE: Permission of instructor, program chair and associate dean.

SCG 600
REGISTERED STUDENT IN GOOD STANDING (0 credit) This registration is required of all students who are not enrolled in a course but are completing course requirements and/or research. It provides access to University
facilities. $50 per quarter. Non-Credit Course.

SCG 602
THE IRISH EDUCATIONAL SYSTEM The Irish Educational System

SCG 603
PROSEMINAR: CULTURE AND EDUCATION This course focuses on the relationship between education, pedagogy, and theories of culture framed by a concern for social justice. Topics may include the pedagogical and political dimensions of popular culture, questions of knowledge production, the relationship between knowledge and power of the political economy of culture production.

SCG 604
PROSEMINAR: IDENTITY CONSTRUCTIONS AND NEGOTIATIONS This course examines identity construction in educational contexts. Drawing on theoretical frameworks in the sociology of education, postmodernist, feminist and critical theories of education, and cultural studies literature, this course will explore identity as complex and multifaceted. It explores relations of class, race, ethnicity, gender, and sexuality and the implications of sociality for contemporary education.

SCG 605
CULTURAL PLURALISM AND THE SCHOOLS: HISTORICAL/SOCIOLOGICAL FOUNDATIONS Cultural Pluralism And The Schools: Historical/Sociological Foundations

SCG 606
REVIEW OF LITERATURE This paper will give students the opportunity to develop and demonstrate written competence in a subfield of their disciplines and to enhance life-long learning. Specifically, they will broaden their knowledge base and inform themselves about a topic, issue, theory, etc., reviewing and synthesizing existing literature. To do so, students will need a variety of bibliographic skills including searching data bases. In other words, students will need to be able to ask and answer such questions as "What is known about? What are major issues and themes?"

SCG 607
INTEGRATIVE PAPER Students will observe and/or participate in the reciprocal interaction of theory and practice, by investigating actual practice in the field as it relates to theory. This might take the form of investigating how a particular theory is applied in the field, developing a practical application of a theory, or, conversely, developing/refining a theory based on investigations made in the field. In other words, as graduates encounter new theories and practices they will need to be able to investigate and evaluate them, asking and answering questions about "how theories work."

SCG 608
PROSEMINAR: IDEOLOGY, POWER AND POLITICS This course examines how power operates pedagogically and how domination and resistance get shaped in education. It considers power relations in society and how these power relations enter into educational discourse and practice. It also explores ways in which power produces various educational practices and ways in which power gets psychically configured. Students will examine major theories of power, analyze race, ethnicity, gender, class and sexuality as systems of power and consider the educational implications of such an analysis.

SCG 610
INTRODUCTION TO RESEARCH METHODS (Special section of SCG 410, Introduction to Research: Purposes, Issues and Methodologies.) This course will examine the basic questions, issues and theoretical frameworks central to the purpose, conceptualization, conduct, writing, reading and the use of educational research as a means for informing educational theory, practice and policy. Students will be exposed to the multiple frameworks which inform educational research, the various methodoogies employed in collecting and analyzing data and will examine the advantages, limitations and values implicit in conducting and evaluating research. Students will also begin exploring possible thesis topics as they begin defining their particular research purpose, methodology and issues.

SCG 611
PROSEMINAR: PHILOSOPHICAL STUDIES IN EDUCATION AND CULTURE Examines both traditional philosophical questions in education from such perspectives as Africana, feminist, Latino/Hispanic thought and distinctively Africana, feminist, and Latino/Hispanic issues in a philosophical way. Some of the perspectives are, for example, the necessary conditions of a humanistic education, the relation between theory and practice, the relationship between individual and institutional/society, the role of education in the struggle for social justice, the role of aesthetics in human development and projects of political emancipation, the dialectics of
history and experience in the development of liberatory ideas, and the moral and ethical dimensions of education.

SCG 635
ADVANCED QUALITATIVE RESEARCH METHODOLOGIES This course extends the fundamental principles of educational research first introduced in SCG 610. It provides students with theoretical and practical preparation in conceptual issues in qualitative research and research design. Students will explore a variety of methodological approaches to interpretive inquiry in social science research, research design, methods of data collection, research ethics, and critical analysis. This course will prepare students to undertake the capstone master's thesis requirement.

SCG 636
THESIS RESEARCH A student writing a thesis registers for this course for four quarter hours of credit. Where the thesis research and the writing of the thesis itself are prolonged beyond the usual time, the program advisor may require the student to register for additional credit.

SCG 701
PHILOSOPHY OF ETHICS IN EDUCATION This course is a philosophical investigation into the structure and meaning of ethics within education. Education, a condition for self-formation and self-other relations, is explored as a site of ethical inquiry. It is within this framework that education, which involves learning, teaching, response, and communication, is posed as a condition of ethical possibility and not merely as the vehicle through which a certain ethics gets carried out. Primary and secondary philosophical and non-philosophical literature and authors within and outside of philosophy of education will be used to study these issues.

SCG 711
CULTURE, POWER AND EDUCATION The purpose of this course is to facilitate the development of a critical understanding of the larger concept of culture within the notion of multiculturalism. This begins by recognizing that educational institutions such as schools and universities are cultural institutions engaged in the making of culture. While the focus of multiculturalism is about theorizing difference in relation to the particular cultural processes that go on in schools and universities, its focus does not address how educational institutions are shaped by broader cultural dynamics that are outside of the immediate context of educational institutions. It is in this context that doctoral students will examine how cultural processes are intimately connected with social relations, especially with class relations, with gender and ethnic divisions, and with the racial restructuring of social relations. They will also explore how culture involves power, which serves to produce inequalities in the abilities of individuals and social groups to define and realize their needs. In addition, culture will be analyzed as a site of social difference and struggle. The primary focus of the course will be to explore how the larger political economy, popular culture and politics of a society affect the dynamics of how culture is constructed within social life. Doctoral students from within this framework will analyze what we mean by culture; how it is produced and consumed; the relationship of everyday life are represented by dominant cultural and sub-cultural groups and institutions. It is in this context that the course also examines how relations of power, knowledge, social identity and pedagogy within educational institutions are conditioned and shaped by the educational practice that shapes and impinges upon the internal workings and purposes of educational institutions.

SCG 721
HUMAN DEVELOPMENT AND THE EDUCATIONAL PROCESS This course will examine the process of human development and learning through the ages by critically examining cross-cultural research and developmental theories designed to describe and interpret the physical, social, emotional, intellectual, and psychological processes involved. Emphasis will be placed on the range of individual, familial, environmental, and cultural factors that may enhance or inhibit human growth and development, and on the critical role that human relationships play in the lifelong interactive processes of learning and growth. Considerable attention will be paid to the historical role of power, culture, class, gender and capability in defining and interpreting certain behaviors as indicators of normative development. These normative indicators will be critiqued with regard to underlying cultural assumptions and values, their function in fostering and maintaining current social, educational and political relations, and their contribution to the current crises in urban education and the development of children and youth. Class participants will examine their perspective on human development and learning and explore the socio-cultural and historical bases which contribute to their underlying values and assumptions. Through multifaceted inquiry utilizing self-reflection, case studies, theoretical analyses, and child assessment and observation, participants will consider the implications for their work as educational leaders in approaching current challenges with students, parents, community, and teachers and in creating schools that will foster societal change to support the healthy development of children and youth.
SEMINAR: FRAMEWORKS OF INQUIRY IN EDUCATIONAL RESEARCH This course offers doctoral students a general introduction to theory and practice in educational research. First, it is designed to help students develop an understanding of the assumptions that underlie multiple approaches to knowledge construction and the conduct of inquiry in education. Students will explore theoretical and methodological issues and will develop skills necessary for critical analysis of multiple educational frameworks. Emphasis will be placed on the structural organization of the dissertation proposal.

SCG 735
QUANTITATIVE RESEARCH METHODS I This course is designed to provide doctoral level students with theoretical and practical preparation in quantitative research design including: instrumentation; data collection; statistical analysis; ethics and politics of the conduct of research; and development of analytical skills for critiquing quantitative research. Students will have the opportunity to work with real databases to conduct both univariate and multivariate analyses, including correlations, ANOVAS, and multiple regressions. Prerequisite: SCG 785.

SCG 739
DISCIPLINED INQUIRY SEMINAR I Disciplined Inquiry Seminar I. In contrast to the doctoral core courses - which address inquiry processes and relationships between theory and practice within a field - these seminars address practical problems in the complex, interrelated and dynamic manner in which they present themselves. The connections between areas of study and the way these present themselves. The connections between areas of study and the way these connections inform, or are informed by, practice are addressed in an interconnected and developmental manner. The learner's inquiries will be the agenda, with appropriate literature infused in a timely manner as needs to expand thinking are recognized. Problems addressed will arise from three areas of students' experience: 1) the everyday experiences they bring with them to the seminar; 2) the queries they experience when relating course work and practice; and 3) the more direct inquiries associated with conducting research. (Not attached to specific areas of study in the program or to clinical hours.)

SCG 745
QUALITATIVE RESEARCH METHODS I This course is designed to provide doctoral level students with theoretical and practical preparation in qualitative methods including: data collection and analysis; ethics and the politics of the conduct of research; and critical analytical skills for review and critique of qualitative research. Students will be introduced to a range of approaches to qualitative inquiry that may include: narrative inquiry; ethnography; case study; phenomenology; grounded theory; and participatory action research from a variety of theoretical perspectives. Prerequisite: SCG 785.

SCG 749
DISCIPLINED INQUIRY SEMINAR II Disciplined Inquiry Seminar II. In contrast to the doctoral core courses - which address inquiry processes and relationships between theory and practice within a field - these seminars address practical problems in the complex, interrelated and dynamic manner in which they present themselves. The connections between areas of study and the way these connections inform, or are informed by, practice are addressed in an interconnected and developmental manner. The learner's inquiries will be the agenda, with appropriate literature infused in a timely manner as needs to expand thinking are recognized. Problems addressed will arise from three areas of students' experience: 1) the everyday experiences they bring with them to the seminar; 2) the queries they experience when relating course work and practice; and 3) the more direct inquiries associated with conducting research. (Not attached to specific areas of study in the program or to clinical hours.)

SCG 751
CURRICULUM FOR HUMAN AND COMMUNITY DEVELOPMENT Curriculum For Human And Community Development

SCG 755
QUANTITATIVE RESEARCH METHODS II A continuation of SCG 735. Students will prepare a methodology section of a research project and will learn how to write up quantitative results of their analyses. By the end of the course students should be able to: understand quantitative methodological approaches; select appropriate data collection strategies; conduct the appropriate analysis for the research question(s) proposed and the nature of the data; and be prepared to write a candidacy paper. Prerequisite: SCG 735.

SCG 759
DISCIPLINED INQUIRY SEMINAR III Disciplined Inquiry Seminar III. In contrast to the doctoral core courses -
which address inquiry processes and relationships between theory and practice within a field - these seminars address practical problems in the complex, interrelated and dynamic manner in which they present themselves. The connections between areas of study and the way these present themselves. The connections between areas of study and the way these connections inform, or are informed by, practice are addressed in an interconnected and developmental manner. The learner's inquiries will be the agenda, with appropriate literature infused in a timely manner as needs to expand thinking are recognized. Problems addressed will arise from three areas of students' experience: 1) the everyday experiences they bring with them to the seminar; 2) the queries they experience when relating course work and practice; and 3) the more direct inquiries associated with conducting research. (Not attached to specific areas of study in the program or to clinical hours.)

SCG 765
QUALITATIVE RESEARCH METHODS II A continuation of SCG 745. Students will conduct a pilot study on an issue of interest using a qualitative research design. By the end of the course students should be able to: understand qualitative methodological approaches; select appropriate data collection strategies; conduct the appropriate analysis for the research question(s) proposed and the nature of the data; and be prepared to write a candidacy paper. Prerequisite: SCG 745.

SCG 769
DISCIPLINED INQUIRY SEMINAR IV Disciplned Inquiry Sem IV. In contrast to the doctoral core courses - which address inquiry processes and relationships between theory and practice within a field - these seminars address practical problems in the complex, interrelated and dynamic manner in which they present themselves. The connections between areas of study and the way these present themselves. The connections between areas of study and the way these connections inform, or are informed by, practice are addressed in an interconnected and developmental manner. The learner's inquiries will be the agenda, with appropriate literature infused in a timely manner as needs to expand thinking are recognized. Problems addressed will arise from three areas of students' experience: 1) the everyday experiences they bring with them to the seminar; 2) the queries they experience when relating course work and practice; and 3) the more direct inquiries associated with conducting research. (Not attached to specific areas of study in the program or to clinical hours.)

SCG 775
SEMINAR: FRAMEWORKS OF INQUIRY IN EDUCATIONAL RESEARCH I This course offers doctoral students a general introduction to theory and practice in educational research. First, it is designed to help students develop an understanding of the assumptions that underlie multiple approaches to knowledge construction and the conduct of inquiry in education. Second, the course will introduce students to the structural organization of a research manuscript. By the end of the course students should be able to: understand key theoretical and methodological issues in educational inquiry; engage in the critical analysis of multiple educational frameworks; recognize the components of a research manuscript; and identify a general topic area for dissertation research.

SCG 779
DISCIPLINED INQUIRY SEMINAR: LITERATURE REVIEW/PROPOSAL A practical approach to the complex, interrelated and dynamic development of the literature review for the dissertation proposal. The learner's inquiries will be the agenda with appropriate literature infused. Students will produce a substantive draft for the proposed dissertation research.

SCG 785
SEMINAR: FRAMEWORKS OF INQUIRY IN EDUCATIONAL RESEARCH II Drawing upon the knowledge and skills developed in Frameworks of Inquiry I, this course is designed to enhance students' ability to critically analyze existing research as a crucial element in completing their own doctoral research. Emphasis will be placed on the preparation of a critical literature review. By the end of the course students should be able to: review the components of a research proposal; develop further the ability to evaluate research critically; conduct a literature review that will involve interpretation, evaluation, and synthesis of literature on a topic of their choice; refine a topic for dissertation research; and make an informed decision between the quantitative and qualitative sequences. Prerequisite: SCG 775

SCG 789
DISCIPLINED INQUIRY SEMINAR:BEGINNING RESEARCH A student focused discussion of the practical aspects of the research process. Students will be asked to bring research experiences to the seminar. Problem solving the design issues will be a feature.
ADVANCED DOCTORAL RESEARCH SUPPORT SEMINAR: This course is designed to assist doctoral students with the candidacy paper, the proposal and/or the dissertation research. Students will have the opportunity to set individual project goals. The course will incorporate classroom lecture, group discussion, individual assignments, and individual consultation in order to support students as they move toward completion. This course meets over 2 quarters and should be taken at the end of program coursework. Prerequisite: SCG 755 or 765

SCG 25
BASIC TECHNOLOGY LITERACY Basic Technology Literacy.

Scntfc Data Analysis-Visualztn

Graduate Course Descriptions Scntfc Data Analysis-Visualztn

Scntfc Data Analysis-Visualztn

SDV 410
TOPICS FOR TEACHERS Selected topics in science and science education.

SDV 411
FOUNDATIONS OF PHYSICAL SCIENCE I This course explores the nature of scientific inquiry, using a historical case study of the development of classical physics in the work of Copernicus, Brahe, Kepler, Galileo, and Newton. It explores the roles of observation, classification, experiments, theory, and mathematical models in science as well as the character of scientific change.

SDV 412
FOUNDATIONS OF PHYSICAL SCIENCE II Fundamental concepts of physics examined quantitatively: velocity, acceleration, surface area, volume, density. Elementary modeling for data analysis, including spreadsheets and data acquisition software. Scaling of physical quantities.

SDV 413
LIGHT AND WAVES Fundamentals of wave motion with application to light, water, and sound. Teachers are introduced to a variety of physical science topics in the curriculum as well as an example of the extraordinary unifying power of physics concepts such as waves.

SDV 420
CHEMISTRY FOR TEACHERS The structure and composition of matter. Physical and chemical change, examined from conceptual viewpoints which include atomic theory, stoichiometry, periodicity, bonding, equilibrium, thermodynamics and kinetics.

SDV 421
BIOLOGY FOR TEACHERS This course focuses on the chemical and cellular nature of living organisms, cell structure and function, and heredity. Enzymes, the movement of materials across membranes, photosynthesis, respiration, cell division, and basic genetics.

SDV 422
EVOLUTION AND ECOLOGY FOR TEACHERS This course first examines the evidence for evolution and its mechanisms and provides an overview of current views on the origin and history of life. In the second half, students analyze the characteristics of ecosystems: interdependence of living things with each other and their environment, energy flows, food chains, succession.

SDV 430
ASTROBIOLOGY FOR TEACHERS Astrobiology focuses on basic questions such as: How does life of any kind begin and develop? Does life exist elsewhere in the universe? What are the environmental limits for life? What is the future of life on the earth and beyond? The course reviews the origin and evolution of life on Earth and goes on to examine the prospects of habitats capable of supporting life in our solar system, and the potential for planets and life to exist orbiting other stars. Students will work with NASA remote sensing data of
the earth, the other planets, and their moons.

SDV 431 ASTRONOMY FOR TEACHERS This course emphasizes astronomy particularly relevant to the middle school science curriculum. The structure of the solar system, motion of the sun, phases of the moon, familiarity with the night sky, stellar structure and evolution, galaxies, and introduction to cosmology. Students will be familiarized with student reading materials particularly appropriate for the combined teaching of science and reading. Students will make observations and use sky simulation software.

SDV 432 GEOLOGY AND PLANETARY SCIENCE FOR TEACHERS Planetary formation and evolution. Plate tectonics and the rock cycle, including volcanism, planetary interiors, weathering, sedimentation, and metamorphism.

SDV 440 HEAT AND ENERGY FOR TEACHERS Concept of energy, its nature, forms, and transfer with applications to physical science and earth science. Definition of energy in terms of work, potential and kinetic energy, conservation of energy, thermal energy, solar energy, energy in earth systems.

SDV 441 WEATHER AND CLIMATE FOR TEACHERS Basic physical and chemical processes that shape weather and climate. Solar radiation and the seasons, composition and structure of the atmosphere, atmospheric processes, human effects, historical and contemporary climate change. This course emphasizes quantitative methods.

SDV 442 ENVIRONMENTAL SCIENCE FOR TEACHERS A general introduction to the scientific background of some of the most important environmental problems facing urban areas, the nation and the world. Population dynamics, water and energy resources, ecosystem degradation, extinction and the loss of biodiversity, and climate change. The course will include a field observation and experiment.

SDV 490 SCIENCE TEACHING CAPSTONE [PREREQ(S): SDV 411,412,413 & 6 CONTENT COURSES] Teachers will further examine current research on how students at the middle school level learn science concepts and conduct an action research project involving science teaching. Prerequisite(s): SDV 411, SDV 412, SDV 413 and six content courses).

