## ITED: INSTRUCTIONAL TECHNOLOGY EDUCATION

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITED 7000</td>
<td>Technologies for Teaching and Learning</td>
<td>3-0-3</td>
</tr>
<tr>
<td></td>
<td>Exploration and application of tools and techniques to support education, academic productivity, and professional development. Includes legal and ethical issues related to technology.</td>
<td></td>
</tr>
<tr>
<td>ITED 7050</td>
<td>Distance Education</td>
<td>3-0-3</td>
</tr>
<tr>
<td></td>
<td>Introduction to distance education technologies and their utilization as instructional delivery systems.</td>
<td></td>
</tr>
<tr>
<td>ITED 7070</td>
<td>Decision-Oriented Research and Evaluation</td>
<td>3-0-3</td>
</tr>
<tr>
<td></td>
<td>Introduction to field-based research and evaluation issues and methodologies. Covers problem identification, sources of data, research and evaluation techniques, cost analysis, communicating with clients, legal/ethical considerations, and using data for decision making.</td>
<td></td>
</tr>
<tr>
<td>ITED 7100</td>
<td>Foundational Theories in Instructional Technology</td>
<td>3-0-3</td>
</tr>
<tr>
<td></td>
<td>Introduction to theories of learning, instruction, communication, information, and systems as applied to research and practice in the field of instructional technology. Includes presentation skills and instructional techniques.</td>
<td></td>
</tr>
<tr>
<td>ITED 7150</td>
<td>Special Topics</td>
<td>1-0-1 to 3-0-3</td>
</tr>
<tr>
<td></td>
<td>Advanced in-depth study of specific contemporary issues. May be repeated under different topics.</td>
<td></td>
</tr>
<tr>
<td>ITED 7200</td>
<td>Information Resources I</td>
<td>3-0-3</td>
</tr>
<tr>
<td></td>
<td>Introduction to information sources including Internet and databases, search strategies, information retrieval, access issues, legal and ethical issues, and evaluation of information.</td>
<td></td>
</tr>
<tr>
<td>ITED 7201</td>
<td>Information Resources II</td>
<td>3-0-3</td>
</tr>
<tr>
<td>Prerequisite: ITED 7200.</td>
<td>Development and application of knowledge and skills in information resources with emphasis on P-12 media center resources and services. Covers strategies for integrating information access skills into the curriculum, selection and evaluation of software and other resources, and building and managing media center collections.</td>
<td></td>
</tr>
<tr>
<td>ITED 7202</td>
<td>Bibliographic Organization</td>
<td>3-0-3</td>
</tr>
<tr>
<td>Prerequisite: ITED 7201.</td>
<td>Development and application of knowledge and skills in information resources with emphasis on P-12 media center resources and services. Includes bibliographic networks (i.e., OCLC, GOLD), resource sharing, database maintenance and evaluation.</td>
<td></td>
</tr>
<tr>
<td>ITED 7280</td>
<td>Internship in Educational Media Center</td>
<td>3-0-3</td>
</tr>
<tr>
<td>Prerequisite: Approval of advisor</td>
<td>Development and application of knowledge and skills in information resources with emphasis on P-12 media center resources and services. Includes bibliographic networks (i.e., OCLC, GOLD), resource sharing, database maintenance and evaluation.</td>
<td></td>
</tr>
<tr>
<td>ITED 7300</td>
<td>Instructional Design &amp; Development I</td>
<td>3-0-3</td>
</tr>
<tr>
<td>Prerequisite: ITED 7100.</td>
<td>Development and application of knowledge and skills in information resources with emphasis on P-12 media center resources and services. Includes bibliographic networks (i.e., OCLC, GOLD), resource sharing, database maintenance and evaluation.</td>
<td></td>
</tr>
<tr>
<td>ITED 7301</td>
<td>Instructional Design and Development II</td>
<td>3-0-3</td>
</tr>
<tr>
<td>Prerequisite: ITED 7300 and ITED 7070.</td>
<td>Development and application of knowledge and skills in information resources with emphasis on P-12 media center resources and services. Includes bibliographic networks (i.e., OCLC, GOLD), resource sharing, database maintenance and evaluation.</td>
<td></td>
</tr>
</tbody>
</table>
ITED 7302 Needs Assessment 3-0-3
Prerequisite: ITED 7300 and ITED 7070. Application of research and evaluation skills to a field-based needs assessment; investigation of non-instructional solutions with attention to performance improvement. Includes the use of job task analysis, consideration of organizational cultures, and application of team building skills.

ITED 7303 Instructional Design and Development III 3-0-3
Prerequisite: ITED 7301 and ITED 7302. Development of a professional project in which students design, implement, and evaluate an instructional product or learning environment.

ITED 7380 Internship in Technology Applications 3-0-3
Prerequisite: Approval of advisor

ITED 7400 Automation and Networking 3-0-3
Prerequisite: ITED 7200. Hands-on introduction to the process of automation and networking. Includes standards, software and hardware selection, maintenance, repair, implementation, and evaluation.

ITED 7401 Using Networked Systems for Teaching and Learning 3-0-3
Prerequisite: ITED 7200 and ITED 7400. Practical experiences in setting up, managing, and using network applications to support instruction, research, team building, and computer-mediated communication.

ITED 7402 Thinking and Learning with Computers 3-0-3
Exploration of computer applications as cognitive tools for engaging and enhancing thinking in learners. Examines the theoretical, pedagogical and practical reasons for using computers as thinking tools.

ITED 7403 ITED Leadership Seminar (CMC) 3-0-3
Prerequisites: ITED 7400 and ITED 7500. In-depth investigations of specific contemporary topics and technologies using computer-mediated communications (CMC). Electronic media are the primary vehicles for course content and contact.

ITED 7480 Internship in Technology Leadership 3-0-3
Prerequisite: Approval of advisor

ITED 7500 ITED Management 3-0-3
Prerequisite: ITED 7200; ITED 7300; and ITED 7400. Introduction to management principles in an ITED context. Covers theory and practice in strategic planning, the change process, program administration, use of human and physical resources, and budgeting for service-oriented functioning.

ITED 7900 Special Topics in Secondary Education 1-0-1 to 3-0-3
In depth study of specific issues in instructional technology. Course may be repeated under different topics.

ITED 8200 Database/Internet Applications 3-0-3
Prerequisite: ITED 7200 or equivalent. Advanced principles and techniques of searching the Internet and a variety of databases. Covers file and thesauri structures, principles of indexing and abstracting, information management, Internet applications, and curriculum integration.

ITED 8500 Leadership in Instructional Technology 3-0-3
A study of theories and techniques for working with individuals and groups to implement change and to accomplish education goals. Emphasis is on reflective practice and application in a field-based setting.
ITED 8900 Special Topics in Instructional Technology 1-0-1 to 3-0-3
Advanced study of specific contemporary issues in instructional technology. Course may be repeated under different topics.

ITED 8970 Research Seminar 1-0-1
An introduction to the research component of the Ed.S. program for the purpose of identifying research topic(s) leading to a thesis. Includes a review of studies applying a variety of methodologies to problems in instructional technology.

ITED 8980 Review of Literature 2-0-2
Prerequisites: ITED 8970 and RSCH 8000. The writing of a critical review of current research on a specific topic related to instructional technology. Includes the refinement of a research proposal. May be repeated.

ITED 8999 Thesis 3-0-3
Prerequisites: ITED 8970, RSCH 8000, and ITED 8980. The data collection, analysis, and reporting phase of the Education Specialist research project. May be repeated.

LEAD: EDUCATIONAL LEADERSHIP

LEAD 7000 Interpersonal Relationships for Educational Leaders 2-0-2
Human aspects involved in the process of educational leadership with an emphasis upon relationships that can significantly alter student achievement are examined. Developing a professional appearance and presentation as an educational leader will be emphasized. Making quality presentations to professional audiences, written and oral, will be examined. Focus is on skill acquisition.

LEAD 7010 Issues and Trends in Education 2-0-2
A study of the current issues and trends in the field of educational leadership. Students will investigate an area of interest in educational leadership based on empirical literature.

LEAD 7100 Leadership in Educational Organizations 2-0-2
Prerequisite: RSCH 7100, LEAD 7210. An examination of the processes of effective leadership and their relationship to the success of school programs.

LEAD 7200 Principles of Curriculum and Instruction for Educational Leaders 3-0-3
Prerequisite: RSCH 7100, LEAD 7210. An examination of curriculum development and contemporary changes as they relate to social aims, learner characteristics, and social problems. Existing research in the area of curriculum and instruction pertinent to educational leaders is critiqued. Emphasis is on curriculum and instruction foundations, design, basic concepts, theory, and trends of curriculum from early childhood through secondary levels.

LEAD 7210 Ethics and Laws 1-0-1
Review of the major statutes and litigation affecting educational and educationally-related areas as well as ethical decision-making practices. Emphasis is on information about professional ethics and behavior appropriate to educational and educationally-related settings.

LEAD 7300 Fiscal and Facilities Management for Educational Leaders 3-0-3
Prerequisite: RSCH 7100, LEAD 7210. Content covers the area of financing of school corporations in the current economic and political setting, with emphasis
on interrelationships of educational, economic, and political decisions. Applications of school business management practices to support such services as transportation, food service, plant services are analyzed.

**LEAD 7400  Legal Issues for Educational Leaders** 3-0-3  
**Prerequisite:** RSCH 7100, LEAD 7210, LEAD 7100. An overview of the legal structure of education, liability, constitutional rights, contractual relationships, federal and state regulations, collective action, and special education rules and regulations is provided. Historical perspective in law and education with in depth reviews of case law showing the evolution of courts as educational policy makers.