Software Engineering

Graduate Course Descriptions Software Engineering

Software Engineering

SE 420 OBJECT-ORIENTED DESIGN Techniques and guidelines for designing large-scale software systems in C++ that aim to create highly maintainable, and highly testable software architectures. Techniques discussed include: logical and physical organization and levelization, incrementations of classes. Using templates and C++ Standard Templates Library. PREREQUISITE(S): CSC 212 or CSC 224 or CSC 396.

SE 425 PRINCIPLES AND PRACTICES OF SOFTWARE ENGINEERING This course introduces students to the principles and methods of software engineering. Topics covered include software methodology, software requirements and specifications, software design, testing and validation, software evolution, and project management. Students will also be exposed to a number of popular tools used extensively in industry to support software engineering activities. PREREQUISITE(S): CSC212 or CSC262.

SE 427 SOFTWARE QUALITY MANAGEMENT Quality management principles, tools, and methods applied to the
SOFTWARE QUALITY MANAGEMENT Quality management principles, tools, and methods applied to the software development process. Selected techniques for continuous and incremental improvements in product and process such as defect analysis, control charts, risk assessment, quality control, quality improvement programs, quality function deployment, the capability maturity model, cleanroom engineering, and benchmarking. PREREQUISITE(S): IT 223 or consent.

SE 430
OBJECT ORIENTED MODELING Object-oriented modeling techniques for analysis and design. Provides the tools and techniques needed to solve complex, real-world software engineering problems in an object-oriented manner, using the most effective elements of the Unified Process. The course covers the essential concepts and notation of the Unified Modeling Language (UML), the standard notation for object-oriented analysis and design. Team project. PREREQUISITE(S): CSC212 or CSC262.

SE 431
MODEL-DRIVEN SOFTWARE DEVELOPMENT Introduction to software specification, modeling, and model-driven development. Topics include a survey of approaches to software specification and modeling, specification languages, notations, and techniques for modeling static and dynamic aspects of software systems, and the use of tools in analysis, verification, and transformation of software models PREREQUISITE(S): SE430 or SE450

SE 433
SOFTWARE TESTING This course is designed for the software engineering professional to gain a greater understanding of the key ingredients in creating and/or managing a successful testing program to meet project needs. Topics covered include test lifecycle planning, test design & coverage analysis, complexity, levels of testing such as unit, integration, system, performance and stress testing. Best practice strategies in software testing such as verification & validation, early lifecycle testing, risk based testing and automation will also be examined including exposure to test automation methods and tools. PREREQUISITE(S): CSC 383 or SE430

SE 435
DISTRIBUTED SYSTEMS I (FORMERLY DS420) An introduction to distributed systems. Topics may include: architecture of distributed systems; networking; datagram-oriented and stream-oriented protocols; network programming (for example, the sockets API); remote procedure call and remote method invocation; processes and threads; code migration; software agents; naming of non-mobile and mobile entities; cryptography and security. PREREQUISITE(S): (CSC 383 or CSC 393) and CSC 374.

SE 450
OBJECT-ORIENTED SOFTWARE DEVELOPMENT Principle, techniques and tools of object-oriented modeling, design, implementation, and testing of large-scale software systems. Topics include design patterns, application frameworks, architectural design, and the applications in the software development process to improve the extensibility, maintainability, and reliability of software systems. PREREQUISITE(S): CSC 383

SE 452
OBJECT-ORIENTED ENTERPRISE COMPUTING This course focuses on applying object-oriented techniques in the design, development, and integration of server-side enterprise applications using technologies such as servlets, Java Server Pages, and JDBC. Topics include web applications, multi-tier architecture, model-view-controller architecture, database connectivity, and security. PREREQUISITE(S): CSC 212 or CSC 224 or CSC 396.

SE 453
ARCHITECTURE AND FRAMEWORKS FOR DEVELOPING CLIENT APPLICATIONS This course will focus on software architectures, frameworks, and techniques for developing web-based thin client applications as well as rich desktop client applications. Topics will include discussion on design and architectural patterns, such as model-view-controller pattern; survey of widely used development frameworks for building client applications, such as Struts, Java Server Face (JSF), Swing, and SWT, etc.; discussion of widely used techniques such as AJAX; evaluation of the strengths and weaknesses of these technologies for making technology decisions. Students will gain hands-on experiences in developing applications that utilizes these frameworks and techniques. Prerequisite: SE452.

SE 456
ARCHITECTURE OF COMPUTER GAMES This course discusses the software architecture and the engineering of computer games. The topics include gaming platforms, libraries and frameworks for game development, techniques for accessing and managing low level devices and resources, and application of artificial intelligence. PREREQUISITE(S): CSC212 or CSC262.
SERVICE-ORIENTED ARCHITECTURE An in-depth study of service oriented architecture (SOA) from the business, architectural, and technology perspectives. The business perspective will explain the imperatives behind SOA and discuss the significance of SOA in industry. The architectural perspective will discuss the different architectural models of software development and contrast these with SOA. The technology perspective will provide students with the opportunity to gain the required hands-on experience to analyze, design, implement and deploy SOA solutions that will meet both functional and non-functional requirements. Major topics include software architectures in practice, SOA development lifecycle, Enterprise Service Bus, SOA analysis and design methods, Web Services, and governance. Prerequisite: SE450 or SE435

SOFTWARE ENGINEERING PRINCIPLES Survey of fundamental concepts and principles in software engineering. Requirements analysis and software specification, requirements validation and prototyping, and formal specifications. Software design. Software testing. Software project measurements and management. Social issues and ethics. Students will apply these software engineering concepts and principles to a common problem domain throughout the course. This course is intended as a service course for non-SE students. Prerequisite(s): CSC 212 or CSC 224 or CSC 396.

SOFTWARE ENGINEERING PROJECTS Emphasize on team work, application of development and management techniques and use of CASE tools. The projects involve requirements analysis, requirements validation and inspection, object-oriented design, implementation, testing, integration, demonstration. PREREQUISITE(S): SE 430 or consent.

SOFTWARE MEASUREMENT/PROJECT ESTIMATION Software metrics. Productivity, effort and defect models. Software cost estimation. PREREQUISITE(S):CSC 423 and (SE430 or SE450).

SOFTWARE SAFETY Managing safety, the safety process, hazard analysis models and techniques, designing for safety, verification of safety. PREREQUISITE(S): SE 430 or consent.

SOFTWARE DEVELOPMENT PROCESSES This course will study recent developments in software engineering processes that aim to improve software quality and estimation of development cost and schedule. It will focus on the Unified Software Development Process, along with discussion on other software development processes including: eXtreme Programming (XP), Personal Software Process (PSP), Team Software Process (TSP), and Capability Maturity Model (CMM). PREREQUISITE(S): SE 430.

PERSONAL SOFTWARE PROCESS Software engineering discipline is taught through a scaled down version of industrial software process designed for small-scale development, at the level of an individual. The student proceeds through a progressively more structured sequence of software development processes that provide a sound foundation for large-scale development. Topics include data collection and analysis, planning, estimating the accuracy of plans, and tracking performance against these plans. In addition, students will learn and perform defect management, design and code reviews, design templates and process analysis. This not only provides the student with a solid understanding of the concepts, but also provides then an analysis of their own performance so they can understand their strengths and pinpoint areas where they should try to improve. The students can use the tools and techniques learned in this course to continue their personal improvement throughout their career. Prerequisites: IT 223 and SE 450.

SECURITY ARCHITECTURE I This course focuses on the design and development of software for secure applications. Students will analyze and secure an existing application. Topics include: user authentication mechanisms; practical use of symmetric-key and asymmetric-key ciphers for ensuring secrecy and integrity; key distribution and management; cryptography, authentication, and authorization APIs; Kerberos. PREREQUISITE(S): C++ and CSC 373 and CSC 390 and (SE435 or TDC 561) and SE 450.

SOFTWARE AND SYSTEMS PROJECT MANAGEMENT Project Management is presented from a practitioner’s view. The four basic building blocks of software project management: people, process, tools, and measurements are covered. Special emphasis is placed on professional standards such as the Project Management Book of Knowledge and IEEE Software Engineering Standards. Specific topics include Managing
People, Selecting Project Tools, Leadership & Motivation, Software Development Processes, Estimation, Risk Analysis, Scheduling and Tracking, Leveraging Measurements, and Project Completion. Consideration is given to rapid development and project cultural issues. PREREQUISITE(S): Knowledge of the Software development life cycle model, for example through courses such as SE430, ECT455, IS425, MIS555 or through appropriate work experience.

SE 480
SOFTWARE ARCHITECTURE Software architecture is a critical aspect of complex software systems. A system's architectural design is concerned with describing its decomposition into computational elements and their interactions. Architectural design tasks involve system decomposition; global control structures; protocols for communication, synchronization, data access; physical distribution of components; performance tuning; defining evolution paths; and selecting design alternatives. Major issues addressed include: architectural description, formal underpinnings, design guidance, domain-specific architecture, tools and environments. PREREQUISITE(S): SE 450.

SE 482
REQUIREMENTS ENGINEERING Requirements Engineering (RE) plays a critical role in the software development process. This course will introduce related vocabulary, concepts, and techniques, and will examine the role of RE in software and systems engineering. The course will cover topics related to eliciting, validating, negotiating, analyzing, specifying, and managing requirements. Popular RE tools will also be introduced. Prerequisite: SE430 or SE450.

SE 491
SOFTWARE ENGINEERING STUDIO Students will work in small teams to develop realistic software systems in a master-apprentice environment. The instructor will serve as a master/mentor/project leader. Students will apply knowledge and skills they have learned in previous course in solving real world problems. The projects may last more than a quarter. Students must register for SE 692 Software Engineering Studio Continuation in each subsequent quarter. PREREQUISITE(S): SE 450.

SE 529
SOFTWARE RISK MANAGEMENT Identification, estimation, evaluation, planning, controlling, and monitoring of risk involved in the development, maintenance, operation and evolution of systems. PREREQUISITE(S): IT 223 and SE 430 or consent.

SE 531

SE 533
SOFTWARE VALIDATION AND VERIFICATION Techniques, methods and tools for software inspection and testing. Theory and applications of formal verification of programs. Techniques and tools for automated analysis of programs. PREREQUISITE(S): SE 450.

SE 536
DISTRIBUTED SYSTEMS II (FORMERLY DS421) An intermediate course on distributed systems. Topics may include: clock synchronization; mutual exclusion; distributed transactions; consistency models; distribution and consistency protocols; failure models; achieving fault tolerance; distributed object-based systems; distributed file systems. PREREQUISITE(S): DS 420 and CSC 309.

SE 540
SOFTWARE DEVELOPMENT FOR MOBILE AND WIRELESS SYSTEMS This course will focus on the unique aspects, tool, techniques of developing software applications for mobile and wireless systems, such as personal digital assistant (PDA) devices and mobile phones. Topics include user interface design for small screens, memory management for low-memory devices, efficient programming techniques for limited processors, data synchronization for mobile databases as well as wireless programming with in environments such as WAP, I-mode and Palm OS web Clipping. PREREQUISITE(S): SE 450 and either C or C++ programming experience.

SE 542
SOFTWARE DEVELOPMENT FOR LIMITED AND EMBEDDED DEVICES This course will focus on the unique aspects, tools, and techniques of developing software applications for limited and embedded devices, such as set-top boxes and smart cards. PREREQUISITE(S): SE 450.
SE 546  
SOFTWARE ARCHITECTURE AND DESIGN FOR DESKTOP APPLICATIONS  This course will introduce students to architecture, design and implementation issues for developing GUI-based desktop application. The goal is to understand the engineering aspect of user interface development -- that is the basic software architectures and designs that govern the development of graphical user applications including patterns like the Model-View-Controller and its derivatives, event-driven design, as well as addressing concurrency, performance, caching, and software packaging and distribution issues. The course will also provide an in depth exposure to the toolkits available in Java. Examples include JFC/Swing, JMF, JAF. Prerequisite(s): SE450.

SE 547  
FOUNDATIONS OF COMPUTER SECURITY  This course provides an overview of foundational techniques in the specification and verification of computer systems in the presence of malicious attackers. Topics may include: formal models of interaction, attacker models, robust safety properties such as confidentiality and authenticity, information flow properties such as noninterference, and tools such as model checkers, type checkers and theorem provers. PREREQUISITE(S): CSC 390 and CSC 416.

SE 550  

SE 552  
CONCURRENT SOFTWARE DEVELOPMENT  Fundamentals and techniques of developing concurrent object-oriented applications, using a patterns-based approach. Concepts covered include: threads, synchronization and object locking, thread blocking and deadlock, safety and liveness, state-dependent action and concurrency control. PREREQUISITE(S): SE 450 and CSC 374.

SE 554  
ENTERPRISE COMPONENT ARCHITECTURE  This course will focus on object-oriented component architectures for enterprise applications. Topics include: Enterprise Java Beans (EJB), Java Naming and Directory Interfaces (JNDI), Java Mail and Messaging Services. PREREQUISITE(S): SE 452.

SE 556  
ADVANCED ARCHITECTURE OF COMPUTER GAMES  This course discusses the advanced issues in software architecture and the engineering of computer games. The topics include engineering and programming issues in graphics, scene management, kinematics, simulation, collision detection. Software design patterns and frameworks for computer games. Project management, configuration management, and quality assurance of computer game development projects. PREREQUISITE(S): SE 456 and CSC 374 or instructor consent.

SE 558  
SOFTWARE METHODOLOGIES  Recently developed techniques for software requirements analysis, specification, and design. PREREQUISITE(S): SE 430 or consent.

SE 558  
ARCHITECTURE AND DESIGN FOR MULTIPLAYER GAMES  Multiplayer games were made possible by the advances in networking technology, increases in processor speed and data storage. Today, the majority of successful game titles are equipped with a multiplayer capability. This technical course discusses the fundamental aspects of multiplayer game development such as: design techniques, architectures, client and server side implementation, time and event synchronization, databases. PREREQUISITE(S): (CSC 383 or CSC 393) and CSC 374 or instructor consent.

SE 560  
STRUCTURED DOCUMENT INTERCHANGE AND PROCESSING  Document and data interchange among different applications is an extremely important aspect of software application development. This course will focus on emerging technologies associated with the Extensible Markup Language (XML), such as the Document Object Model (DOM), the Simple API for XML (SAX), the XML Stylesheet Language (XSL) and Transformation Language (XSLT), and XML Schema. Applications of these technologies will be discussed in conjunction with tools and techniques for parsing, transforming, and manipulating documents. PREREQUISITE(S): SE 450 OR (CSC 383 and SE 430).
SOFTWARE RELIABILITY The practical application and theory of software reliability models. Classification and comparison of software reliability models. Parametric estimation. PREREQUISITE(S): CSC 423 or SE 427 or SE 468 or consent of instructor.

SE 570
DESIGN AND ARCHITECTURE OF SECURE SOFTWARE SYSTEMS Design and construction of secure software systems, with an emphasis upon the security mechanisms available in modern programming languages and runtime environments. Topics include APIs for cryptographic techniques and key management; security mechanisms in modern runtime environments, e.g., code signing, code verification, access control, and security policies; design patterns for secure software systems. PREREQUISITE(S): SE 450.

SE 571
SOFTWARE MAINTENANCE Maintenance characteristics, tasks, side effects, issues and techniques. Management considerations. Productivity in the maintenance environment. Structured technologies and maintenance. PREREQUISITE(S): SE 430 or consent.

SE 573
SECURITY ARCHITECTURE II Design and construction of secure software systems, with an emphasis upon the security mechanisms available in modern programming languages and runtime environments. Topics include APIs for cryptographic techniques and key management; security mechanisms in modern runtime environments, e.g., code signing, code verification, access control, and security policies; design patterns for secure software systems. PREREQUISITE(S): SE 473.

SE 580
DESIGN OF OBJECT-ORIENTED LANGUAGES This course covers issues in the design and specification of object-oriented programming languages. Sample topics include the use of patterns in program representation, static and dynamic semantics, subject reduction, subtyping, inheritance, polymorphism, genericity and concurrency. PREREQUISITE(S): SE 450.

SE 590
ADVANCED TOPICS IN OBJECT ORIENTED TECHNOLOGY This is an independent study course. PREREQUISITE(S): Consent of the instructor.

SE 591
SOFTWARE ENGINEERING STUDIO II This is the continuation of SE 491. SE 491 and 591 must be taken as a sequence in two consecutive quarters. PREREQUISITE(S): SE 491.

SE 681
SOFTWARE ENGINEERING PROFESSIONAL PRACTICES This course covers a broad range of topics related to professional practices of software engineering including engineering economics; software engineering ethics, professional practices and standards; process infrastructure, definition, measurement, implementation, and change; and software quality concepts including SQA and V&V methods and measurements. Prerequisites See requirements of the Software Engineering Professional Option.

SE 682
SOFTWARE ENGINEERING DEVELOPMENT ENVIRONMENTS This course examines software engineering practices, principles, and environments related to software maintainability: software maintenance, software configuration identification, control, accounting, and auditing; software release management and delivery; and tools and methods for software engineering management, development, and maintenance. Prerequisites See requirements of the Software Engineering Professional Option

SE 690
RESEARCH SEMINAR Readings and discussion on current research topics. Students may register for this course no more than three times. PREREQUISITE(S): Consent of the instructor.

SE 691
RESEARCH SEMINAR CONTINUATION This course is intended for students not registering in either SE 696 or SE 698. After registering for SE 690, students register for this course in each subsequent quarter until they complete the research. Students who fail to do so will be required to re-enroll in SE 690 to meet the requirement for completing that course. Prerequisite: SE 690

SE 692
SOFTWARE ENGINEERING STUDIO CONTINUATION Students register for continuation after registering for SE
SE 491 in each subsequent quarter until they complete their studio project. Students who fail to do so will have to re-register for SE 491 to meet the requirement for completing that course. PREREQUISITE(S): SE 491.

SE 696
MASTER'S PROJECT (4 credit hours) Students may register for this course only after their advisor has approved a written proposal for their project. Independent study form required. PREREQUISITE(S): Consent of advisor.

SE 698
MASTER'S THESIS (2 credits) Students may register for this course only after their advisor has approved a written proposal for their thesis. Students must continue to register for this course every quarter after their first registration in it until they complete their project or thesis to the satisfaction of their advisor. They earn two hours of credit for each such registration but only four hours of credit will apply for degree credit. PREREQUISITE(S): Consent of advisor. Independent study form required.

SE 699
SOFTWARE ENGINEERING RESEARCH CONTINUATION Students register for continuation credit after registering for SE 698 in each subsequent quarter until they complete their thesis. Students who fail to do so will have to reregister for SE 698 to meet the requirement for completing that course. PREREQUISITE(S): SE 698.

Schl for New Learning Graduate

Graduate Course Descriptions Schl for New Learning Graduate

School for New Learning Graduate

SNL 300
BUSINESS AND PROFESSIONAL WRITING As contemporary American business continues to move toward internet- and web-based communication, and with increasing demands on business managers to communicate key messages quickly and effectively, the ability to write clearly and fluently is an increasingly valuable skill. Business and Professional Writing offers practical experience in developing cogent, concise and articulate written products. Business and Professional Writing examines an array of topics, including: Business letters; memoranda; e-mail; business reports; abstracts and executive summaries; reports and recommendations; cover letters and resumes; narratives; and descriptive essays. The workshop will review process, content and structural elements, including: style; use of active and passive voice; argument and persuasion; cohesions; parallel structure; punctuation; and common grammatical problems. Students will learn to plan and organize effective business letters and other written products; to examine and write to a specific audience; to select the most effective wording and phrasing; to analyze and revise written works (either their own, or the work of others); to identify logical fallacies; to write within a specific context; and to work collaboratively in creation and modification of business and professional written documents. This course is offered as a workshop.

SNL 500
PROFESSIONAL ASSESSMENT Professional Assessment

SNL 501
ASSESSING TO IMPROVE MATH TEACHING AND LEARNING Teachers will learn strategies for responsive assessment to student math learning. The teachers will work with other teachers at their schools to develop systems for ongoing formative evaluation and response to student math learning needs they identify as they assess student learning. The course will develop the teachers' competences as follows: 1) Able to develop and interpret assessments of student math learning using principles of formative evaluation. 2) Able to coach other teachers on the systematic use of formative evaluation to improve instruction. Teachers will reflect on their own learning as they develop these two competences. They will report on that progress through learning reports that indicate how they apply their own learning insights to assisting other teachers as well as responding to student needs.
THROUGH THE EYES OF THE SCIENTISTS: THE EVOLVING UNIVERSE
Science appears daunting, but few subjects are as exciting and dramatic as the ageless story of the human mind challenging itself to figure out something altogether new about our evolving universe. Through rich and varied original writings of the greatest scientific thinkers, we will explore some of the most remarkable milestones and breakthroughs in scientific thought from physics to paleontology. Famous scientific personalities will come to life in their vivid explanations of astonishing insights and experiences of discovery in their memoirs and biographies. We will glean understanding into the adventure of the creative process by looking through the eyes of the scientist and ponder the paradoxes, mystery and beauty of human life and what it means to be human. We will emphasize both the contrasts and continuity of scientific thought between the ancient and modern eras, and proceed from the premise that science is inspired by simple wonder and curiosity about the universe of life. By asking "why?", we will live science in its purest form, for each answer only sparks new questions and allows us to take the words of Einstein to heart: "The important thing is not to stop questioning. Curiosity has its own reason for existing. Never lose a holy curiosity."

DESIGNING MIDDLE SCHOOL CURRICULUM TO INTEGRATE READING AND WRITING
The course will provide middle school teachers with the opportunity to have a dialogue among themselves about a concept-developing curriculum and effective approaches to planning, teaching, and assessing learning with a conceptual emphasis. Currently teachers at the middle and high school levels often have an informational curriculum rather than an idea-developing one. The course will enable teachers to organize a middle-school curriculum framework that emphasizes the construction of ideas by students as they interpret situations in science, social studies, and apply mathematics, reading, and writing to analyze and communicate the concepts they construct. The teachers themselves will learn how to think conceptually about topics they teach and to engage students in thinking with information to envision ideas. The teachers will continue this process on an ongoing basis after the course so that they become teachers of thinking about their subjects.

LEARNING PLAN COLLOQUIUM

INCREASING LEARNING THROUGH RESPONSIVE ASSESSMENT
The course will focus on improving schools through the assessment and response to reading comprehension progress and needs of elementary students through job-embedded teacher education. Principles of adult education will be used to guide the work of individuals who will help to guide the school's development of an effective system of responsive reading assessment. Participants will identify what priorities they have for their own progress and their school's development and how to achieve them. The course will provide an opportunity to clarify the structures and systems of of competency-based assessment for students and for teachers. The course sessions will be interactive, and course assignments will include opportunities to work collaboratively with other educators at your school as well as in the course.

GUIDED INDEPENDENT STUDY INDEPENDENT STUDY

LEARNING PLAN RESIDENTIAL
The residential will provide a detailed overview of the MAAPS, the seminars, courses, and thesis project. A portion of the residential will address technology skills and distance communication strategies and etiquette during the entire program. Students will become engaged in setting individual competences that customize to their particular areas of interest and need as they pursue study of the content in each seminar and course. The residential will also offer opportunities for conversational English language practice. Students will become familiar with their own preferred learning styles. Overall, the residential will also be utilized to begin building a learning community and answer any questions students may have about graduate education.

LEARNING IN THE BILINGUAL EDUCATION CLASS ROOM: THEORIES AND PRINCIPLES
Students will gain and demonstrate knowledge of the main theories in bilingual education, analyze theories, and identify significant challenges facing practitioners in social, cultural, and international contexts.

STRATEGIES & TECHNIQUES FOR THE MULTI-LEVEL, BILINGUAL CLASSROOM WITHIN INTERNATL EDUCATION CONTEXTS
Students will apply strategies for learning subjects based on a variety of models (e.g., psychological, neuro-linguistic); select appropriate methods of communication suited for multi-level group learning in primary and secondary education subjects; understand relevant group dynamics (e.g., culture,
learning in primary and secondary education subjects; understand relevant group dynamics (e.g., culture, conflict, gender); utilize relevant media (e.g., technology); apply variety of instruments; and integrate facilitation strategies based on learning styles.

SNL 543
LEARNING ACROSS THE BILINGUAL CURRICULUM: BEST PRACTICES IN DESIGNING AND IMPLEMENTING CURRICULA Demonstrate an understanding of teachers’ roles in the integrated classroom; set standards for learning outcomes; use a variety of learning styles to reinforce and assess learning across the curriculum; identify and apply principles of integrated curriculum design; identify various approaches to reflection and analyze their own experience through reflection.

SNL 544
LEARNING ACROSS THE BILINGUAL CURRICULUM: BEST PRACTICES IN ASSESSING CURRICULA Students will determine methods for setting standards for learning outcomes; apply assessment models to create criteria and standards for evaluation of learning objectives; and practice techniques for multi-layered assessment of subjects across the curriculum within bilingual education approaches.

SNL 545
PSYCHOLOGY OF LEARNING AND TEACHING: INTERPERSONAL/INTERCULTURAL DYNAMICS Students will demonstrate ability to utilize techniques for effective classroom management; identify and apply successful methods of inter-generational communication to curriculum design and teaching techniques; review and apply developmental psychology theories for teaching pre-adolescent and adolescent groups of students; and evaluate their own belief systems as a precursor for improving interpersonal dynamics.

SNL 546
SPECIAL CHALLENGES AND ISSUES: DESIGNING THE SCHOOL FOR THE FUTURE Students will gain skills in analyzing and revising integrated, bilingual curricula within the context of technology media; discern appropriate use of technology-based media for effective learning; and compare, contrast, and select emerging strategies to promote educational structures that support successful learning in international education. (SNL 760 and SNL 770)

SNL 547
THESIS PROJECT The Thesis Project is an original, independently conducted project that both incorporates elements of theory and practice and demonstrates integration of Liberal Learning and Graduate Focus Area competencies.

SNL 550
PROFESSIONAL CONCENTRATION Professional Concentration

SNL 551
BODY, MIND AND SPIRIT: YOGA AND MEDITATION Why are 20 million Americans practicing yoga? This course answers that question with an introduction to yoga and meditation techniques and the underlying scientific and philosophical principles of the system of yoga. Each student will keep weekly reflection journal observations on the changes (s)he notices in himself or herself. This course will refresh, relax, rejuvenate. Yoga mats and other props will be provided. Bring/wear comfortable clothes (no jeans, belts, dresses). This is a GENTLE YOGA class for beginners - NO PREVIOUS EXPERIENCE is needed. Yoga means to unite or yoke so course will explore the ways to unite body, mind, spirit. This course is designed to 1) help establish good health and well-being; 2) gain scientific knowledge and understanding of the muscular/skeletal, cellular, organ, nerve, and neuroendocrine systems of the body; and 3) explore the spiritual benefits of meditation. Professor Dolan has taught yoga and meditation at DePaul for four years in the DePaul University Chapel. Over the past nine years she has taught yoga at several YMCAs, conferences, retreats, workshops, etc. Faculty: Maureen Dolan

SNL 552
PROFESSIONAL CONCENTRATION II Professional Concentration II

SNL 553
PROFESSIONAL CONCENTRATION III Professional Concentration III

SNL 554
PROFESSIONAL CONCENTRATION IV Professional Concentration IV

SNL 555
FOCUS AREA I Focus Area I
FOCUS AREA I  Focus Area I

FOCUS AREA II  Focus Area II

FOCUS AREA III  Focus Area III

FOCUS AREA IV  Focus Area IV

MID-PROGRAM REVIEW  Mid-Program Review

COMMON CURRICULUM  Common Curriculum

COMMON CURRICULUM I  Common Curriculum I

COMMON CURRICULUM II  Common Curriculum II

COMMON CURRICULUM III  Common Curriculum III

COMMON CURRICULUM IV  Common Curriculum IV

THE HOLOCAUST AND ITS IMPLICATIONS FOR THE FUTURE  This course combines a study of the Holocaust with a visit to the U.S. Holocaust Memorial Museum, the nation's official memorial to the Holocaust. Participants will be able to tour the permanent exhibition at the Museum, visit the Wexler Learning Center which is a computer database of facts and data relating to the Holocaust, and then participate in a seminar with several Museum and Holocaust experts. At DePaul, we will focus on major events leading to the Holocaust and study the groups central to any analysis of the Holocaust: perpetrators, victims, rescuers and bystanders. We also plan to meet with Holocaust survivors. This is extremely important to do now since there is still time to meet and to discuss the Holocaust with eyewitnesses of the events.

APPLIED RESEARCH METHODS  Applied Research Methods

COMMUNICATIONS FOR PROFESSIONALS  Communications For Professionals

GROUP PROCESS IN THE WORLD OF WORK  Group Process In The World Of Work

MODELS OF CHANGE  Models Of Change

VALUING HUMAN DIFFERENCES  Valuing Human Differences

ETHICS IN THE PROFESSIONS  Ethics In The Professions

LEADERSHIP  Leadership

PRELIMINARY REVIEW  Preliminary Review
SNL 580
MASTER WORK I Master Work I

SNL 590
GRADUATION COLLOQUIUM Graduation Colloquium

SNL 595
ASSESSMENT AND LEARNING PLAN COLLOQUIUM Assessment And Learning Plan Colloquium

SNL 598
SPECIAL TOPICS Special Topics

SNL 599
LABOR HISTORY FOR TEACHERS Labor History For Teachers

SNL 600
NON-RESIDENT CANDIDACY CONTINUATION Non-Resident Candidacy Continuation

SNL 601
APPLYING RESEARCH METHODS This seminar provides students with an opportunity to develop the Liberal Learning facilities through applying research methods. Basic concepts, principles and methods of research, analysis of relevant literature in students' individualized Focus Areas, and the adaptation of traditional models of academic research to the workplace are discussed. Students are provided with opportunities both to further their skills in critical thinking, conceptualization, and problem-solving and to develop strategies for the successful management of independent research and self-managed learning.

SNL 602
UNDERSTANDING PERSONAL AND ORGANIZATIONAL CHANGE This seminar provides students with an opportunity to develop the Liberal Learning facilities through understanding personal and organizational change. Multiple dimensions and dynamics of change and the roles and responsibilities of professionals as change agents are explored. Special emphasis is placed on analyzing change processes using both linear and systems models and formulating interventions to facilitate productive change in the workplace (profit and nonprofit).

SNL 603
IMPROVING COMMUNICATION AND GROUP PROCESS Improving Communication And Group Process

SNL 604
VALUING HUMAN DIFFERENCES This seminar provides students with an opportunity to develop the Liberal Learning facilities through valuing human differences. The origins, nature, and costs of prejudice and other barriers that interfere with the valuing of human differences are explored in and of themselves and in relation to the increasingly diverse workforce in today's organizations. In addition, through group discussions and interviews, students are provided with opportunities to gain a deeper understanding of their own prejudices and to develop a rationale for revaluing human differences in their own lives.

SNL 605
ENGAGING ETHICAL REASONING This seminar provides students with an opportunity to develop the Liberal Learning facilities through engaging ethical reasoning. A variety of ethical decision-making frameworks are explored as well as the nature and impact of ethical issues and questions pertinent to organizational contexts. Case studies are used to stimulate reflection on individual and societal moral values. In addition, particular attention is given to designing a personal model of ethical decision-making for application within various contexts.

SNL 606
EXERCISING EFFECTIVE LEADERSHIP This final seminar provides students with an opportunity to develop the Liberal Learning facilities through exercising effective leadership. Major themes of each of the previous seminars are integrated within the concept of effective leadership in a changing world. Key theories and principles relative to the management/leadership continuum are examined as well as the implications of current trends for the future of leadership both in general and within students' personal/professional contexts.

SNL 610
SNL 610
FOCUS AREA: THEORIES I Focus Area: Theories I

SNL 611
FOCUS AREA: THEORIES II Focus Area: Theories II

SNL 612
FOCUS AREA: THEORIES III Focus Area: Theories III

SNL 615
DEVELOPING PROFESSIONAL IDENTITY Practitioners in the field of formal and informal adult education, start the program with an examination of their professional interests, experiences and work environments. Within the context of the body of knowledge within adult education, learners will explore questions about competencies, expectations, beliefs, and assumptions that will guide them to analyze the various historical, cultural, philosophical, theoretical, and social contexts.

SNL 616
DESIGNING EDUCATIONAL OFFERINGS This course builds competencies in designing educational offerings. It emphasizes pre-design assessment models and practices to prepare practitioners for designing a variety of education events and processes with the learner's needs in mind.

SNL 617
FACILITATING ADULTS LEARNING The intersection of design, learning outcomes, and assessment processes passes through the medium of facilitation in educational settings. This course expands the practitioners' repertoire of effective delivery of facilitation/instruction strategies and techniques, and integrating the use of technology in instruction (including Internet-based teaching).

SNL 618
ENHANCING PRACTICE WITH THEORY This course aims to ground practitioners' experiences and praxis within relevant adult learning theories and developmental theories. Students will connect researching to the creation and/or application of best practices in their respective niche of adult education.

SNL 619
MAIN THEORIES This area addresses knowledge and understanding of theories, models and/or theoretical frameworks - including implications for practice - that are most relevant to the Focus Area.

SNL 620
FOCUS AREA: RESEARCH METHODS I Focus Area: Research Methods I

SNL 621
FOCUS AREA: RESEARCH METHODS II Focus Area: Research Methods II

SNL 622
FOCUS AREA: RESEARCH METHODS III Focus Area: Research Methods III

SNL 625
PRACTICE-BASED INQUIRY This course lays the groundwork for the applied inquiry project (SNL 627). Students will learn to connect their professional and personal interests to one or more forms of research - traditional, innovative, theoretical, applied, and/or evaluative.

SNL 626
ASSESSING LEARNING AND EVALUATING PROGRAMS This course presents approaches for selecting and applying assessment and evaluation models and strategies. It focuses on assessing individuals' learning in the context of evaluating programs and actions intended to meet learners' needs. Participants will gain skills in evaluation instrument design, selection of assessment methods and instruments, assessment of short-term effects, and report writing.

SNL 627
RESEARCHING AND INQUIRING This class is broken down into three sections. Section A - Finding and Managing Information: This short course provides participants with skills of collection, analyses, and syntheses of literature and resources in their respective area(s) of professional interest. Section B - Applied Inquiry Proposal I and Section C - Applied Inquiry Proposal II: These 1-credit hour proposal sessions assist students in preparing for the SNL 627 Applied Inquiry Project. These may be one-on-one and/or small group colloquia, supporting students independent research activities throughout the program.
SNL 628
APPLIED INQUIRY PROJECT Students will be able to inquire into particular areas of their professional interest within the field of adult learning/adult education. This course is individualized and supported by mentors.

SNL 629
METHODS OF RESEARCH This area addresses the systematic gathering of data and interpretation of findings as practiced within the Focus Area and/or related fields.

SNL 630
FOCUS AREA: SPECIALIZED SKILLS I Focus Area: Specialized Skills I

SNL 631
FOCUS AREA: SPECIALIZED SKILLS II Focus Area: Specialized Skills II

SNL 632
FOCUS AREA: SPECIALIZED SKILLS III Focus Area: Specialized Skills III

SNL 635
REFLECTIVE PRACTICE SEMINAR I This is a faculty-guided session, which includes the admission process. Students design their course of study, identify course and independent study options, sketch out a potential research agenda, and develop a rudimentary credo and statement of purpose.

SNL 636
REFLECTIVE PRACTICE SEMINAR II After the third quarter, students come together for group reflection and analysis and review of their progress in the program. This seminar assists students in focusing their capstone inquiry project.

SNL 637
REFLECTIVE PRACTICE SEMINAR III After the fifth quarter, this seminar offers an opportunity for program review and collaborative review of capstone project process.

SNL 638
REFLECTIVE PRACTICE SEMINAR IV At the end of the program, students join in a summit to review their program, engage in discussion on their next steps, and review their credo of adult education. It is also a preliminary graduation review to ensure that any ?loose ends? are recognized and appropriate action is clarified for students.

SNL 639
SPECIALIZED SKILLS This area involves identifying skills that are particular to the profession and the context(s) in which these skills are applied. The emphasis is on actual demonstration of specialized skills used in practice.

SNL 640
FOCUS AREA: COMMUNICATION MODES I Focus Area: Communication Modes I

SNL 641
FOCUS AREA: COMMUNICATION MODES II Focus Area: Communication Modes II

SNL 642
FOCUS AREA: COMMUNICATION MODES III Focus Area: Communication Modes III

SNL 643
THEORIES OF PARENT-CHILD DEVELOPMENT WITHIN CULTURAL CONTEXT: IMPLICATIONS FOR PRACTICE Professionals who work with parents will be more effective if they have a working theory about parent-child development. Theories hypothesize what children contribute to the developmental process as well as parents. They include a consideration of the different belief systems, values and goals parents and practitioners in different cultural contexts bring to parenting. Current ecological theories of parenting also help practitioners understand the complexity of the environment and its impact on parent-child development. In this course students will explore their own beliefs and understanding of parent-child relations and evaluate theories of parent-child development within social-cultural context that have evolved in the field. Students will develop a theory that integrates much of the earlier thinking and use it to better understand the parents and children in their own practice.
Once professionals have a theoretical framework for understanding parent's and children's developmental needs, they can analyze the parental role, by answering a series of questions: What does society expect parents to do? What do parents need to do to meet their children's and their own developmental needs? What attitudes, information and skills do parents need to have to feel confident and competent when fulfilling their role? As parenting is now seen not as static but as a dynamic role we also need to ask "how do parents adapt to changing children and situations?" Using this analysis of the parental role, practitioners will review parenting education and support programs as well as devise a parenting education program for the parents with whom they are working or with whom they hope to work.