**LEAD 7500  Human Resource Management and Development** 2-0-2  
**Prerequisite:** RSCH 7100, LEAD 7210. Examined will be the recruitment, selection, and orientation of new educational leaders; faculty development and evaluation; codes of ethics; and other practices involved in staff and faculty relationships.

**LEAD 7610  Elementary School Leadership** 3-0-3  
**Prerequisite:** Core requirements or permission of advisor and course instructor. The processes of effective leadership and their relationship to the success of school programs at the elementary level will be analyzed. Organization and administration of relevant settings with a focus on the competencies necessary for leadership and management at the elementary level.

**LEAD 7620  Middle School Leadership** 3-0-3  
**Prerequisite:** Core requirements or permission of advisor and course instructor. The processes of effective leadership and their relationship to the success of school programs at the middle level will be analyzed. Organization and administration of relevant settings with a focus on the competencies necessary for leadership and management at the middle level.

**LEAD 7630  High School Leadership** 3-0-3  
**Prerequisite:** Core requirements or permission of advisor and course instructor. The processes of effective leadership and their relationship to the success of school programs at the secondary school level will be analyzed. Organization and administration of relevant settings with a focus on the competencies necessary for leadership and management at the secondary level.

**LEAD 7640  System Level Leadership** 3-0-3  
**Prerequisite:** Core requirements or permission of advisor and course instructor. The processes of effective leadership and their relationship to the success of school programs at the system level will be analyzed. Organization and administration of relevant settings with a focus on the competencies necessary for leadership and management at the system level.

**LEAD 7650  Leadership Issues in Higher Education** 3-0-3  
**Prerequisite:** LEAD 7010, LEAD 7210, LEAD 7100, RSCH 7100. The processes of effective leadership and their relationship to the success of educational and educationally-related programs at the community level will be analyzed. Organization and administration of relevant settings with a focus on the competencies necessary for leadership and management at the community level.

**LEAD 7700  Supervision of Instructional Programs** 2-0-2  
Supervising the planning of instruction and observing the delivery of instruction will occur. Formative and summative evaluations of instructional program effec-
tiveness will be conducted.

**LEAD 7795  Professional Seminar in Pupil Personnel Services** 1-0-1
Corequisite Courses: **PSYC 7795 and SOWK 7850.** Designed for professionals holding a certificate, or are certificate eligible, in school counseling, school psychology, or school social work. The role and function of each service area are explicated, developed, and validated within a collaboratively instructed forum.

**LEAD 7800  Organization and Governance of Higher Education** 3-0-3
An introduction to the organization of post-secondary institutions, the governance of these institutions, and the day-to-day as well as the long term administration of such institutions. This course is appropriate for those who are now or will be working in post secondary education at any level as it offers explanation and increased understanding of the organizational dynamics of institutions of higher education.

**LEAD 7810  Finance and Budgeting in Higher Education** 3-0-3
This course considers all sources of financing in higher education, the types and sources of student financial aid, budgeting, and cost effectiveness analysis. In addition, the articulation of each of these issues with the institution’s mission and goals is a major thrust of the course.

**LEAD 7820  Assessment and Budgeting in Higher Education** 3-0-3
An introduction to the concept of institutional effectiveness which focuses on an institution’s ability to use planning strategies and evaluation information to assess current performance and plan for improvements. The design and appropriate implementation of assessment and evaluation methods as they relate to addressing various accreditation standards will be examined. Examples of how to develop a comprehensive system of evaluation related to missions and goals will be described for academic and non-academic support units.

**LEAD 7830 Law and Policy in Higher Education** 3-0-3
This course is intended to familiarize students with statutory and case law that has implications for higher education administrators and policy makers with particular emphasis on such areas as employment, including affirmative action, dismissal, contracts, civil rights, due process, and student rights.

**LEAD 7901  Internship Preparation in Building Level Leadership** 2-0-2
**Prerequisite: Core requirements and permission of advisor.** A supervised internship relevant to the student’s program in elementary, middle, or at the secondary level is provided. This field experience is focused on acquiring first-hand knowledge of appropriate leadership, administrative, and management competencies at the building level.

**LEAD 7902  Internship in Building Level Leadership** 2-0-2
**Prerequisite: LEAD 7901 and permission of advisor.** A supervised internship relevant to the student’s program in elementary, middle or at the secondary level is provided. This field experience is focused on developing appropriate leadership, administrative, and management competencies at the building level.

**LEAD 7903  Advanced Internship in Building Level Leadership** 2-0-2
**Prerequisite: LEAD 7902 and permission of advisor.** A supervised internship relevant to the student’s program in elementary, middle or at the secondary level is provided. This field experience is focused on the demonstration of appropriate leadership, administrative, and management competencies.
LEAD 7911 Internship Preparation in System Level Leadership  2-0-2
Prerequisite: Completion of Core Requirements and permission of advisor.
A supervised internship relevant to the student’s program in system level leadership is provided. This field experience is focused on acquiring first-hand knowledge of appropriate leadership, administrative, and management competencies at the system level.