CULTURALLY COMPETENT PARENTING EDUCATION AND SUPPORT Students will explore all that is involved in being culturally sensitive in their work in the PES field. This includes a consideration of the different belief systems, values and goals parents and practitioners in different cultural contexts bring to parenting. Students will have an opportunity not only to inquire and reflect on what cultural competence entails but on their own cultural standpoint.

METHODS OF PARENTING EDUCATION AND SUPPORT This course addresses the different methods, audiences and contexts for promoting parent learning, discussion and support. It focuses first on theories of adult learning that can strengthen program design and delivery. We also ask: ?What are some appropriate strategies for enhancing interpersonal communication between parents, children and the professionals who serve them? How do we effectively communicate with parents individually, in groups and by various other formats (videos, newsletters, etc)?? Students will be in a position to devise parenting education programs that best meet the learning style and needs of the parents with whom they work. Interspersed throughout the course will be a consideration of relevant ethical issues which will be integrated in the programs the students design.

PARENTING AND FAMILY SUPPORT IN SOCIO-CULTURAL CONTEXTS No matter how well we manage to prepare parents to fulfill their parent role and understand child developmental needs, the environment will either support or impede parents in their role. Practitioners need to understand the following: How does one?s family impact one?s parenting (e.g. spouse/partner, family of origin, extended family)? How do events such as the birth of a special needs child, illness of family members, or divorce affect parenting? How does one?s socioeconomic status and neighborhood affect one?s parenting? What about the effect of friends, neighbors, church, school, work place, health care system, social service system on one?s parenting? How do governmental policies and politics and world events affect one?s parenting? What about the media? Practitioners will identify the impact of these environmental events on the parents with whom they work and devise ways of helping parents cope with the ones that are detrimental to their parenting.

COMMUNICATION MODES This area involves facility with communication modes relevant to professional practice in the focus area. It requires an understanding of the relationship among key communication variables (the message, the method, the audience, and the context), a repertoire of communication strategies, and a dexterity or ease of access permitting the professional to adapt communication strategies to changing situations as necessary.

FOCUS AREA: ORGANIZATIONAL/INTERPERSONAL DYNAMICS I Focus Area: Organizational/Interpersonal Dynamics I

FOCUS AREA: ORGANIZATIONAL/INTERPERSONAL DYNAMICS II Focus Area: Organizational/Interpersonal Dynamics II

FOCUS AREA: ORGANIZATIONAL/INTERPERSONAL DYNAMICS III Focus Area: Organizational/Interpersonal Dynamics III

PARENTING EDUCATION AND SUPPORT PROGRAM DESIGN AND EVALUATION Before practitioners can provide
education and support to parents they need to carefully assess what their parent population needs, what research has shown works best, how to do effective formative and summative evaluation of their own programs and what supports and collaborations within the parent’s socio-cultural context are needed to maximize program effect. They need to know how to bring parents into this process. They need to know what tools of inquiry can best facilitate this investigative process. They need also to understand the limitations and challenges of outcome based research in this field. They need to know how to evaluate research on parent programs. In doing gap analyses they can also advocate for more effective programs for families.

SNL 655
THEORIES AND DYNAMICS OF PERSONAL/PROFESSIONAL EFFECTIVENESS The course focuses on the development of competencies related to exploring and analyzing major theoretical approaches to leadership and evaluating their application(s) within multiple contexts of adult life (e.g., personal, professional, organizational, etc.). Emphasis is also placed on the exploration and analysis of related organizational/interpersonal dynamics.

SNL 656
METHODS OF RESEARCH AND REFLECTION IN EFFECTIVE PRACTICE This course focuses on the development of competencies related to exploring and analyzing major methods of research employed in the study of leadership and those most frequently used in the practice of leading within multiple contexts of adult life (e.g., personal, professional, organizational, etc.). The role and use of reflection (various methods) in leadership practice is also explored. Practice applying methods of research and reflection is included.

SNL 657
ESSENTIAL SKILLS & COMMUNICATION MODES IN EFFECTIVE PRACTICE This course focuses on the development of competencies related to exploring and analyzing key leadership skills and related communication skills as used in the practice of leading within multiple contexts of adult life (e.g., personal, professional, organizational, etc.). Practice applying these skills is included.

SNL 658
ETHICS & CONTEXUAL CHALLENGES IN ADULT LIFE This course focuses on the development of competencies related to exploring and analyzing major ethical issues in leading within, and across, multiple contexts of adult life (e.g., personal, professional, organizational, etc.). Emphasis is placed on major contextual challenges, ethical frameworks and ethical decision-making in the practice of leadership.

SNL 659
ORGANIZATIONAL AND INTERPERSONAL DYNAMICS This area addresses the human and structural issues that professionals encounter within practice (work) environments, providing students with the opportunity to consider how their professional role affects and is affected by systems, technology, structure and other people within their practice settings.

SNL 660
FOCUS AREA: LARGER CONTEXTS I Focus Area: Larger Contexts I

SNL 661
FOCUS AREA: LARGER CONTEXTS II Focus Area: Larger Contexts II

SNL 662
FOCUS AREA: LARGER CONTEXTS III Focus Area: Larger Contexts III

SNL 663
BEST PRACTICES FOR PARENTS, FAMILIES AND THE PROFESSIONALS WHO SERVE THEM From the beginning we make it clear that practitioners like those parents they serve are also growing as adults. How can they grow if they do not take time to reflect on their practice and to examine themselves and their situations regularly? How is their work affecting them personally and professionally? How do they care for themselves? What system is in place to regularly meet the needs of practitioners? How do they lead their staffs and model effective self-care? For students in the M.A. there is a need to learn how to facilitate reflection on practice with staff. Thus, like the other courses skill development will be emphasized here also. In addition, time will be spent learning how to more effectively help parents reflect on practice as well. Meta-parenting which focuses on anticipation, assessing, problem-solving and reflecting will frame the discussion.

SNL 669
LARGER CONTEXTS This area addresses the issues and problems of the student’s focus area within a context that includes at least one of the following: the historical development of the profession over time and its
future direction (temporal); the relationship between the profession and the society within which it exists
(social, multi-cultural); and/or, the nature of the profession globally (international).

SNL 670
FOCUS AREA: ETHICAL ISSUES I Focus Area: Ethical Issues I

SNL 671
FOCUS AREA: ETHICAL ISSUES II Focus Area: Ethical Issues II

SNL 672
FOCUS AREA: ETHICAL ISSUES III Focus Area: Ethical Issues III

SNL 675
FOCUS AREA: GENERAL Focus Area: General

SNL 676
FOCUS AREA Focus Area

SNL 679
ETHICAL ISSUES This area addresses the relationship between beliefs and assumptions regarding humanity,
good/evil, right/wrong, etc., and behavioral outcomes (including conflicts).

SNL 680
MASTER WORK PROPOSAL Master Work Proposal

SNL 681
MASTER WORK Master Work

SNL 689
REFLECTION ON PRACTICE This area addresses the interplay between thinking, doing and reflecting in the
often-ambiguous and complex contexts of daily practice.

SNL 690
GRADUATION REVIEW Graduation Review

SNL 698
CAPSTONE AND GRADUATION REVIEW This course focuses on the development of competencies related to
synthesizing and integrating the various components and contexts of leadership into a cohesive whole.
Emphasis is placed on both consolidating perspectives of leadership as a field of scholarly inquiry and as a
dynamic foundation to ongoing personal/professional practice. Graduate Narrative Transcripts are prepared
and finalized.

SNL 699
SUPPLEMENTAL COMPETENCE Student selects a second area from among Theories, Research, Skills,
Communication Modes, Organizational/Interpersonal Dynamics, Larger Contexts, Ethical Issues, and Reflection
on Practice in which to develop and demonstrate competence.

SNL 700
LEARNING PLAN RESEARCH AND DEVELOPMENT This course explores the aims of graduate education with
particular focus on the program of study leading to the Master of Arts in Integrated Professional Studies?its
purpose, scope, philosophy, key roles, and processes. Special emphasis is placed on developing a working
draft of the Learning Plan for the individualized portion of the program (i.e., the Focus Area), attaining a fuller
understanding of individual fields of professional study, and applying Liberal Learning Skills in professional
practice. The process is initiated for establishing an academic committee consisting of the student, the
Faculty Mentor, and a Professional Advisor (an established practitioner in the student?s professional Focus
Area).

SNL 702
LEARNING PLAN REVIEW Throughout the second quarter, students finalize their Learning Plans, convene their
Academic Committees (comprised of themselves, their Professional Advisor, and their Faculty Mentor) to
review their Learning Plans, and upon initial approval, submit their Learning Plans to the Mastery Review
Committee (MRC) for approval.
INDEPENDENT STUDY

MAIN THEORIES
This area addresses knowledge and understanding of theories, models and/or theoretical frameworks - including implications for practice - that are most relevant to the Focus Area.

MAIN THEORIES I

MAIN THEORIES II

MAIN THEORIES III

REFLECTIVE PRACTICE SEMINAR I
Students will have an opportunity to apply what was learned in the first course to their own work setting and have an opportunity for supervision from a professional adviser in the field. This work of reflection on practice will occur via discussions with the faculty mentor and the student's professional adviser identified in the portfolio or LPRD program planning sessions. Students will also be asked to prepare a written reflection on practice and share in online discussions with the faculty mentor and other students in the course.

REFLECTIVE PRACTICE SEMINAR II
Students will have an opportunity to apply what was learned in the first course to their own work setting and have an opportunity for supervision from a professional adviser in the field. This work of reflection on practice will occur via discussions with the faculty mentor and the student's professional adviser identified in the portfolio or LPRD program planning sessions. Students will also be asked to prepare a written reflection on practice and share in online discussions with the faculty mentor and other students in the course.

REFLECTIVE PRACTICE SEMINAR III
Students will have an opportunity to apply what was learned in the first course to their own work setting and have an opportunity for supervision from a professional adviser in the field. This work of reflection on practice will occur via discussions with the faculty mentor and the student's professional adviser identified in the portfolio or LPRD program planning sessions. Students will also be asked to prepare a written reflection on practice and share in online discussions with the faculty mentor and other students in the course.

REFLECTIVE SEMINAR IV
Students will have an opportunity to apply what was learned in the first course to their own work setting and have an opportunity for supervision from a professional adviser in the field. This work of reflection on practice will occur via discussions with the faculty mentor and the student's professional adviser identified in the portfolio or LPRD program planning sessions. Students will also be asked to prepare a written reflection on practice and share in online discussions with the faculty mentor and other students in the course.

METHODS OF RESEARCH
This area addresses the systematic gathering of data and interpretation of findings as practiced within the Focus Area and/or related fields.

METHODS OF RESEARCH I

METHODS OF RESEARCH II

METHODS OF RESEARCH III

APPLYING RESEARCH METHODS SEMINAR
This seminar provides students with an opportunity to develop the
APPLYING RESEARCH METHODS SEMINAR This seminar provides students with an opportunity to develop the Liberal Learning facilities through applying research methods. Basic concepts, principles and methods of research, analysis of relevant literature in students' individualized Focus Areas, and the adaptation of traditional models of academic research to the workplace are discussed. Students are provided with opportunities both to further their skills in critical thinking, conceptualization, and problem-solving and to develop strategies for the successful management of independent research and self-managed learning.

SNL 726
PES CERTIFICATE PORTFOLIO This course involves an introduction to the history, philosophy and current status of the field of parenting education and support, a review of the student's prior experience and competencies in the field and the development of a learning plan that best meets the individual student's needs. The student will read materials on the field, engage in an online discussion of them with the instructor and classmates and then meet with the instructor to plan for the applied practice and reflection on practice components of the program.

SNL 728
ASSESSMENT AND INTEGRATION I This session includes orientation of Professional Advisors, and provides opportunity to integrate and apply dynamics of reflective practice, self-assessment, liberal learning, and ongoing collaboration.

SNL 730
SPECIALIZED SKILLS This area involves identifying skills that are particular to the profession and the context(s) in which these skills are applied. The emphasis is on actual demonstration of specialized skills used in practice.

SNL 731
SPECIALIZED SKILLS I Specialized Skills I

SNL 732
SPECIALIZED SKILLS II Specialized Skills II

SNL 733
SPECIALIZED SKILLS III Specialized Skills III

SNL 735
UNDERSTANDING PERSONAL AND ORGANIZATIONAL CHANGE SEMINAR This seminar provides students with an opportunity to develop the Liberal Learning facilities through understanding personal and organizational change. Multiple dimensions and dynamics of change and the roles and responsibilities of professionals as change agents are explored. Special emphasis is placed on analyzing change processes using both linear and systems models and formulating interventions to facilitate productive change in the workplace (profit and nonprofit).

SNL 740
COMMUNICATION MODES This area involves facility with communication modes relevant to professional practice in the focus area. It requires an understanding of the relationship among key communication variables (the message, the method, the audience, and the context), a repertoire of communication strategies, and a dexterity or ease of access permitting the professional to adapt communication strategies to changing situations as necessary.

SNL 741
COMMUNICATION MODES I Communication Modes I

SNL 742
COMMUNICATION MODES II Communication Modes II

SNL 743
COMMUNICATION MODES III Communication Modes III

SNL 745
IMPROVING TEAM EFFECTIVENESS SEMINAR This seminar provides students with an opportunity to develop the Liberal Learning facilities through improving team effectiveness. Key concepts and models are explored regarding characteristics and dynamics of effectively functioning teams including patterns of group interaction, trust, openness, influence, conflict and decision-making. Strategies for both resolving (or minimizing) barriers to effective group effort and improving team functioning are addressed.
SNL 748
ASSESSMENT AND INTEGRATION SEMINAR II This session provides further opportunity to integrate and apply dynamics of reflective practice, self-assessment, liberal learning, and ongoing collaboration.

SNL 750
ORGANIZATIONAL AND INTERPERSONAL DYNAMICS This area addresses the human and structural issues that professionals encounter within practice (work) environments, providing students with the opportunity to consider how their professional role affects and is affected by systems, technology, structure and other people within their practice settings.

SNL 751
ORGANIZATIONAL AND INTERPERSONAL DYNAMICS I Organizational And Interpersonal Dynamics I

SNL 752
ORGANIZATIONAL AND INTERPERSONAL DYNAMICS II Organizational And Interpersonal Dynamics II

SNL 753
ORGANIZATIONAL AND INTERPERSONAL DYNAMICS III Organizational And Interpersonal Dynamics III

SNL 755
VALUING HUMAN DIFFERENCES SEMINAR This seminar provides students with an opportunity to develop the Liberal Learning facilities through valuing human differences. The origins, nature, and costs of prejudice and other barriers that interfere with the valuing of human differences are explored in and of themselves and in relation to the increasingly diverse workforce in today's organizations. In addition, through group discussions and interviews, students are provided with opportunities to gain a deeper understanding of their own prejudices and to develop a rationale for revaluing human differences in their own lives.

SNL 758
ASSESSMENT AND INTEGRATION SEMINAR III This session provides further opportunity to integrate and apply dynamics of reflective practice, self-assessment, liberal learning, and ongoing collaboration.

SNL 760
LARGER CONTEXTS This area addresses the issues and problems of the student's focus area within a context that includes at least one of the following: the historical development of the profession over time and its future direction (temporal); the relationship between the profession and the society within which it exists (social, multi-cultural); and/or, the nature of the profession globally (international).

SNL 761
LARGER CONTEXTS I Larger Contexts I

SNL 762
LARGER CONTEXTS II Larger Contexts II

SNL 763
LARGER CONTEXTS III Larger Contexts III

SNL 765
ENGAGING ETHICAL REASONING SEMINAR This seminar provides students with an opportunity to develop the Liberal Learning facilities through engaging ethical reasoning. A variety of ethical decision-making frameworks are explored as well as the nature and impact of ethical issues and questions pertinent to organizational contexts. Case studies are used to stimulate reflection on individual and societal moral values. In addition, particular attention is given to designing a personal model of ethical decision-making for application within various contexts.

SNL 770
ETHICAL ISSUES This area addresses the relationship between beliefs and assumptions regarding humanity, good/evil, right/wrong, etc., and behavioral outcomes (including conflicts).

SNL 771
ETHICAL ISSUES I Ethical Issues I

SNL 772
ETHICAL ISSUES II Ethical Issues II

ETHICAL ISSUES III Ethical Issues III

REFLECTION ON PRACTICE This area addresses the interplay between thinking, doing and reflecting in the often-ambiguous and complex contexts of daily practice.

EXERCISING EFFECTIVE LEADERSHIP SEMINAR This final seminar provides students with an opportunity to develop the Liberal Learning facilities through exercising effective leadership. Major themes of each of the previous seminars are integrated within the concept of effective leadership in a changing world. Key theories and principles relative to the management/leadership continuum are examined as well as the implications of current trends for the future of leadership both in general and within students' personal/professional contexts.

ASSESSMENT AND INTEGRATION SEMINAR IV This session provides further opportunity to integrate and apply dynamics of reflective practice, self-assessment, and liberal learning, as well as planning for program progress.

MASTER WORK PROPOSAL Master Work Proposal

FINAL MASTER WORK Final Master Work

SUPPLEMENTAL COMPETENCE I Student selects a second area from among Theories, Research, Skills, Communication Modes, Organizational/Interpersonal Dynamics, Larger Contexts, Ethical Issues, and Reflection on Practice in which to develop and demonstrate competence.

SUPPLEMENTAL COMPETENCE II As an option to the Integrating Project, student may elect to develop and demonstrate an additional four areas of professional competence from among Theories, Research, Skills, Communication Modes, Organizational/Interpersonal Dynamics, Larger Contexts, Ethical Issues, and Reflection on Practice.

SUPPLEMENTAL COMPETENCE III As an option to the Integrating Project, student may elect to develop and demonstrate an additional four areas of professional competence from among Theories, Research, Skills, Communication Modes, Organizational/Interpersonal Dynamics, Larger Contexts, Ethical Issues, and Reflection on Practice.

SUPPLEMENTAL COMPETENCE IV As an option to the Integrating Project, student may elect to develop and demonstrate an additional four areas of professional competence from among Theories, Research, Skills, Communication Modes, Organizational/Interpersonal Dynamics, Larger Contexts, Ethical Issues, and Reflection on Practice.