LEAD 7912 Internship in System Level Leadership  2-0-2
Prerequisite: LEAD 7911 and permission of advisor. A supervised internship relevant to the student’s program in system level leadership is provided. This field experience is focused on developing appropriate leadership, administrative, and management competencies at the system level.

LEAD 7913 Advanced Internship in System Level Leadership  2-0-2
Prerequisite: LEAD 7912 and permission of advisor. A supervised internship relevant to the student’s program in system level leadership is provided. This field experience is focused on the demonstration of appropriate leadership, administrative, and management competencies.

LEAD 7921 Internship Preparation in Higher Education Leadership  3-0-3
Prerequisite: Core courses and permission of advisor. A supervised internship relevant to the student’s program in post-secondary leadership is provided. This field experience is focused on acquiring first-hand knowledge of appropriate leadership, administrative, and management competencies at the post-secondary level.

LEAD 7922 Internship in Higher Education Leadership  3-0-3
Prerequisite: LEAD 7921 and permission of advisor. A supervised internship relevant to the student’s program in post-secondary leadership is provided. This field experience is focused on developing appropriate leadership, administrative, and management competencies at the post-secondary level.

LEAD 7923 Advanced Internship in Higher Education Leadership  2-0-2
Prerequisite: LEAD 7922 and permission of advisor. A supervised internship relevant to the student’s program in post-secondary leadership is provided. This field experience is focused on the demonstration of appropriate leadership, administrative, and management competencies.

LEAD 8200 School Reform and Change  3-0-3
Effective strategies and tactics for changing schools, varieties of school restructuring, and the individual and organization dynamics involved in change will be presented. Change and change strategies in formal and informal organizations are foci. Students will develop change strategies and apply them to selected situations.

LEAD 8300 Social Context of Educational Leadership  3-0-3
A retrospective contemporary and prospective examination of the social, cultural, political, and philosophical contexts from which the current issues that affect schools and schooling have evolved.

LEAD 8400 Organizational Theory for Educational Leaders  3-0-3
Prerequisite: RSCH 8000, LEAD 8200, LEAD 8300. A critical analysis of the theoretical assertions and empirical knowledge claims that have led to the dominant structures, power relationships, and performance expectations of American schools.
LEAD 8610 School, Community, and Media Relations
for Educational Leaders 3-0-3
Prerequisite: RSCH 8000. This course examines school-community-media relationships and techniques of communication employed between the school and a variety of public groups. Typical situations in which conflict is present in educational and educationally-related settings are analyzed, with a focus on conflict management skill acquisition.

LEAD 8650 Personnel Issues and Consideration 3-0-3
Prerequisite: RSCH 8000, LEAD 8200, LEAD 8300, LEAD 8400, LEAD 8600. Role definitions of personnel supervision, analysis of role conflict, needs assessments, observation and diagnosis of teacher classroom performance, writing remedial plans, conducting post observation conferences, and evaluating performance will be discussed. Administration of school personnel policies and practices relating to professional staff, supporting staff, and students will be analyzed.

LEAD 8660 Business and Finance 3-0-3
Prerequisite: RSCH 8000, LEAD 7300. This course conveys the business and financial functions involved in managing schools, such as staffing, salary, scheduling, inventories, and accounting procedures. Development, implementation, and evaluation of financial resource and allocation systems will be examined.

LEAD 8670 Educational Facilities 3-0-3
Prerequisite: RSCH 8000, LEAD 7300 or appropriate ITED course. The design and administration of effective and economical educational facilities in relation to contemporary trends and conditions will be examined. Issues to be considered in the planning, construction, and use of educational facilities will be evaluated.

LEAD 8680 Site-Based Management 3-0-3
Prerequisite: RSCH 8000. Knowledge and skills for implementing shared decision-making, group goal-setting, team-building, and site-based management will be addressed. Skills and procedures for implementing site-based management will be developed.

LEAD 8850 Directed Study in Educational Leadership 1-0-1 to 3-0-3
Prerequisite: RSCH 8000. This course allows intensive study in the student’s field of specialization to meet individual needs and interests.

LEAD 8901 Practicum 3-0-3
Prerequisite: RSCH 8000, LEAD 8200, LEAD 8300, LEAD 8400, LEAD 8600. This course provides supervised application of leadership competencies to the resolution of problems in an educational setting.

LEAD 8999 Thesis 3-0-3
Prerequisite: LEAD 8901. This course provides a supervised capstone field-based project involving school improvement.

LEAD 9010 Leadership Skill Development 2-0-2
Prerequisite: RSCH 9820, RSCH 9840, RSCH 9860. The focus of this course is on the application of the theoretical and empirical knowledge base in educational leadership to personal skill assessment and development.
LEAD 9020  Leadership Skill Application  2-0-2
Prerequisite: LEAD 9010. The focus of this course is on the application of the theoretical and empirical knowledge base in educational leadership to skills and processes needed for school improvement in a multicultural society.

LEAD 9030  Leadership Problems: Interdisciplinary Analysis  2-0-2
Prerequisite: LEAD 9010, LEAD 9020. The focus of this course is on the application of interdisciplinary analysis and leadership skills to the resolution of educational problems and issues.

LEAD 9870  School Organizational and Cultural Studies  3-0-3
Prerequisite: LEAD 9800, RSCH 9820, RSCH 9840, RSCH 9860. Simulation and field practice in developing and implementing educational research on the effects of school organization and culture.

MATH: MATHEMATICS

MATH 5010  History of Mathematics  3-0-3
Prerequisite MATH 2261. A study of the development of mathematics from primitive times to the twentieth century; including numeral systems, arithmetical methods, origins of algebra, geometry, trigonometry, analytic geometry, calculus; and selected topics from modern mathematics.

MATH 5040  Set Theory  3-0-3
Prerequisite MATH 2262. Propositional and predicate logic; mathematical induction. Logic and structure of sets as related to mathematical proof. Relations, and cardinality.

MATH 5080  Algebraic Structures  3-0-3
Prerequisite MATH 3040/5040. An examination of the structural foundations of the secondary school algebra curriculum. Topics include rings, integral domains, groups (including groups of transformations) and polynomials. Emphasis on development of students’ deductive reasoning and proof techniques.

MATH 5140  Mathematics for Special Education Teachers  3-0-3
Prerequisite MATH 1111. Fundamental mathematical concepts beginning with prenumber notions and then extending to number concepts, numeration systems, and computational algorithms for whole and rational numbers: geometry and measurement, and the role of technology in mathematics instruction.

MATH 5160  Mathematics for Early Childhood Teachers  3-0-3
Prerequisite MATH 1111. A study of concepts and processes underlying the elementary school mathematics curriculum (K-4). Topics include numeration, number systems, estimation, computational algorithms, informal geometry, and measurement.

MATH 5180  Mathematics for Middle School Teachers  3-0-3
Prerequisite MATH 1111. Concepts and processes that provide the foundation for the middle-grades mathematics curriculum (5-8). Includes an in-depth study of the real number system with emphasis on the rational number system and axiomatic differences among number systems. Other topics include relations and functions, geometry (including coordinate geometry and graphing), measurement, and elementary probability and statistics.
MATH 5340 Ordinary Differential Equations 3-0-3
Prerequisite MATH 2402 or consent of instructor. Differential equations of first and second order, linear equations of higher order, applications.

MATH 5510 Foundations of Geometry 3-0-3
Prerequisite MATH 3040/5040. A study of Euclidean and non-Euclidean plane geometry from both synthetic and metric approaches. Topics include concepts related to incidence, betweenness, plane separation and convexity, congruence, and parallelism, with some attention given to geometric transformations.

MATH 5600 Probability and Statistics 3-0-3
Prerequisite MATH 2261. Descriptive statistics, probability distributions for discrete and continuous random variables, statistical inference, one way analysis of variance, and regression analysis.

MATH 6081 Modern Algebra I 3-0-3
Prerequisite MATH 4150/6150 or MATH 3040/5040 or consent of instructor. Topics from groups, rings, and fields. Subgroups, cyclic groups, permutation groups, normal subgroups, homomorphisms, Cayley’s and Lagrange’s Theorems, factor groups, abelian groups, direct products. Introduction to rings and fields.

MATH 6082 Modern Algebra II 3-0-3
Prerequisite: MATH 4081/6081. Continuation of MATH 6081 with emphasis on rings and fields. Rings, integral domains, and fields. Vector spaces, extension fields, finite fields.

MATH 6085 Applied Modern Algebra 3-0-3
Prerequisite MATH 4081/6081. Lattices, Boolean algebras, semigroups, binary group codes, binary relations, and graphs. Special emphasis is placed on applications.

MATH 6110 Number Theory 3-0-3
Prerequisite MATH 2262. Elementary properties of integers including divisibility, unique factorization, progressions and prime numbers. Linear congruencies and residue classes, complete and reduced residue systems, Chinese Remainder Theorem, quadratic residues, law of quadratic reciprocity, Theorems of Fermat and Wilson, Fibonacci and perfect numbers, sums of squares, elementary theory of continued fractions.

MATH 6150 Linear Algebra 3-0-3
Prerequisites Either MATH 2150 and MATH 3040/5040 or consent of instructor. Introduction to the theory of vector spaces, with emphasis on finite-dimensional vector spaces, linear systems, matrices, linear transformations, eigenvalues, and related subjects.

MATH 6260 Mathematical Analysis 3-0-3
Prerequisites MATH 3040/5040 or consent of instructor or MATH 2263 with a grade of “A” or “B”. A study of the principles of mathematical analysis; point set topology in Euclidean and metric spaces, numerical sequences and series, continuity, differentiation, integration, sequences and series of functions.