SUPPLEMENTAL COMPETENCE V As an option to the Integrating Project, student may elect to develop and demonstrate an additional four areas of professional competence from among Theories, Research, Skills, Communication Modes, Organizational/Interpersonal Dynamics, Larger Contexts, Ethical Issues, and Reflection on Practice.

GRADUATION REVIEW Graduation Review

INTEGRATING PROJECT PROPOSAL A concise, well-honed document that clearly delineates the student's readiness to engage in the Final Integrating Project as well as the project's nature and scope. The topic under investigation should be supported by relevant literature in the field and the use of appropriate methods of
Investigation should be supported by relevant literature in the field and the use of appropriate methods of inquiry.

**FINAL INTEGRATING PROJECT**

The Integrating Project is an original, independently conducted project that incorporates elements of theory, practice, knowledge, and skill and demonstrates integration of the Liberal Learning Skills with the professional Focus Area. It serves as the culminating Learning Activity of the program and is intended to make an original contribution to the student's professional field. The topic of the Integrating Project is chosen by the student with the approval of the Professional Advisor and the Mastery Review Committee and typically involves a practice-based problem with an appropriate intervention.

**PARENTING EDUCATION AND SUPPORT LEARNING PLAN RESEARCH AND DEVELOPMENT SEMINAR**

In this course students will learn about the purpose, scope, philosophy and processes of the Masters of Applied Professional Studies specifically customized for the field of parenting education and support (PES). The focus will be gaining a better understanding of the field and of the student as a learner and reflective practitioner. We will also review the history of parenting education and support from it's inception to its status today and to anticipation of future challenges in the field. Students will have an opportunity to assess their current knowledge and skills in the field, plan how to maximize learning within the customized program framework and identify a professional adviser uniquely able to work in collaboration with the student and faculty mentor of the program to achieve student goals.

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**Sociology**

Graduate Course Descriptions

**Sociology**

**SOC 401**

ADVANCED INTRODUCTION TO SOCIOLOGY A focused and intense introduction to the current state of the discipline of sociology: its basic concepts, theories, methodologies and research strategies. Students completing the course are expected to be able to engage successfully in the department's graduate program.

**SOC 402**

STATISTICS FOR THE SOCIAL SCIENCES Introduction to quantitative and statistical reasoning in the social sciences, quantitative data analysis, and computer software.

**SOC 403**

SOCIAL POLICY AND SOCIAL CHANGE Examines the process of policy-making and the effects of policies on individuals, organizations, and communities.

**SOC 405**

SOCIOLOGICAL PERSPECTIVES Examines sociological theories, methods and concepts through a study of the work of contemporary sociologists.

**SOC 411**

SOCIAL RESEARCH This course focuses on the logic of sociological inquiry, ethical issues of research, the various methods social scientists use, and research in applied settings.

**SOC 412**

DATA ANALYSIS (PREREQ(S): SOC 411) The implementation of a research project. Analytic techniques, data processing and the preparation of a written research report. (PREREQUISITE: SOC 411)

**SOC 413**

QUALITATIVE METHODS An examination of qualitative methods in sociology: data collection and analysis, field research, life histories, unobtrusive measures and visual methods employing video and film equipment are emphasized.
SOC 414  
LITERATURE REVIEW WRITING PROJECT (PREREQ(S): INSTRUCTOR'S CONSENT) This course requires students to complete a paper reviewing the sociological literature on a topic of their choice. Successful completion of the literature review paper is one of the ways in which students may fulfill the final project requirement leading to the master's degree. PREREQUISITE(S): Instructor's consent.

SOC 416  
APPLIED ANTHROPOLOGY (CROSS-LISTED AS ANT 316) (Cross-listed as ANT 316)

SOC 420  
URBAN SOCIOLOGY Introduction to advanced level studies in applied urban sociology: contemporary urban theory, research, and policy issues.

SOC 421  
URBAN ANTHROPOLOGY Theories and methods of contemporary anthropology are employed to analyze a variety of topics of urban phenomena including the process of urbanization, urbanism-urban culture, subcultures, ethnic life styles-and the notion of images of cities.

SOC 422  
URBAN AND COMMUNITY ANALYSIS (CROSS-LISTED AS MPS 573) (Cross-listed as MPS 573) Quantitative analysis of urban issues including social-area analysis, patterns of segregation, neighborhood change, and other selected topics.

SOC 423  
URBAN CULTURAL AREAS Ethnological approach to urban life stressing the qualitative analysis and evaluation of different types of urban communities, community organizations, and urban life styles.

SOC 424  
THE SOCIOLOGY OF HOUSING An in-depth approach of a major component of urban life with a focus on federal and local policies, programs and issues.

SOC 425  
STRATEGIES OF COMMUNITY ORGANIZATIONS Strategies and techniques used in the formation and process of community organizations.

SOC 426  
POLICIES AND URBAN DEVELOPMENT (Sequel to SOC 425) Community agencies viewed as problem-solving organizations. Concentration on the impact of state and local government on community organizations and how community organizations influence social policy.

SOC 430  
MEDICAL ANTHROPOLOGY (CROSS-LISTED AS SOC 319) (Cross-listed as SOC 319)

SOC 431  

SOC 432  
SOCIAL SERVICES IN CONTEMPORARY SOCIETIES (CROSS-LISTED AS SOC 323) Analysis of the concept of welfare, evaluation of the social organization of welfare and the problems of welfare service systems. The interrelationships between welfare and the family, employment, health and crime are explored.

SOC 433  
THE SOCIOLOGY OF EDUCATION Analysis of educational organizations and their effects-including characteristics of institutional structures, teaching as an occupation, and the relationship between educational attainment and social mobility.

SOC 434  
YOUTH SERVICES: HEALTH AND WELFARE Review of research on various youth problems (eg., substance abuse, pregnancy, runaways) and consideration of efforts at amelioration and control.

SOC 435
STRUCTURE OF HEALTH CARE ORGANIZATIONS A case study approach emphasizing the interaction of the clinical, administrative, and other components of the health care team, the formulation of policy, and the control and distribution of resources.

SOC 436
YOUTH SERVICE DELIVERY SYSTEMS Consideration of the current state of youth services in Illinois. Analysis of the administration of agencies and their programs: program design, the funding process, intervention strategies.

SOC 437
HEALTH CARE DELIVERY SYSTEMS (CROSS-LISTED AS MPS 537) Consideration of the current state of health care delivery in the United States, the growth and projected direction of health care in the future. Implications of national policy on local delivery; cross-national comparisons and economic conditions will be considered.

SOC 438
SOCIOLOGY OF SUBSTANCE USE & ABUSE Sociological perspectives on substance use and abuse, related high-risk behavior, drug traffic, community impact, and prevention and public policy.

SOC 440
LAW AND SOCIAL SCIENCE Analysis of the American legal system as an instrument of social control, social change, and social reform. The impact of social science research on public policy decisions.

SOC 442
CRIME, DELINQUENCY AND SYSTEMS OF CORRECTION Study of major criminological theories and their application to systems of corrections. Present trends at federal, state, city and private correctional institutions.

SOC 443
LAW AND ADMINISTRATION OF JUSTICE Analysis of legal systems and their implementation; jurisprudence and its role in the development and change of legal systems; role of the courts and the police as related to community social problems.

SOC 444
LAW ENFORCEMENT AND COMMUNITY RELATIONS Examination of the policies and practices of law enforcement agencies and personnel and their impact on the communities they serve.

SOC 446
LAW ENFORCEMENT POLICY ISSUES (CROSS-LISTED AS MPS 544) (Cross-listed as MPS 544) Examines the development, implementation, and evolution of formal and informal policies and procedures governing police agencies, correctional facilities, probation and parole systems, and the courts. Policy enactment on the "front lines" of law enforcement bureaucracies is emphasized.

SOC 447
SOCIAL CONTROL AND SOCIAL DEVIANCE Examines theories and research on the social organization of institutions that label and process deviants.

SOC 448
STREET GANGS Examines the problems associated with street gangs and "troublesome youth groups" in the United States and Europe. Classical and contemporary theories of gang formation and proliferation are reviewed. Both quantitative and qualitative research on gangs are studied. Gang reduction policies and programs (national and local) are scrutinized. Emphasis is placed on the street gang's relationship with other organizations and social actors in the same "habitat."

SOC 449
CRIMINAL ORGANIZATIONS The problem of organized crime in American society is examined. Both traditional and emerging groups are studies. The ethnic succession and alien conspiracy theories are reviewed. The importance of social structural influences for the development of criminal organizations is emphasized.

SOC 450
ADVANCED STATISTICS I (CROSS-LISTED AS PSY 410) Advanced Statistics I (cross-Listed As Psy 410)

SOC 455
CHILDHOOD, FAMILY, PUBLIC POLICY Examines contemporary public policy issues and relevant research
concerning parenting, marriage, household structure, and family formation, with a focus on the U.S.

SOC 460
SOCIOLOGY OF THE FAMILY Examines demographic trends in this century, recent literature on women and men, wives and husbands, children and parents. Some comparative material is included.

SOC 461
SOCIOLOGY OF YOUTH Critical analysis of literature on nondelinquent youth; focus on the social contexts within which the transition to adulthood occurs.

SOC 462
SOCIALIZATION Perspectives on the individual's acquisition of patterns of behavior and culture in social groups.

SOC 463
SOCIAL PSYCHOLOGY The influence of group life on personality development, social interaction, and social behavior.

SOC 464
SOCIAL INEQUALITY An analysis of inequalities in power, wealth and prestige with an emphasis on the concept of social class, trends in social mobility, and relationships to current social topics such as housing, welfare and political participation.

SOC 465
INTERGROUP RELATIONS Theoretical perspectives on racial, ethnic, gender, sexual orientation and differentially abled groups emphasizing processes of group formation, patterns of prejudice and discrimination, and an evaluation of methods to reduce prejudice and discrimination.

SOC 466
COLLECTIVE BEHAVIOR Study of social trends, social movements, communications, and crowd behavior. Emphasis on processes of social change, includes examination of historical and cross-cultural case material.

SOC 467
ORGANIZATIONS The functioning, premises, and consequences of formal organizations will be considered using a variety of perspectives.

SOC 468
SOCIAL DEVIATION (CROSS-LISTED AS SOC 304) Research and theory in the sociology of deviant behavior, emphasis upon such topics as the labeling of deviants, the analysis of deviant careers, patterns of deviant socialization, and the roles of agents or agencies of social control.

SOC 469
MIDDLE AGE AND AGING A look at the changing age composition of the population; meaning and societal definition of aging, the different types of responses to growing older, and the various social programs designed for the aged.

SOC 470
GENDER AND SOCIETY (CROSS-LISTED AS MLS 447 & WMS 460) Theory and research on roles of men and women, sexual behavior and patterns of gender inequality.

SOC 471
SOCIOLOGY OF KNOWLEDGE An analysis of the social forms of knowledge and the social processes by which individuals acquire this knowledge. The institutional organization and social distribution of knowledge.

SOC 472
SOCIOLOGY OF RELIGION An historical and contemporary analysis of the interrelationship between religion and society. Emphasis upon the sacred/secular and church-sect typologies, new religious movements and religion's contributions to societal values, beliefs and meaning systems.

SOC 473
THE DILEMMA OF THE MODERN AGE (CROSS-LISTED AS MLS 460) (Cross-listed as MLS 460) The crisis of the individual's place in society and in the world itself-the dilemma of modernity-is exposed through social science, philosophy, literature, art, and music. The distinctive features of and responses to modern culture-
individualism, alienation, and depersonalization are examined through the multiple perspectives that form the modern mind.

SOC 474
POPULATION PROBLEMS (CROSS-LISTED AS SOC 271) An examination of population related problems and issues facing nations today. Selected topics include comparative population policies and their societal implications, population control, mortality patterns, changing patterns of illness and epidemic disease, contemporary migration and refugee patterns and related national policies, and the societal responses to changing age structures.

SOC 475
WORK, LEISURE, AND THE QUALITY OF LIFE (CROSS-LISTED AS MLS 443) (Cross-listed as MLS 443) Examination of the nature, meaning and history of work and leisure in Western culture; and the relationship of work and leisure to issues associated with the contemporary concept of "quality of life".

SOC 476
WORK AND LEISURE IN THE FUTURE (CROSS-LISTED AS MLS 448) (Cross-listed as MLS 448) There has been a great change in the meaning, form and value assigned to work and leisure in society. Many of these changes have come to be characterized as inevitable consequences of life in post-industrial society. This course: 1) speaks to identify the factors that are shaping the future of work and leisure and 2) will explore futuristic scenarios that challenge the position of "work as a central-life meaning."

SOC 477
SEX, SEXUALITY AND POLITICS Focus on sexuality as one of the central organizing ideologies shaping the fabric of our social life. Topics covered include the medicalization of sex, sex and race, pornography, sex and globalization, and gay liberation movement, etc.

SOC 480
POPULAR CULTURE AND THE ARTS (CROSS-LISTED AS SOC 386) (Cross-listed as SOC 386) The course explores topics in popular culture and the arts from a sociological perspective. The focus includes specific arts (film, music, photography, etc), subcultures of artists and performers and the impact of the market on the arts and popular culture.

SOC 487
SOCIOLOGY OF CELEBRITY "Celebrities are known for being well-known." The course explores the role of media and fans in the making of celebrity and considers celebrity as a key feature of contemporary society.

SOC 490
AFRICAN-AMERICAN CULTURE (CROSS-LISTED AS SCG 450/LSE 450) (Cross-listed as SCG450/LSE450) Intended for teachers and students of society in order that they may examine the contributions of the African American community to American culture; gain a functional understanding of the social, economic and political development of blacks in America; gain an insight into problems created by racism and social construction of race.

SOC 491
AFRICAN-AMERICAN SOCIAL THOUGHT AND SOCIAL ACTION The course examines a unique African-American community-service tradition. This tradition embodied in a social thought perspective merges direct social action with intellectual ideas to improve conditions of America's black community. Contributions of social scientist and social activists will be used to demonstrate this perspective and to discuss sociology topics as community, race and social change.

SOC 493
VISUAL SOCIOLOGY A sociological view of documents that record social reality. These documents primarily include photographs but can also include paintings and sculpture.

SOC 495
SPECIAL TOPICS IN SOCIOLOGY Special courses will be offered as students and faculty identify selected topics of common interest.

SOC 498
INTERNSHIP (CROSS-LISTED AS SOC 398) (WRITTEN PERMISSION OF CHAIR REQUIRED) Students may be placed with agencies where they will have the opportunity to participate in activities such as research and counseling. Credit may vary but is subject to the limit of eight quarter hours.
SOC 499
INDEPENDENT STUDY (prereq)

SOC 500
THESIS RESEARCH The thesis research should culminate in the acceptance of a thesis proposal. Four quarter hours, one registration.

SOC 601
CANDIDACY CONTINUATION Required of all students who are not registered for regular courses but who occasionally utilize University facilities during completion of course requirements and/or research. Non-credit. $40.00 fee.

Spanish

Graduate Course Descriptions Spanish

Spanish

SPN 451
SPANISH IN THE U.S. An introduction to the varieties of Spanish spoken in the U.S. Includes code-switching, language maintenance and language policy. Graduate standing required.

SPN 452
SPANISH PHONOLOGY AND PHONETICS An in-depth study of the language's sound system and intensive pronunciation practice. Advanced knowledge of Spanish is a prerequisite. Graduate standing required.

SPN 497
SPECIAL TOPICS IN SPANISH See schedule for current offerings. Graduate standing required.
Graduate Course Descriptions ▸ T, U & V ▸ Teaching and Learning

Teaching and learning

T&L  400
CLINICAL EXPERIENCES WITH INFANTS AND TODDLERS (COREQUISITE: SCG 404) (1 quarter hour)  Students will observe and interact with infants and toddlers (25 clock hours).  Appropriate assessment methodologies will be emphasized.  COREQUISITE(S): SCG 404.

T&L  401
CLINICAL EXPERIENCES WITH YOUNG CHILDREN AND FAMILIES (COREQUISITE: HSC 409) (1 quarter hour)  Students will observe and interact with young children and their parents in parent training programs, parent conferences and home visits (25 clock hours).  They also will observe and work with families of young children with special needs.  COREQUISITE(S): HSC 409.

T&L  402
CLINICAL EXPERIENCES WITH PRE-SCHOOLERS (COREQUISITE: T&L 407) (1 quarter hour)  Students will observe and interact with preschool-age children (25 clock hours).  Appropriate early childhood curricula will be emphasized.  COREQUISITE(S): T&L 407.

T&L  403
CLINICAL EXPERIENCES IN PRIMARY GRADES (COREQUISITE: T&L 408) (1 quarter hour)  Students will observe and interact with primary-age children (25 clock hours).  Appropriate curricula for children in the primary grades will be emphasized.  COREQUISITE(S): T&L 408.

T&L  404
INTRODUCTION TO ELEMENTARY EDUCATION This is the first in a sequence of theory and practice courses that serves to familiarize teaching candidates with the world of the elementary school.  Through observation and participation in schools, self-reflection, independently created assignments, cooperative learning assignments and classroom discussion, candidates will acquire familiarity with schools and classrooms including: social/cultural context, classroom climate, classroom management, curricular coherence, standards-based instruction, and the promotion of critical thinking.  (20 daytime fieldwork hours are required; recommended that candidates enroll concurrently in SCG 403.)

T&L  405
PROFESSIONAL PRACTICE IN SECONDARY SCHOOLS (FORMERLY CDG 405) This course is an introduction to the professional world of secondary school teaching.  In this course students develop the knowledge and skills for being a reflective practitioner.  Students focus on understanding themselves and their behaviors in teaching situations with adolescents in schools.  These insights combined with subject matter knowledge guide the development of a curriculum unit that integrates planning skills, teaching strategies, classroom management and evaluation techniques.  In addition to this class, daytime clinical hours as scheduled by the instructor are required as part of this course.

T&L  406
LANGUAGE DEVELOPMENT OF THE YOUNG CHILD (COREQUISITE(S): SCG 404) Overview of the development of language in young children.  Attention is devoted toward issues of relating to second language learners and young children with special needs.  Includes techniques and materials for use in assessing and assisting this development.  COREQUISITE(S): SCG 404.

T&L  407
PREPRIMARу PROGRAMS: CURRICULUM AND STRATEGY (PREREQUISITE(S): SCG 404.  COREQUISITE(S): T&L 402) Students will plan, implement and evaluate activities that promote the physical, emotional, social, spiritual, and cognitive development of preschool children from diverse cultural and socioeconomic backgrounds.  Methods of 1) facilitating children's play; 2) individualization through building on children's experiences, learning styles and interests; 3) using media; and 4) developing learning centers will be emphasized.  Assessment practices are incorporated in this experience.  PREREQUISITE(S): SCG 404.
T&L 408
CURRICULUM AND INSTRUCTION IN PRIMARY GRADES (PREREQUISITE(S): SCG 404. COREQUISITE(S): T&L 403)
This course provides an examination of the objectives, content, methods and materials used in the primary grades of elementary schools. A variety of teaching methods and classroom management strategies will be discussed and illustrated, including teacher-led instruction and student-centered instruction. Students will be encouraged to reflect upon their own emerging educational philosophies and teaching styles as they take part in laboratory and clinical experiences. Many opportunities for planning, using and evaluating a variety of teaching methods will be offered. Each student will prepare one teaching unit on a primary social studies theme. Appropriate tests and assessment are included. PREREQUISITE(S): SCG 404. COREQUISITE(S): T&L 403.