MATH 6300 Functions of a Complex Variable 3-0-3
Prerequisite MATH 2263. Introductory study of the algebraic and geometric properties of the complex number system and functions of a complex variable. Limits, continuity, and differentiation of complex functions. Analytic functions and the Cauchy-Riemann conditions. Integration of complex functions; Cauchy-
Goursat theorem; Cauchy integral formula; the theorems of Morera and Liouville. Taylor and Laurent series expansions. Residues and poles with applications to integration. Conformal mappings.

MATH 6540  Introduction to Topology 3-0-3
Prerequisite MATH 3040/5040. The study of point set topology in metric and topological spaces. Open and closed sets, compactness, connectedness, topological mappings, separation, product and functions spaces.

MATH 6621  Mathematical Statistics I 3-0-3
Prerequisites MATH 2263 and either MATH 2620 or MATH 3600/5600. Distributions of random variables, conditional probability and stochastic independence, multivariate and some special distributions, and distributions of functions of random variables.

MATH 6622  Mathematical Statistics II 3-0-3
Prerequisite MATH 4621/6621. Introduction to statistical inference, sufficient statistic, estimation theory, theory of statistical tests, and inferences about normal models.

MATH 6625  Topics in Applied Statistics 3-0-3
Prerequisite MATH 3600/5600 or consent of instructor. Topics in applied statistics will be selected from quality control, sampling theory, nonparametric statistics, experimental design, or regression analysis.

MATH 6651  Numerical Analysis I 3-0-3
Prerequisites MATH 2262 and either CS 1301 or CS 1338. Development and implementation of efficient numerical methods; locating roots of nonlinear equations; solving systems of linear equations; numerical differentiation and integration; interpolation; approximation of functions.

MATH 6652  Numerical Analysis II 3-0-3
Prerequisites MATH 4651/6651 and MATH 3340/5340. Continuation of MATH 6651. Determination of eigenvalues and eigenvectors of matrices; method of least squares, and curve fitting; numerical solutions of ordinary and partial differential equations.

MATH 6901  Operations Research I 3-0-3
Prerequisite MATH 2150 or MATH 4150/6150. Mathematical aspects and applications of operations research. Topics are selected from linear programming (mainly), integer programming, and dynamic programming.

MATH 6902  Operations Research II 3-0-3
Prerequisite MATH 3600/5600 or MATH 4621/6621 (Note that MATH 4901/6901 is not a prerequisite). An introduction to stochastic operations research. Topics are selected from stochastic modeling and optimization, probability models, queueing theory, and Monte Carlo simulation.

MATH 6910  Mathematical Models 3-0-3
Prerequisite MATH 2263 or consent of instructor. An introduction to basic principles and applications of classical mathematical models, optimization models and probabilistic models.
MBA: MASTER OF BUSINESS ADMINISTRATION

MBA 7030  Managerial Accounting 3-0-3
Prerequisites: ACCT 2101 and ACCT 2102 or their equivalents. An overview of the role of the accounting function in organizations. Emphasis is placed on analyzing financial information to enhance managerial decision making. The course is designed to assist managers in developing processes for evaluating the merits of historical and forecast data and using such information to add value to organizations.

MBA 7050  Strategic Marketing 3-0-3
Prerequisites: BUSA 2106 and MKTG 3050 or their equivalents. A study of the strategic managerial aspects of marketing. Topics focus on product, price, promotion, and place in the ethical planning, implementing, and controlling of marketing operations.

MBA 7110  Advanced Business Law 3-0-3
Prerequisite: Undergraduate foundations in accounting. A study of a variety of legal topics that provide both an overview and a sensitivity to the multiple legal implications faced by modern businesses. This course is designed to satisfy the needs of students interested in general management and students preparing for professional accounting certification exams.

MBA 7300  Advanced Production Techniques 3-0-3
A survey of current production management systems and philosophies. Topics include current production systems, quality management concepts, and implementation of manufacturing planning and control systems.

MBA 7350  Managerial Finance 3-0-3
Prerequisite: FIN 3350 or equivalent. An advanced study of the theory, principles, and practices that define the finance function in the firm as viewed from the perspective of the financial manager. The topics covered include financial planning, capital budgeting, financing the firm, capital structure management, and dividend policy. Computerized financial models are used to apply financial principles to financial problems and decision making.

MBA 7450  Management Information Systems 3-0-3
Prerequisite: CS 1000 or equivalent. Methodologies and infrastructures used at the project level to select, acquire, install, operate, and upgrade software, hardware, and networking technology, with an emphasis on analysis, design, and implementation. Topics will also include LANs, MANs, WANs, and World Wide Web.

MBA 7500  Managerial Economics 3-0-3
Prerequisites: ECON 2106 and ECON 2105 or their equivalents. The application of economic principles and methodologies to the decision-making process of a business firm. Key topics include optimization and statistical techniques, consumer behavior, market demand analysis for decision making, demand forecasting, production and cost relationships, cost estimation and forecasting, and business pricing decisions.

MBA 7630  Organizational Theory and Behavior 3-0-3
Prerequisite: MGNT 3250 or equivalent. Study of both micro- and macro-
organizational behavior. Topics include motivation, leadership, job satisfaction, individual differences, group dynamics, design, organizational structure and processes, organizational politics and organizational conflict.

**MBA 7650 Multinational Corporate Finance**  
Theory and practice of multinational corporate operations. Includes the study of foreign exchange markets, risks associated with foreign exchange transactions, accounting consolidations and foreign operations, and appropriate exchange-risk hedging techniques.

**MBA 7660 Advanced Quantitative Methods**  
Prerequisite: BUSA 2100 or equivalent. A seminar in the procedures, techniques and applications of quantitative methods in business. Topics include classical inference procedures, nonparametric methods, regression analysis, analysis of variance, contingency table analysis, decision theory and an introduction to methods for quality improvement. Computer software will be used in the analysis of data.

**MBA 7760 Advanced Retailing**  
An advanced study of the managerial processes and opportunities in both large and small scale retailing. Topics include location, store design, merchandising and buying. MBA program elective course.

**MBA 7770 Distribution Management**  
A study of the aspects of physical distribution and warehousing of products. Topics include principles of inventory and materials management with emphasis on the role of distribution in the economic development of south Georgia. MBA program elective course.

**MBA 7780 Human Resource Management**  

**MBA 7800 International Management**  
A survey of international management and global business practices from a cross-cultural perspective. Topics include cross-cultural values, perception, job satisfaction, communication, negotiation, leadership, motivation, ethics, group dynamics, and international social and political constraints on domestic management methods.

**MBA 7860 New Venture Management**  
A study of the creation and management of new ventures. Topics include generating and evaluating new business ideas, developing a business plan, starting a new venture in a corporate or independent setting, and managing the start-up and growth phase of operations. MBA program elective course.

**MBA 7870 Total Quality Management**  
A survey of theories and practices associated with quality management. Topics include current quality management practices, tools and procedures for continuing improvement processes, the team approach to quality management, introduction of quality management practices in an organization, and transfer of
quality management skills and procedures to customers and suppliers. MBA program elective course.

**MBA 7900 Strategic Management** 3-0-3
Prerequisite: MBA 7660, MBA 7050, MBA 7030, MBA 7500, MBA 7630, MBA 7300, MBA 7350, and MBA 7450 or their equivalents or permission from the instructor. An advanced course using concepts of strategic management. Integrates the functional areas of an organization, develops analytical skills, and enhances communication skills. Emphasis is given to the formulation and implementation of strategy in world markets.

**MBA 7990 MBA Directed Study** 3-0-3
Directed graduate research or reading in Business. Proper form must be submitted to the Director of the MBA Program at least two weeks before the beginning of the semester.

**MFTH: MARRIAGE AND FAMILY THERAPY**

**MFTH 6700 Family Sociology** 3-0-3
Also offered as SOCI 6700. The social context of contemporary issues facing families. Includes family history, cross-cultural issues, and research and theory regarding changing gender roles, family violence and abuse, divorce, single-parenting, work families, sexual orientation, non-traditional families and other relevant issues.

**MFTH 6800 Orientation to MFT Practice and Ethics** 3-0-3
Introduces students to the basic epistemological issues in marriage and family therapy, history of the field and current developments, professional socialization and organizations, ethics and values associated with the practice of MFT. Self awareness critical to practice is also addressed.

**MFTH 6970 Internship in Family Therapy** 3-0-3
Graded satisfactory/unsatisfactory. Field experience appropriate to marriage and family therapy. Applications must be made prior to the semester in which internship experience is anticipated. Application must be approved by the graduate advisor and the coordinator of the area of specialization. May be repeated up to a maximum of 6 credit hours.

**MFTH 6980 Marriage and Family Therapy Supervision** 2-10-2
Limited to graduate students who already hold a master’s degree and are pursuing licensing as a Family Therapist. (Graded on a S/U basis. Requires 10 client contact hours each week, one hour of group supervision at Valdosta State University). May be repeated for credit. Closely supervised experience consistent with family therapy emphasis and student’s licensing needs. Emphasis on systemic diagnosis, assessment, and therapeutic techniques dealing with premarital, marital, pre-divorce and post-divorce therapies.

**MFTH 6990 Supervisor’s Training in Marriage and Family Therapy** 3-0-3
Limited to graduate students who already hold the master’s degree and are pursuing the status of “Supervisor in Training” through the American Association for Marriage and Family Therapy. (Graded on S/U basis). Offered on an individual basis, readings of supervision, styles, systemic family therapy, and ethics for supervision will be explored.
MFTH 7050  Class, Gender, and Ethnic Issues in Applied Settings  
Also listed as SOCI 7050. Prerequisite: MFTH 6800 or SOCI 7011. An in-depth study of the sensitivities needed by family therapists and other social science practitioners to the issues of social class, gender, and ethnicity. Addresses the interface between professional responsibilities and ethics and the social and political context of treatment. A multicultural perspective is to be developed by each student.