T&L 409
PROFESSIONAL PRACTICE IN ELEMENTARY SCHOOLS (FORMERLY CDG 409) This course is an introduction to the professional roles required of elementary school teachers. Students will develop a knowledge-based framework for considering the many factors involved in decision-making in an elementary classroom. This framework will serve to guide students as they create a social studies curriculum unit, which integrates planning skills, teaching strategies, classroom management and evaluation techniques. Daytime clinical hours are required during this course.

T&L 410
CHILDREN’S LITERATURE AND FAMILY LITERACY This course focuses on ways that families foster literacy in young children through word play, story telling, and conversations with infants, toddlers, preschoolers, and primary-aged children. The course also addresses formal literacy development by families and early childhood programs. Finally, the course features appropriate poetry, early books for infants and toddlers, read-aloud materials, and all genres of children's literature for young children.

T&L 411
ASSESSMENT IN EARLY CHILDHOOD (PREREQUISITE(S): SCG 404) Students will research, use, and critique a variety of assessment methods and tools appropriate for use with young children from diverse cultural and socioeconomic backgrounds. Ways of involving parents, families, and other educational stakeholders in the assessment process will be emphasized. Formative and summative techniques, reporting procedures, and management processes will be evaluated. Naturalistic assessment techniques for use in group, family system, or one-on-one situations will be explored. PREREQUISITE(S): SCG 404.

T&L 412
EMERGING READING AND LANGUAGE ARTS (PREREQUISITE(S): T&L EE MAJORS T&L 409; T&L ECE MAJORS T&L 408) This course focuses on the instruction, assessment of and subsequent instruction related to emergent literacy development. Individual student strengths and needs will be addressed through theories and practices related to both code instruction and meaning-oriented approaches to literacy. Optional field experiences will provide students with opportunities to analyze theories, as well as to observe and practice strategies, and to make informed instructional decisions. The role of the home in fostering literacy development is stressed, along with ways to build home-school literacy connections. PREREQUISITE(S): For T&L EE majors prereq is T&L 409; for T&L ECE majors prereq is T&L 408.

T&L 413
READING/LANGUAGE ARTS IN THE MIDDLE GRADES (PREREQUISITE(S): T&L 412) This course extends Emerging Reading and Language Arts to facilitate increased independence in students as strategic readers and competent writers. It focuses on the further development of reading comprehension and writing abilities in the intermediate grades and middle school. Emphasis will be placed on using narrative and expository text and mixed genres related to content-area instruction. PREREQUISITE(S): T&L 412.

T&L 414
LITERACY IN THE SECONDARY SCHOOL (PREREQUISITE(S): T&L 405) This course is designed to acquaint students with the literacy strategies that are essential at the secondary level. There will be an emphasis on the interrelationship of all aspects of language, oral and written, that results in literacy as an epistemic engagement -- a meaning-making tool in the construction of knowledge. The course will discuss specific aspects of literacy process in general but will focus on developmental reading skills within the context of the varied cultural and ethnolinguistic characteristic of urban secondary classrooms. Students will become acquainted with a wide range of literacy-teaching strategies, including reading comprehension, literature-group discussion, research, and study strategies, to be applied across a variety of learning situations and text types. PREREQUISITE(S): T&L 405
T&L  415
TEACHING AND LEARNING ELEMENTARY SCHOOL SCIENCE (FORMERLY CDG 415) (PREREQUISITE(S): T&L 409)
Teaching and Learning Elementary School Science. An introduction to materials, methods and strategies for
helping students in grades K-8 become scientifically literate: ie., to understand the nature of science and its
impact on technology and science. Particular attention will be given to theoretical views about how children
learn science, the proper use of materials and equipment, the development of scientific thinking, e.g., skills in
observing, classifying collecting, and interpreting data, questioning strategies, and ways to assess student
progress. Daytime clinical hours are required during this course. PREREQUISITE(S): T&L 409.

T&L  416
TEACHING AND LEARNING ELEMENTARY SCHOOL MATHEMATICS (FORMERLY CDG 416) (PREREQUISITE(S): T&L
409) An introduction to materials, methods, and strategies for helping students in grades K-8 become
mathematically literate: ie., for helping elementary students to value mathematics, to become confident in
their mathematical abilities, to attack and solve mathematical problems, and to reason and communicate
mathematically. Particular attention will be given to the theoretical views about how children learn
mathematics, the proper use of manipulative materials, the development of mathematical thinking, e.g.,
skills in estimation, pattern recognition, or special perception; the use of technology, and ways to assess
student progress. Clinical hours required. PREREQUISITE(S): T&L 409.

T&L  417
CURRICULUM IN LANGUAGE COMMUNICATIONS (FORMERLY CDG 427) (formerly CDG 427)

T&L  418
LEARNING THROUGH THE ARTS (FORMERLY CDG 418) This course focuses on the arts (drawing from visual
arts, music, drama and dance) as an integral component of teaching and learning in the elementary school
curriculum. Students will 1) be exposed to a diverse body of artistic forms, functions and disciplines to
develop a critical, aesthetic and visual working vocabulary; 2) acquire an understanding and skill in helping
children identify and use various mediums to explore thoughts and reveal impressions of their experiences;
and 3) design, construct and implement creative, interdisciplinary activities that places a value on the arts
through the languages of discipline-based art education and multi-intelligences. Daytime clinical hours are
required during this course. PREREQUISITE(S): T&L 409.

T&L  419
CURRICULUM AND STRATEGIES: SOCIAL STUDIES (FORMERLY CDG 419) Materials, methods and classroom
management techniques appropriate for teaching social studies in the elementary grades; disciplines included
are history, geography, anthropology, political science, economics and sociology. Topics will include
cooperative group learning, questioning skills, role-playing, citizenship education, value development,
program planning and evaluation.

T&L  420
MATH AND SCIENCE IN EARLY CHILDHOOD (PREREQUISITE: SCG 404, T&L 408) Students will explore
theoretical principles, materials, methods, and activities for teaching and integrating mathematics and
science in preschool and primary grades. Students will conduct clinical observations and complete
individualized teaching assignments. PREREQUISITE(S): SCG 404 and T&L 408.

T&L  421
CHILDREN, FAMILY AND MULTICULTURAL COMMUNITY This course focuses on the development of the child
from infancy through early childhood, within the context of the particular family and culture in which the child
is being raised. Social systems, psychodynamic and developmental theories will be utilized in this course.
Emphasis will be placed on the unique role the varying family structures, cultural norms and community
environments can play in the growth and development of the child. Particular attention will be paid to the
challenges faced by teachers and other professionals in early intervention in assessing children's needs and
providing services, which are reflective of the child's development within his/her cultural and community
context. Emphasis will be on building those family, institutional and community partnerships that will support
the healthy growth and development of young children, in the IFSP planning process. COREQUISITE(S): T&L
401 for ECE and T&L students. (Course replacing HSC 409)

T&L  422
CLASSROOM ASSESSMENT Candidates will study, use, and evaluate assessment methods and tools that are
appropriate for elementary-aged children with diverse cultural and socioeconomic experiences. Assessment as
part of the instructional system will be discussed, including the appropriate use of standardized measures,
formal and informal classroom assessment, portfolio development, as well as reporting to all stakeholders.
Ways of involving students and parents in the assessment processes will be stressed. How to observe and assess children individually and in classroom settings will be included. Technology applied to assessment will be emphasized. Prerequisites: SCG 403, T&L 404, and one Curriculum and Strategies course (e.g., T&L 412, T&L 415).

T&L 423
UNDERSTANDING YOUNG CHILDREN’S BEHAVIOR This course focuses on understanding children’s observable behaviors and environmental and biological factors, which effect young children’s behaviors (ages birth through 8). The course will provide students with techniques to identify and effectively address negative behaviors in young children. General classroom management techniques will also be examined. Completing 15 hours of field experience in an early childhood special education setting is part of this course’s requirements.

T&L 424
INTRODUCTION TO SECONDARY EDUCATION This course is an introduction to the DePaul Secondary Education program as well as the professional world of secondary school teaching. In this course, candidates develop the knowledge and skills necessary for being a reflective practitioner. Candidates focus on understanding themselves (professional identity) and their behaviors in teaching situations with students in schools. These insights, combined with subject-matter knowledge, guide the development of various course assignments. Candidates will learn how to observe effectively in a school setting, to identify school governance issues, to understand school environment and the current social issues that shape it, and will experience a variety of teaching methods and resources for their future teaching. Candidates will acquire knowledge of important social concepts and theories that affect education, especially as they affect educational change in urban societies. As candidates become aware of differences in individual, ethnic, and cultural group attitudes, values and needs, they also will learn to recognize the complexities of teaching and learning in a pluralistic society. Candidates will be committed to teaching as a responsible professional who acts ethically as well as in a collegial fashion. In addition to class attendance, candidates are required to complete 30 daytime fieldwork hours as part of the course. This course is a prerequisite to T&L 425. It is highly recommended that this course be taken concurrently with SCG 406.

T&L 425
CURRICULUM AND INSTRUCTION IN SECONDARY EDUCATION This course will examine materials, methods, and techniques appropriate for teaching in secondary schools. Topics include writing instructional objectives, developing lesson plans, designing a curriculum unit, understanding classroom management and assessment related issues. Students will be encouraged to reflect upon their own emerging educational philosophies as well as draw from previous courses they have taken. Students will be given many opportunities for planning, using and evaluating a variety of instructional strategies while preparing and teaching a micro lesson in front of their peers. Students will be committed to teaching as a professional acting responsibly, ethically, and collegially in accordance to Vincentian Personalism. Prerequisite course: T&L 424

T&L 426
TEACHING WRITING (PREREQUISITE(S): T&L 405) Prepares for teaching writing and composition at the middle and secondary school levels. The course focuses upon methods of teaching composition, examination of literature and research about the composing process, the development of language and reading skills, and the assessment and evaluation of writing. The development of writing curriculums will also be explored. PREREQUISITE(S): T&L 405.

T&L 427
YOUNG EXCEPTIONAL CHILD This course introduces students to the field of early childhood special education including the Early Intervention System. Characteristics of infants, toddlers and young children with special needs are examined in this course. Methods of working with different disabilities during early years will be explored. Strengths and needs of families of young children with disabilities and collaboration with family members will be emphasized in this course. Completing 15 hours of field experience in an early childhood special education setting is a part of this course’s requirements.

T&L 428
TEACHING LITERATURE (PREREQUISITE(S): T&L 405) Prepares for teaching literature at the middle and secondary school levels. Examines contemporary issues in the teaching of literature, explores methods of teaching major literary genres, addresses problems of literacy and focuses on the transactional nature of reading and writing. Emphasis on developing a repertoire of ways of teaching literature and a variety of literature curriculums. PREREQUISITE(S): T&L 405.

T&L 429
TEACHING YOUNG ADULT LITERATURE (PREREQUISITE: T&L 405) This course is devoted to the study of Young Adult Literature: an exciting, emerging field. Issues and ideas to be examined include the following: current debates regarding issues in curriculum and teaching; selecting, reading, evaluating, and teaching young adult literature; cultivation of life-long reading habits and literacy development. Students will become familiar with major writers of young adult literature, read diverse texts, explore major genres, review award winning novels, consider the role of the media, and develop creative projects. PREREQUISITE(S): T&L 405.

T&L 435
TEACHING, LEARNING, AND ASSESSING MIDDLE SCHOOL MATHEMATICS

T&L 436
TEACHING AND LEARNING SECONDARY SCHOOL MATHEMATICS (PREREQUISITE(S): T&L 405) Prepares for teaching mathematics at the middle school and secondary school levels. Examines contemporary issues in teaching mathematics, methods of teaching secondary mathematics, and recent history in mathematics curriculum development of alternative teaching strategies and the implementation of the NCTM Standards. Lesson and unit development, evaluation and classroom management also will be discussed. PREREQUISITE(S): T&L 405.

T&L 439
METHODS OF SECONDARY SCIENCE EDUCATION (CROSS-LISTED AS SE 339) (PREREQUISITE(S): T&L 405) This course is designed to update teachers in the methods of teaching science. This involves reviewing the processes of science, theories of learning, and instructional strategies appropriate to laboratory science. This course also provides an update on the current trends and issues in science education as well as an analysis of successful science curricula programs. PREREQUISITE(S): T&L 405.

T&L 449
TEACHING MODERN LANGUAGES (CROSS-LISTED AS SE 349/MOL 349) (PREREQUISITE(S): T&L 405) Prepares for teaching modern languages at the middle and secondary school levels. Examines the theory and practice of teaching modern languages with an emphasis on developing alternative teaching strategies and using diverse resources. Lesson and unit development, evaluation and classroom management will also be discussed. PREREQUISITE(S): T&L 405.

T&L 453
TEACHING HISTORY AND SOCIAL SCIENCE IN SECONDARY SCHOOLS (PREREQUISITE(S): T&L 405) Teaching, History and Social Science in Secondary Schools. Prepares for teaching history and social sciences at the middle and secondary school levels. Examines the nature and purpose of history and social sciences curriculum within secondary schools, the current status of social studies materials and practices, and issues confronting today's secondary social studies teachers. Emphasis on alternative teaching strategies, resources for teaching and learning, teachers' responsibilities in curriculum development and decision-making, and methods and materials for addressing cultural diversity. Lesson and unit development, evaluation and classroom management also will be discussed. PREREQUISITE(S): T&L 405.

T&L 454
CONTEMPORARY METHODS IN THE TEACHING OF GEOGRAPHY

T&L 455
READINGS IN AMERICAN HISTORY Prepares students for teaching American history at the secondary level. Readings focus on the foundational texts of American history from the colonial era to the late 20th century, with an emphasis on gaining content knowledge and applying it to teaching in the secondary classroom. Class discussions focus on matters of interpretation, evidence, and historiography.

T&L 457
TEACHING ECONOMIC GEOGRAPHY (FORMERLY CDG437) (formerly CDG 437)

T&L 458
TEACHING ECONOMIC HISTORY (FORMERLY CDG438) (formerly CDG 438)

T&L 459
TEACHING THE ECONOMICS OF GOVERNMENT (FORMERLY CDG439) (formerly CDG 439)

T&L 460
INSTRUCTIONAL TECHNOLOGY FOR ALL STUDENTS With current theories and research about student learning and instructional technology, it examines how students interact with technology, what technologies are
available to help students learn, issues related to technology access, and how to evaluate existing and emerging technology. Students will examine in detail technologies associated with their particular content area. In addition to the assignments given, many demonstrations of classroom software will occur during the course. Students are assumed to have a general familiarity with computers, Internet use, e-mail, and productivity (office) software and a basic understanding of student learning and issues in education. Prerequisite: Introduction to computers or instructors permission.

T&L 465
VISUAL ART EDUCATION I: HISTORIES OF LOOKING This course surveys the trajectory of visual thoughts and explores strategies in art production and distribution (e.g., documents, writing, and practice) used by artists, art educators, and visualists. This course examines the visual arts in and out of space where learning occurs and explores the (in) effectiveness of the visual arts when intersected with pedagogical practices. The course presents a foundation in the social, historical, cultural, and political influences on visual thinking and explores the interpretation of visual production as language, information, curriculum, activism, design, and new media within multiple working spaces. Site visits required. (Prerequisite: T&L 405).

T&L 466
VISUAL ARTS II: PEDAGOGY This course investigates strategies for creative enterprise and visual studies and includes art projects and site work, reading, investigations, multi-media projects and writing. Through the use of various media and technologies, students explore methods for teaching, authoring, and/or collaborating in preparing visual arts curriculum. The course explores teaching practices in space where technology, youth, and social and educational elements intersect. Teaching practices within diverse settings are considered as well as the contribution of artists, writers, place makers, teachers, designers, and cultural workers. Site visits are required. (Prerequisite: T&L 405).

T&L 525
READING, WRITING, AND COMMUNICATING ACROSS THE CURRICULUM (WAS CDG 525) (formerly CDG 525) This course analyzes the relationships among reading, writing, speaking and listening. It encourages middle level and high school teachers in all disciplines to take these interrelationships into account and to plan curricula that include current teaching strategies to enable students to become better readers, writers and thinkers in their various content-areas. This course will also concentrate on group process and its role in effective teaching within and across content-areas. Language use, learning and teaching are considered from a multicultural perspective.

T&L 585
ELEMENTARY STUDENT TEACHING (PERMISSION REQUIRED) (FORMERLY CDG 585) (formerly CDG 585) (6 quarter hours) Students will be placed for a minimum of 12 weeks in an elementary school. Seminar will meet once a week, in the participating schools and/or at DePaul. At first, they will focus on issues of immediate concern to student teachers. As the students gain experience the seminar will examine six or eight classroom issues, that is, topics which students have found to be significant on the basis of their experience. These would include such things as assessment, evaluation, classroom management, curriculum planning, and relationships with colleagues. After delineating what the issues are, students would be expected to analyze and discuss readings which relate to the issues. PREREQUISITE(S): Application and approval required. Open only to DePaul student.

T&L 586
ELEMENTARY STUDENT TEACHING SEMINAR COREQUISITE(S): T&L 585

T&L 588
INDEPENDENT STUDY IN TEACHING AND LEARNING (PERMISSION REQUIRED) PREREQUISITE(S): Permission of instructor, program chair and associate dean.

T&L 589
THESIS RESEARCH IN TEACHING AND LEARNING (PREREQUISITE(S) SCG 410 & PERMISSION REQUIRED) A student writing a thesis registers for this course for four quarter hours of credit. Where the thesis research and the writing of the thesis itself are prolonged beyond the usual time, the program advisor may require the student to register for additional credit. PREREQUISITE(S): SCG 410 and approved thesis proposal.

T&L 590
SECONDARY STUDENT TEACHING (FORMERLY CDG 590) (PREREQUISITE(S): PERMISSION REQUIRED) (formerly CDG 590) (6 quarter hours) Students will be placed for a minimum of 12 weeks in a secondary school. Seminar will meet once a week, in the participating schools and/or at DePaul. At first, they will focus on issues of immediate concern to student teachers. As the students gain experience the seminar will examine six or
eight classroom issues; that is, topics which students have found to be significant on the basis of their experience. These would have found to be significant on the basis of their experience. These would include such things as assessment, evaluation, classroom management, curriculum planning, and relationships with colleagues. After delineating what the issues are, students would be expected to analyze and discuss readings which relate to the issues. PREREQUISITE(S): Application and approval required. Open only to DePaul student.

T&L  591
SECONDARY STUDENT TEACHING SEMINAR COREQUISITE(S): T&L 590

T&L  595
EARLY CHILDHOOD STUDENT TEACHING (PERMISSION REQUIRED) (6 quarter hours) Five school days a week of supervised teaching in a cooperating school for an academic quarter. Part of the teaching will be in a preprimary setting and part will be in a primary setting. Feedback and discussion of problems encountered in student teaching as well as new materials and techniques of student teaching will be included. PREREQUISITE(S): Application and approval required. Open only to DePaul students.

T&L  596
EARLY CHILDHOOD STUDENT TEACHING SEMINAR COREQUISITE(S): T&L 595

T&L  600
REGISTERED STUDENT IN GOOD STANDING (0 credit) This registration is required of all students who are not enrolled in a course but are completing course requirements and/or research. It provides access to University facilities. $50 per quarter. PREREQUISITE(S): Non-Credit Course.

T&L  606
REVIEW OF LITERATURE This paper will give students the opportunity to develop and demonstrate written competence in a subfield of their disciplines and to enhance life-long learning. Specifically, they will broaden their knowledge base and inform themselves about a topic, issue, theory, etc., reviewing and synthesizing existing literature. To do so, students will need a variety of bibliographic skills including searching data bases.

T&L  607
INTEGRATIVE PAPER Students will observe and/or participate in the reciprocal interaction of theory and practice, by investigating actual practice in the field as it relates to theory. This might take the form of investigating how a particular theory is applied in the field, developing a practical application of a theory, or, conversely, developing/refining a theory based on investigations made in the field. In other words, as graduates encounter new theories and practices they will need to be able to investigate and evaluate them, asking and answering questions about "how theories work."

T&L  610
INDUCTION INTO THE TEACHING PROFESSION: ELEMENTARY (PREREQ: STUDENT TEACHING & PRACTICING TEACHER) (formerly CDG 426) This course is designed to assist first-year elementary teachers to make the transition from student of teaching to teacher. The course creates a bridge between first-year teachers' formal education and the realities of their classrooms. In particular, the course provides assistance with the following: 1) understanding their induction into the profession; 2) analyzing their new educational contexts; 3) actualizing their educational philosophies; 4) developing their pedagogical knowledge; and 5) identifying and making the most of professional support systems within their schools. Prerequisite: Completion of student teaching or practicing teacher. PREREQUISITE(S): Student teaching and practicing teacher.

T&L  611
INDUCTION INTO THE TEACHING PROFESSION: SECONDARY (WAS CDG 611) (PREREQUISITE(S): T&L 590) (formerly CDG 611) This course is designed to assist first-year secondary teachers to make the transition from student of teaching to teacher. The course creates a bridge between first-year teachers' formal education and the realities of their classrooms. In particular, the course provides assistance with the following: 1) understanding their induction into the profession; 2) analyzing their new educational contexts; 3) actualizing their educational philosophies; 4) developing their pedagogical knowledge; and 5) identifying and making the most of professional support systems within their schools. Prerequisite: Completion of student teaching or practicing teacher. PREREQUISITE(S): T&L 590 or practicing teacher.

T&L  612
CRUTICAL REFLECTION TEACHING AND CLASSROOM PRACTICE (formerly CDG 612) This course is designed to help practicing teachers learn more about their own teaching. They will be asked to raise, formulate and
pursue questions about their own teaching and its relationship to student learning. In following this line of investigation, teachers study whole classrooms as well as select individuals. Teachers will enhance such skills as observing, listening, reflective and analyzing through employing techniques like clinical interviews, videotapes and lesson analysis. The course culminates with a paper that address what the teacher has learned about his/her own teaching and the nature and development of human learning. Prerequisites: being a first year teacher. PREREQUISITE(S): Student teaching, T&L 610 or T&L 611, and being a first-year teacher.

T&L 613
NEGOTIATING CURRICULUM IN THE CLASSROOM (PREREQUISITE: STDNT TCH, T&L 610 OR 611, FIRST YR TCH)
This course assumes that teachers are curriculum developers, not simply implementors of curriculum provided by tests and curriculum guides. It asks teachers to examine how written curricula are enacted in the classroom, highlighting the students' role in the process. They will be expected to follow a line of investigation based on gathering data from students prior to, during, and after implementation. This course culminates with a more refined piece of curriculum, as well as a paper that addresses the teacher's growth in understanding curriculum processes. PREREQUISITE(S): Student teaching, T&L 610 or T&L 611, and being a first-year teacher.

T&L 614
INDUCTION INTO THE TEACHING PROFESSION: EARLY CHILDHOOD This course is designed to assist first-year early childhood teachers to make the transition from student teaching to teacher. The course creates a bridge between first-year teachers' formal education and the realities of their classrooms. In particular, the course provides assistance with the following: 1) understanding their induction into the profession; 2) analyzing their new educational contexts; 3) actualizing their educational philosophies; 4) developing their pedagogical knowledge; and 5) identifying and making the most of professional support systems within their schools. PREREQUISITE(S): Completion of student teaching or practicing teacher.

T&L 615
SPECIAL TOPICS IN TEACHING AND LEARNING Current issues and problems in education will be discussed. Focus will be current research and best practice. Prerequisite: 30 quarter hours in graduate education.

T&L 616
SPECIAL TOPICS IN INDUCTION TO TEACHING AND LEARNING:CLASSROOM ASSESSMENT Current issues and problems in classroom-based assessment is the concentration of this course. Activities and discussion will include teacher-made paper and pencil assessment, linking assessment to planning and instruction, test-preparation, performance assessment, grading, and interpretation of standardized tests. Focus will be current research and best practice. Prerequisite: 30 quarter hours in graduate education.

Telecommunications

Graduate Course Descriptions

Telecommunications

TDC 425
VOICE/DATA NETWORK FUNDAMENTALS This course covers a variety of fundamental topics in voice and data networking, including the structure of the public switched network, voice carrier services and premise equipment, Internet protocols and applications, and LAN applications and configuration. PREREQUISITE(S): Graduate Standing.

TDC 432
COMPUTER & INFORMATION SYSTEMS MODELING Simulation, analytic modeling, and measurement of computer and information systems. Operational analysis. Introduction to queuing theory. PREREQUISITE(S): IT223 AND MAT 151 AND TDC 463.

TDC 460
FOUNDATIONS OF COMMUNICATIONS SYSTEMS Details of communications systems architectures, including PSTN, broadcast, CATV, WANs, MANs, LANs, PANs, cellular, satellite, etc. Communications systems protocol
models. Foundations of transmission media, signaling, coding, error detection and correction, addressing, routing, data compression, and access protocols. Network interfaces. Prerequisites: (TDC311 or CSC373) and (IT263 or TDC361).

TDC 461 BASIC COMMUNICATION SYSTEMS A history of telecommunications and regulatory and regulatory agencies. The basic communication model and its application to different communication systems, communication models. The telephone architecture, a typical data communication system, common carrier services, mediums and their characteristics. PREREQUISITE(S): PHY 405 and TDC 411 are recommended.

TDC 462 DATA COMMUNICATIONS Theory and components of data communication systems, modes, codes, and error detection techniques for data transmission, network protocols and line control procedures, communication carrier facilities and system planning. PREREQUISITE(S): TDC 411 or CSC 345, MAT 145, CSC 323.

TDC 463 COMPUTER NETWORKS AND DATA SYSTEMS A detailed discussion of the upper layers of network architectures. Network protocol organization will be discussed using TCP/IP as an example. IP addresses, subnetting, supernetting, and CIDR. Routing algorithms. Transport layer protocols. Application layer protocols. Introduction to IPv6. PREREQUISITE(S): IT263 or TDC361 or TDC425 or ECT425.


TDC 476 ECONOMICS OF TELECOMMUNICATION SYSTEMS Inventory concepts, asset amortization. Liabilities. Consolidated statements, cost accounting. Capital budgeting, investment decisions. PREREQUISITE(S): TDC 460.

TDC 477 NETWORK SECURITY Network infrastructure security issues, including perimeter security defense, firewalls, Virtual Private Networks, Intrusion Detection Systems, wireless security, network security auditing tools and ethical considerations. Strategies for the deployment of "Defense-In-Depth" mechanisms in an enterprise computing environment. Pre-requisite(s): TDC 463 Computer Networks or consent from instructor (CNS 340 Foundations of Information Assurance recommended).

TDC 489 QUEUING THEORY WITH COMPUTER APPLICATION An overview of queuing theory. Queuing systems, related random processes, classification of queues. Priority queueing. Computer time sharing and multi-access systems. PREREQUISITE(S): TDC 432 or consent.

TDC 511 TELECOMMUNICATIONS PRACTICUM Introduction to the functionality and management of voice and data communications equipment in the Telecommunications and Local Area Networks laboratories. Emphasis will be on practical understanding and experience through laboratory exercises. PREREQUISITE(S): TDC 463.

TDC 512 CELLULAR AND WIRELESS TELECOMMUNICATIONS An overview of cellular telephony including regulatory framework, RF design and frequency reuse, signaling and wireline interconnection issues. Personal Communications Systems (PCS), mobile radio, satellite and paging systems will also be considered. PREREQUISITE(S): TDC 464.

TDC 514 COMPUTER TELEPHONY A study of enabling technologies allowing the integration of voice communications services with personal computers, LANs and mainframes. Telephony programming interfaces, call management software, intelligent fax/data retrieval and interactive voice response systems will be considered. PREREQUISITE(S): TDC 463 and TDC 464.

TDC 531 EMERGING WIRELESS AND MOBILITY NETWORKS A study of evolving 2.5, 3rd & 4th Generation Wireless Networks, and disruptive technologies like WiFi(802.11), WiMax, Bluetooth, RFID, Ultra-Wideband and the
security implications mobility networks. This course provides a balanced view of the Wireless Industry in transition, through evolving technology, regulation, competition and standards. Students will be better prepared to deal with the rapid changes and seize the opportunities as data mobility impacts traditional telecommunications and private networks. In addition students will have access to extensive Global Wireless Education Consortium materials to support their individual advanced interests. PREREQUISITE(S): IT263 or TDC361

TDC 532
WIRELESS SYSTEM ENGINEERING AND DEPLOYMENT An exploration of topics that were introduced in the prerequisite TDC 512 (‘Cellular and Wireless Communications’). This course presents an in-depth focus on radio frequency (RF) theory; RF propagation issues; antenna propagation theory; propagation modeling; and base station power plant and battery systems. GSM and CDMA digital wireless standards / technologies will be covered in detail. A course project is required, where student teams will develop a detailed business plan for overlaying GSM technology onto a legacy, IS-136 (TDMA) wireless network. PREREQUISITE(S): TDC 512

TDC 561
NETWORK PROGRAMMING The course covers the basic and advanced issues of TCP/IP networking programming such as multiple processes, I/O multiplexing, multi-threaded processes, multicasting and secure network programming USING C/C++. Application examples such as Internet browsing, instant messaging, proxy filtering and file transfer protocols are discussed. PREREQUISITE(S): (CSC309 or CSC262) and (TDC463 or SE435).

TDC 562
COMPUTER-COMMUNICATION NETWORK DESIGN & ANALYSIS This course provides an in-depth study of Internet protocols from the perspective of network planning, simulation and troubleshooting. The course includes in-depth study of Internet traffic, traffic measurement techniques, network planning and simulation using simulation tools, and packet management techniques. PREREQUISITE(S): TDC 463.

TDC 563
PROTOCOLS AND TECHNIQUES FOR DATA NETWORKS Advanced topics in TCP/IP including IPv6, TCP traffic control, routing protocols, multicast routing protocols, and upper layer protocols supporting Quality of Service (QoS) in the new generation of the Internet; compression techniques; introduction to SNA and APPN, SNA and TCP/IP integration. PREREQUISITE(S): TDC 463.

TDC 564
LOCAL AREA NETWORKS A detailed discussion on LAN technologies, including standards, protocols, network equipment, design, deployment, and management. The focus is on Ethernet as specified in IEEE 802.3 (10M to 10G) as well as other IEEE specifications such as IEEE 802.1 (bridging), 802.11 (Wireless LAN), and their extensions. The course also introduces applications of LAN technology, such as Metro LAN and ATM LAN. PREREQUISITE(S): TDC 463.

TDC 565
VOICE AND DATA INTEGRATION Exploration of integrated voice and data networks with the focus on Voice over IP (VoIP) networks and services. The course starts with an overview of current voice and data networks and presents the driving forces leading to a converged network. Student will learn the overall VoIP architecture for enterprise and carrier networks, new services (such as unified message service), and network components (such as IP phone, call manager, and media gateway). The course seeks a balance of theory and practice where students will learn interworking protocols, such as H.323, SIP, and SS7 over IP, and use a packet sniffer to capture and analyze VoIP traffic. Other topics covered are vocoding, QoS, traffic engineering, and measurement of voice quality. Prerequisite: TDC 463 and TDC 464

TDC 566
BROADBAND ACCESS TECHNOLOGIES This course studies internetworking technologies between the private intranet and public internet, and it is also known as Wide Area Network (WAN) technologies. The course starts with the narrowband technologies such as ISDN and X.25 to help students learn WAN from a historical perspective. After that, student will learn the current broadband technologies, including leased lines (T1 to OC-x), Frame Relay, ATM, and DSL. The next topic is the emerging broadband technologies such as Wireless (WiFi and WiMax) and Multi-Protocol Label Switch (MPLS). Remote access is an integral component of WAN and it covers dial-up and virtual private network (VPN). The course also covers the issues of WAN design, engineering, and management. (Prerequisite: TDC463)

TDC 567
TELECOMMUNICATION SYSTEMS DESIGN AND MANAGEMENT The theory and practice of Telecommunication
TELECOMMUNICATION SYSTEMS DESIGN AND MANAGEMENT The theory and practice of Telecommunication system design. Ongoing systems management. Telecommunication management including selection of vendors/systems, structuring an RFP systems proposal analysis, computer aided telecommunications management. Telecommunication management strategies from a business perspective. PREREQUISITE(S): TDC 463.

TDC 568
NETWORK MANAGEMENT The five major areas of network management--fault management, performance management, security, accounting and configuration management--are discussed. Advanced topics such as fault diagnosis and isolation, event correlation, MIB design, SNMP programming, performance monitoring, service level agreements and network security architectures are also discussed. PREREQUISITE(S): TDC 463.

TDC 569

TDC 573
MULTIMEDIA NETWORKING This course addresses the concepts, architecture and design of Quality of Service (QoS) networks and distributed multimedia systems. Key issues in designing networked multimedia systems are discussed, including reliable multi-point communication/IP multicasting, media coding and compression, audio/video streaming, audio/video transmission, media synchronization, multimedia traffic demands and requirements, congestion control and scheduling. PREREQUISITE(S): TDC 561 or TDC 562.

TDC 577
NETWORK SECURITY II This course is an advanced class in network security. Topics include: Intrusion Detection and Prevention Systems; Security Engineering processes; Advanced firewall considerations; Honeypots; Incident response; Forensics; Enterprise security policy development and complex enterprise security infrastructure design and integration. PREREQUISITE(S) TDC 477 or TDC 572

TDC 588
ADVANCED NETWORK DEFENSE SYSTEMS This course focuses on developing techniques for attack detection and mitigation in enterprise networks. The course includes: traffic/log analysis, anomaly detection, intrusion prevention, adaptive security policy, alarm analysis, and worm contaminating and quarantining, performance evaluation of defense systems. Special emphasis will be given to developing intelligent network defense systems. Thus, students must be prepared to do programming projects using any platform or programming language. PREREQUISITE(S) TDC 477 and (CSC309 or CSC212 or CSC261)

TDC 593
TOPICS IN TELECOMMUNICATIONS This is an independent study course. PREREQUISITE(S): Consent of instructor. Independent study form required.

TDC 597
TOPICS IN DATA COMMUNICATIONS This is an independent study course. PREREQUISITE(S): Consent of instructor. Independent Study form required.

TDC 663
INTRODUCTION TO LOCAL AREA NETWORKS Principles of computer networks using LANs as an example. Issues in communications protocols and compatibility. Client-server versus peer-peer software applications. Network operating system services and management of local networks. PREREQUISITE(S): Enrollment in Curriculum Studies Technology Specialist

TDC 690
RESEARCH SEMINAR Readings and discussion on current research topics. Students may register for this course no more than twice. PREREQUISITE(S): Consent of the instructor.

TDC 696
MASTER'S PROJECT (4 credit hours) Students may register for this course only after their advisor has approved a written proposal for their project. PREREQUISITE(S): Consent of advisor. Independent study form required.

TDC 698
MASTER'S THESIS (2 credit hours) Students may register for this course only after their advisor has approved a written proposal for their thesis. Students must continue to register for this course every quarter after their
first registration in it until they complete their project or thesis to the satisfaction of their advisor. They earn two hours of credit for each such registration but only four hours of credit will apply for degree credit. PREREQUISITE(S): Consent of advisor. Independent study form required.

Theatre Technology

Graduate Course Descriptions □ T, U & V □ Theatre Technology

**Theatre Technology**

TEC 571
TECHNICAL PRODUCTION PRACTICE: GRADUATE I Technical Production Practice: Graduate I

TEC 572
TECHNICAL PRODUCTION PRACTICE: GRADUATE I Technical Production Practice: Graduate I

TEC 573
TECHNICAL PRODUCTION PRACTICE: GRADUATE I Technical Production Practice: Graduate I

TEC 599
INDEPENDENT STUDY Independent Study

TEC 671
TECHNICAL PRODUCTION PRACTICE: GRADUATE II Technical Production Practice: Graduate II

TEC 672
TECHNICAL PRODUCTION PRACTICE: GRADUATE II Technical Production Practice: Graduate II

TEC 673
TECHNICAL PRODUCTION PRACTICE: GRADUATE II Technical Production Practice: Graduate II

TEC 771
TECHNICAL PRODUCTION PRACTICE: GRADUATE III Technical Production Practice: Graduate III

TEC 772
TECHNICAL PRODUCTION PRACTICE: GRADUATE III Technical Production Practice: Graduate III

TEC 773
TECHNICAL PRODUCTION PRACTICE: GRADUATE III Technical Production Practice: Graduate III

Theatre Studies

Graduate Course Descriptions □ T, U & V □ Theatre Studies

**Theatre Studies**

THE 511
GRADUATE MANAGEMENT PRACTICUM Work training course as full-time employment at Chicago Shakespeare Theater. Specialized training in company operations of tickets sales, gift processing, customer service, house management, producing, company management, budget development, special event planning, subscription campaign, marketing and development, facilities operations, and organizational structure. (4-6 credit hours)
THE 512
GRADUATE MANAGEMENT PRACTICUM Work training as full-time employment at Chicago Shakespeare Theater. Specialized training in company operations of ticket sales, gift processing, customer service, house management, producing, company management, budget development, special event planning, subscription campaign, marketing and development, facilities operations, and organizational structure. (4-6 credit hours)

THE 513
GRADUATE MANAGEMENT PRACTICUM Work training as full-time employment at Chicago Shakespeare Theater. Specialized training in company operations of ticket sales, gift processing, customer service, house management, producing, company management, budget development, special event planning, subscription campaign, marketing and development, facilities operations, and organizational structure. (4-6 credit hours)

THE 521
ARTS LEADERSHIP SYNTHESIS SEMINAR All study revolves around this weekly seminar that includes aspects of the Chicago Shakespeare work experience and DePaul course integration in addition to readings, field trips, projects, and time for independent study. The Synthesis Seminar is fluid and reflective, allowing for both examination of coursework and on-the-job experience. Each seminar session synthesizes the students' weekly studies, experiences both at work and in the community, independent research, and natural curiosity in close connection with Theatre School faculty, program director, and the Chicago Shakespeare department heads. (3 credit hours)

THE 522
ARTS LEADERSHIP SYNTHESIS SEMINAR All study revolves around this weekly seminar that includes aspects of the Chicago Shakespeare work experience and DePaul course integration in addition to readings, field trips, projects, and time for independent study. The Synthesis Seminar is fluid and reflective, allowing for both examination of coursework and on-the-job experience. Each seminar session synthesizes the students' weekly studies, experiences both at work and in the community, independent research, and natural curiosity in close connection with Theatre School faculty, program director, and the Chicago Shakespeare department heads. (3 credit hours)

THE 523
ARTS LEADERSHIP SYNTHESIS SEMINAR All study revolves around this weekly seminar that includes aspects of the Chicago Shakespeare work experience and DePaul course integration in addition to readings, field trips, projects, and time for independent study. The Synthesis Seminar is fluid and reflective, allowing for both examination of coursework and on-the-job experience. Each seminar session synthesizes the students' weekly studies, experiences both at work and in the community, independent research, and natural curiosity in close connection with Theatre School faculty, program director, and the Chicago Shakespeare department heads. (3 credit hours)

THE 599
INDEPENDENT STUDY Independent Study

THE 601
GRADUATE SEMINAR Three quarter hours. The course familiarizes the student with the requisites of the thesis project and prepares the student to successfully complete this graduate requirement. Additionally, students review material in preparation for the comprehensive exam in the history of theatre and dramatic literature. (prereq)

THE 602
GRADUATE SEMINAR Three quarter hours. The course familiarizes the student with the requisites of the thesis project and prepares the student to successfully complete this graduate requirement. Additionally, students review material in preparation for the comprehensive exam in the history of theatre and dramatic literature. (prereq)

THE 603
GRADUATE SEMINAR Three quarter hours. The course familiarizes the student with the requisites of the thesis project and prepares the student to successfully complete this graduate requirement. Additionally, students review material in preparation for the comprehensive exam in the history of theatre and dramatic literature. (prereq)

THE 611
GRADUATE MANAGEMENT PRACTICUM Work training as full-time employment at Chicago Shakespeare
GRADUATE MANAGEMENT PRACTICUM Work training as full-time employment at Chicago Shakespeare Theater. Specialized training in company operations of ticket sales, gift processing, customer service, house management, producing, company management, budget development, special event planning, subscription campaign, marketing and development, facilities operations, and organizational structure. (4-6 credit hours)

THE 612
GRADUATE MANAGEMENT PRACTICUM Work training as full-time employment at Chicago Shakespeare Theater. Specialized training in company operations of ticket sales, gift processing, customer service, house management, producing, company management, budget development, special event planning, subscription campaign, marketing and development, facilities operations, and organizational structure. (4-6 credit hours)

THE 613
GRADUATE MANAGEMENT PRACTICUM Work training as full-time employment at Chicago Shakespeare Theatre. Specialized training in company operations of ticket sales, gift processing, customer service, house management, producing, company management, budget development, special event planning, subscription campaign, marketing and development, facilities operations, and organizational structure. (4-6 credit hours).

THE 621
ARTS LEADERSHIP SYNTHESIS SEMINAR All study revolves around this weekly seminar that includes aspects of the Chicago Shakespeare work experience and DePaul course integration in addition to readings, field trips, projects, and time for independent study. The Synthesis Seminar is fluid and reflective, allowing for both examination of coursework and on-the-job experience. Each seminar session synthesizes the students’ weekly studies, experiences both at work and in the community, independent research, and natural curiosity in close connection with Theatre School faculty, program director, and the Chicago Shakespeare department heads. (3 credit hours)

THE 622
ARTS LEADERSHIP SYNTHESIS SEMINAR All study revolves around this weekly seminar that includes aspects of the Chicago Shakespeare work experience and DePaul course integration in addition to readings, field trips, projects, and time for independent study. The Synthesis Seminar is fluid and reflective, allowing for both examination of coursework and on-the-job experience. Each seminar session synthesizes the students’ weekly studies, experiences both at work and in the community, independent research, and natural curiosity in close connection with Theatre School faculty, program director, and the Chicago Shakespeare department heads. (3 credit hours)

THE 681
ARTS LEADERSHIP THESIS PROJECT As the final term of the Synthesis Seminar, this course focuses on the culmination of the program and successful completion of a final capstone project. These projects will be individually selected in conference with the Program Director during the second year of the program. Possible projects include analytical reports, a specific and substantial employment undertaking, and exploration and treatise with an innovative focus in the industry. (5 credit hours)
WMS 400
Feminist Theories [Cross-listed as MLS 440] A discussion and assessment of the various theories concerning the place of women in society, including theories that have advocated a more positive role for and valuation of women than those of the dominant society. The course will take both a historical and a topical approach. Cross-listed as MLS 440.

WMS 405
Women and Knowledge (Cross-listed as WMS 305, MLS 468, PHL 661) This course studies the impact of the current women's movement on our understanding of knowledge, learning and the institutions that define and provide them. (Cross-listed as WMS 305, MLS 468, and PHL 661)

WMS 407
Women in the Middle East: Beyond the Veil This course explores how Middle Eastern Women have been represented in the media outside of the Middle East, by Arab women scholars, and "Third World" feminists and challenges these representations by focusing on issues such as veiling, the everyday lives of Middle Eastern Women, political activism, literary works, economics and social class, and media representations.

WMS 410
Feminist Ethics This course explores theoretical issues regarding women's moral experience and feminist approaches to liberation from various forms of socio-cultural and political oppression. It explores the moral status of women from their own experiences and perspectives, in contrast to traditional Western ethics? characterizations. It examines and evaluates the ethic of care as an alternative moral perspective and investigates a variety of themes and values discerned in women's moral experiences. It explores feminist ethical perspectives on oppressive social practices, such as racism and violence against women, and examines the ethical dimensions of difference among women.

WMS 412
Contemporary Feminist Sex Debates This course examines, analyzes, and engages in contemporary debates over sexual identities, desires, and practices along with their relationship to gender, race, class, and national politics. Some of the issues to be considered include institutionalized heterosexuality; lesbian, gay, and bisexual identities; sexual double standards; sexual "deviance" and transgression; pornography; prostitution; and gendered and transgendered identifications, among others.

WMS 414
Antiracist Feminisms This course introduces students to the wide array of feminist thinking regarding ideologies of race, racism, white privilege, ethnocentrism, racial and ethnic identifications, and their relationship to gender, class, sexual and national identities and locations. The ways that racism has divided women's movements and feminist organizations will be examined along with the work of feminist scholars, writers, activists, and advocates who have articulated explicitly anti-racist theories, analyses, and programs within the U.S. as well as internationally.

WMS 415
Contentions in Feminist and Gender Theorizing: New Directions This course addresses different aspects of feminist and gender theorizing and their interrelationships, focusing on exploration and critical examination of controversies and debates in the field. The course content engages students in examining philosophical, ideological, social, political, and cultural fault lines that offer opportunities to deepen and extend our understandings about discourses on women's and gender studies? constructions and negotiations, in the late 20th century as well as in the early 21st century. The lens through which particular issues and ideas are viewed draws upon multiple perspectives, taking into consideration issues of culture and context, grounded in examining specificities of the local in relationship to global or transnational dynamics.
REPRESENTATIONS OF THE BODY This course reflects the current explosion of intellectual interest in the body as a site of cultural meaning. We will enter this discussion by examining how the body, which seems to be a natural, universal fact, is also a deeply cultural symbolic construction. The readings attempt to capture the complexity of this evolving field using a multidisciplinary approach, including such fields as history, art, medicine, philosophy, religion, sociology, women's studies, and cultural studies. The course addresses the questions of how the body is socially created and sustained. It explores those questions in terms of tensions between nature and culture (to what extent is the body natural? cultural?), body and spirit (what does human "embodiment" mean? are we our physical bodies -and nothing else?), and how discourses of power converge in and on the body (gender/race/class/age/ability). Course topics include: the meaning of physical pain in Western history; the personal experience of and social construction of race in the U.S., with its background assumptions about skin color; the social constructions of gender, sexualities, and sexual desire; personal experience and the cultural "readings" and representations of male and female, old, disabled, and transgressive bodies; socio-cultural "readings" of physical violence pertaining to both victim and perpetrator.

FEMALE IDENTITIES: YOUNG ADULT LITERATURE (CROSS-LISTED AS WMS 322) This course is an introduction to Young Adult Literature as a genre and explores how this literature relates to adolescent girls' experiences in diverse cultural contexts. It addresses themes related to physical and emotional development, the development of personal values and beliefs; the construction of identity; beliefs and attitudes about the body; interpersonal relationships; gender and sexuality; and coping with change, death, belonging, alienation, and escape. Course materials are multicultural with a focus upon the experiences of female adolescents in terms of ethnicity, culture, gender, religion, disability, as well as other dimensions of difference within national and international contexts.

WOMEN IN THEATRE: A GLOBAL PERSPECTIVE This course examines the concepts of gender and theatrical performance with reference to history, culture, critical response, viewer interpretation, and identity in a global context. Students will study character as a dramatic image with respect to gender, race, and class; examine how dramatic images are as diverse as their cultural contexts; explore the concepts of reader and viewer response to theater; and interrogate the relationship between the American theatrical image and the larger global context within which images are created.

CREATING CHANGE: CONTEMPORARY GLBT POLITICS This course explores the historical roots and contemporary realities of gay, lesbian, bisexual and transgendered (GLBT) politics, nationally and internationally. GLBT groups and individuals are gaining political recognition, challenging institutions, and creating change by asserting claims to rights and protections under law. Such issues as hate crimes, marriage, AIDS, and ballot initiatives over non-discrimination law and policy have entered the political mainstream since the 1970's. This course examines the GLBT movement, its political and social strategies, conflicts and issues, and the political roles played by its members as participants in political culture.

SEXUAL JUSTICE: LESBIANS, GAYS AND THE LAW [CROSS-LISTED AS WMS 338] This course examines the historical and contemporary relationships between lesbians, gays, and the law in the U.S., focusing on the intersections of power, sexuality, and identity with issues of sexuality-based discrimination. It focuses on case law, along with social science and legal literature, seeking out a diversity of voices and experiences. Primary emphasis will be on cases that have come before the U.S. Supreme Court since the mid-1950's, with particular attention paid to how groups and individuals have reached out to the court system for redress of injustice and how these groups and individuals have exercised or failed to exercise power within the legal process. The U.S. legal system has reflected a complex set of social and institutional arrangements with regard to sexuality. This course explores the evolution and current construction of these arrangements, how power is allocated and adjudicated, and how law may be used to resist and dismantle pervasive discrimination.

DIVIDED SISTERS This course explores in depth the historical, political, social, and emotional nature of relationships between Black women and White women in America. Societal constructions of race and gender, along with the constant interplay of class, sexual orientation, and other dimensions of difference will be identified, as will key themes and defining tensions and points of connections in women's cross race relations. The course aims to improve understanding of the history between African American and European American women, to gain awareness of the political tensions stemming from with Civil Rights and Women's Liberation movements, to gain understanding of the shared and varying beauty concerns of Black women and
White women in this culture, and to develop strategies for improving communication and cooperation between women of varying racial identities.

WMS 440
GENDERED COMMUNICATION (CROSS-LISTED W/CMN 523) Examines research into the ways the various aspects of communication are affected by and affect the social construction of gender. Topics covered include language and language usage differences, interaction patterns and perceptions of the sexes generated through language and communication. (Cross-listed as CMN 523)

WMS 442
GENDER AND LIFE: NARRATIVE RESEARCH (CROSS-LISTED WITH WMS 342) This course examines the qualitative research methodology of life narratives: conducting and transcribing interviews, developing narratives, and choosing methods of presentation and preservation. Students will collaborate with a specific grassroots community group that seeks to give voice to its members' experience as they struggle with particular issues and perspectives concerning the intersection of gender, race/ethnicity, class, sexuality and religion. As students critically analyze these experiences and examine them through different disciplines and transnational readings, they will participate with members to develop empowerment strategies. By the acquisition of knowledge and skills concerning life narrative research, students in this course will be encouraged to explore ways that they and local groups can create their own community and come to common understanding about critical issues. This course affords students opportunities to experience direct links between academic scholarship, community activism, and social justice.

WMS 450
SELECTED TOPICS ON WOMEN IN LITERATURE Topics vary. See schedule for current offering. (Cross-listed as MLS 477 and SOC 470)

WMS 455
WOMEN AND ART Examines the work of the most significant women artists from the Renaissance to the present. It will also investigate how women have been represented in Western art by both male and female artists. (Cross-listed as MLS 474 and ART 356)

WMS 460
GENDER AND SOCIETY (CROSS-LISTED AS MLS 447 & SOC 470) Attention to the growing literature and empirical research on changing patterns in economic, psychological, and social outcomes for women and men. Consideration of various theories of gender differentiation and equality. (Cross-listed as MLS 447 and SOC 470)

WMS 465
GLOBALIZATION, TRANSNATIONALISM, AND GENDER This course examines how gender-based inequities are linked to global and transnational politics of power, security, political economy, militarism, and ecology. There will be a focus on how gender roles, relationships, and identities are constructed, deployed, challenged, and resisted around the globe, paying particular attention to how systems and structures of gender, race, class, sexuality, age, ability, culture, religion, nation etc. are interconnected. It will explore how resistance to structural inequities is constructed within and across national boundaries, paying particular attention to the role of non-governmental organizations (NGOs) worldwide and how the responses of NGOs to crises (e.g., nuclearism, uneven economic development, environmental degradation) highlight the shortcomings of state-centered decision making.

WMS 470
ADVANCED PSYCHOLOGY OF WOMEN (CROSS-LISTED AS PSY 561/MLS 478) A review of research and theory on women including sexist biases and methodology, feminist therapy, violence against women, and gender differences in the development of power and sexuality. (Cross-listed as MLS 478 and PSY 561)

WMS 475
FEMINISMS OF THE BLACK DIASPORA [CROSS-LISTED AS WMS 375] This course is designed to offer a critical examination of black women's experiences and thought within a global and transnational framework. The course examines works by and about black women in diverse social, political, and geographical contexts: the continent of Africa, Western Europe, Canada, Latin America, the Caribbean, and Australia. Topics to be explored will include issues of politics and ideology; power and inequality based on intersectionality of race and other dimension of identity; agency, activism, and social movements; the mass media, popular culture and social policies.

WMS 478
UTOPIAN & DYSTOPIAN LITERATURE AND FILM: GENDER, RACE AND BEYOND What does the future hold for humankind on this planet and elsewhere? What will life be like in the not too distant as well as far distant futures? How will societies be organized? What kinds of cultural milieus will shape life and living? How will identities be articulated and negotiated? Who will govern? Who will be in resistance? Who will be present and who will be absent? How will things come to be? These questions will form the core of our study of a genre devoted to social commentary, envisioning vastly different ideas about the future, emergent from 20th century works.

WMS 480
SELECTED TOPICS: WOMEN, SELF AND SOCIETY Topics vary. See schedule for current offerings. (Cross-listed as MLS 468 and WMS 394)

WMS 485
WOMEN, GENDER, AGENCY, AND SOCIAL CHANGE This course will examine women’s individual and collective involvement in social, economic, and political resistance and change. The course will focus on women’s participation with attention to the ways that gender shapes the history and development of social movements organized at local, national, regional and global levels, within and across differences of race, class, ethnicity, nationality, religion, geographic location and sexuality. Concrete examples of women’s movements within particular historical and geographical contexts, including within Africa, Latin America, Europe, the Middle East, Asia, the United States, among others, will be highlighted.

WMS 486
BLACK WOMEN’S EXPERIENCES: VARIABLE TOPICS Topics vary. This course is designed to address issues related to the particular experiences of women in the Black Diaspora. Topics will vary in terms of their particular focus in addressing issues that are important to understanding Black women's experiences in a US context and globally?making interconnections to the experiences of women of other ethnic, cultural, and national backgrounds. The course will provide occasions for students to study and examine issues such as Black women's cultural criticism, Black women in the arts, engagement in activism and social and political movements --literature and the media.

WMS 488
QUEER THEORY: AN INTRODUCTION This course examines some of the central texts of queer theory in order to contextualize and historicize the notion of homosexuality as a primary category of identity. The issue of sexual normativity as it relates to gay and lesbian assimilation will also be discussed. Because of the significant relationship of gender and sexuality, we will also examine theories of embodiment and take up the debates around the politics of intersex and transgender identities.

WMS 490
WOMEN ACROSS CULTURES (CROSS-LISTED AS MLS 441, WMS 390) A critical analysis of the roles of women in societies around the world, with special emphasis on economics, politics and culture. Focus is on African, Asian and Latin American cultures and nondominant groups within Western societies. Topics vary each quarter. (Cross-listed as MLS 441 and WMS 390)

WMS 491
METHODS AND SCHOLARSHIP IN WOMEN’S STUDIES (CROSS-LISTED AS WMS 391) An exploration of the transforming effects that feminist methodologies and scholarship have had in the social sciences and humanities. This course emphasizes interdisciplinary research approaches, feminist publishing, and the interplay of research and activism, as it prepares students to write a research proposal. PREREQUISITE(S):WMS 400. (Cross-listed as WMS 391)

WMS 495
SPECIAL TOPICS IN WOMEN'S STUDIES Topics vary. See schedule for current offerings.

WMS 498
FOREIGN STUDY None

WMS 499
INDEPENDENT STUDY (PERMISSION OF PROGRAM DIRECTOR REQUIRED) Permission of Women's Studies Program Director required.