MFTH 7101  Family Systems Theories  
Prerequisite: MFTH 6800. An in-depth study of family systems theory. Emphasis on the major schools of thought included in a systems analysis of the family and current issues and ideas within family systems discourse.

MFTH 7102  Interventions in MFT  
Prerequisite: MFTH 7602. A review of the various intervention techniques employed by the major theoretical approaches to MFT. Emphasis on skill development, video and role-playing demonstrations, and linking practice to theory and appropriate treatment goals.

MFTH 7103  Advanced Theories Seminar  
Prerequisite: MFTH 77102. A series of seminars that allow students to develop in depth understanding of at least two theoretical approaches to MFT. Examples of offerings include structural/strategic, experiential, family origin, narrative/constructivism, feminist, solution-oriented. May be repeated.

MFTH 7200  Research in Marriage and Family Therapy  
Prerequisite: a statistics course. Quantitative and qualitative methods for research design and data analysis in marriage and family therapy. Emphasis on current outcome and process studies and on critical evaluation and application of research data.

MFTH 7350  Legal Issues in MFT  
Prerequisite: MFTH 6800. Legal responsibilities and liabilities in the practice of family therapy. Addresses issues such as limits to confidentiality, therapist liability, and client privilege. Includes working with the legal system and relevant aspects of family law.

MFTH 7400  Psychopathology & Pharmacology in MFT  
Prerequisite: MFTH 6800. Psychological, biological, and medical issues in the practice of MFT and an introduction to pharmacology. Emphasis on DSM IV diagnosis within a systemic context and collaboration with other mental health professionals.

MFTH 7500  Development in the Family System  
Also offered as SOCI 7500. Human growth and development within the family system. Includes theories of individual development, developmental tasks over the family life cycle, normative and non-normative change, processes of divorce and remarriage, and social, economic, and ethnic influences on the family life cycle. Implications for practice emphasized.

MFTH 7510  Human Sexuality and Gender  
The cultural, social, physical, psychological, and interpersonal aspects of human sexuality and gender. Includes gender role socialization and the development of gendered identities, sexual functioning and attraction, sexual orientation, and problems related to sex and gender.
MFTH 7550  Family Stress and Crisis  3-0-3
Understanding normative and catastrophic stress, trauma, and crisis across the lifespan from a family systems perspective. Focus on approaches to prevention and intervention with families, agencies, and communities.

MFTH 7600  Practicum in Marriage and Family Therapy  0-12-6
Prerequisite: MFTH 7102 and approval of the MFT Faculty. Supervised experience in the practice of marriage and family therapy. Includes practice and live supervision at the MFT Training Clinic as well as experience in community placements. Requires a minimum of 20 hours per week. Must be taken three successive semesters for a total of 500 hours direct client contact.

MFTH 7601  Treatment Issues in Family Therapy  3-0-3
Prerequisite: MFTH 7102. Applications of family systems approaches to the treatment of issues facing families in crisis and transition. Addresses grief and loss, substance abuse, family violence and abuse, child and adolescent behavioral problems, and chronic physical and mental illness. Emphasis on conceptualizing and treatment planning.

MFTH 7602  Couples and Sex Therapy  3-0-3
Prerequisite: MFTH 7102. Treatment techniques for intimate relationships. Emphasis on premarital and commitment issues, anger and conflict, gender and intimacy, and techniques for treating sexual dysfunctions.

MFTH 7650  Special Topics in MFT  1-0-1
A rotating series of seminars addressing important contemporary issues in the field of marriage and family therapy. Examples of topics include working with children, working with adolescents, spirituality, family violence, and substance abuse. May be repeated for credit.

MFTH 7700  Assessment in Marriage and Family Therapy  3-0-3
Prerequisites: MFTH 7101 and MFTH 7500. How to assess family processes within a developmental context. Models for assessing family functioning and use of individual and family assessment instruments will be included.

MFTH 7880  Professional Ethics Seminar  1-0-1
Addresses professional issues in the workplace. Includes marketing oneself, politics of the workplace, professional licensure and clinical membership, working in interdisciplinary teams, professional wellness, and the ethics, values, and decision-making associated with current practice issues.

MFTH 7900  A Survey of Family Systems Theories  3-0-3
An in-depth study of family systems theory. Emphasis on the major schools of thought included in a systems analysis of the family.

MFTH 7980  Internship in Marriage and Family Therapy  0-2 to 10-1 to 5
Prerequisite: MFTH 7600. Supervised experience in the practice of marriage and family therapy in a community placement. Requires enough direct contact hours additional to practicum to total 500 before graduating.

MFTH 7990  Directed Study in Family Therapy  1-0-1 to 3-0-3
Prerequisite: permission of instructor. Specialized study in an area of Marriage and Family Therapy under the direction of a faculty member.

MFTH 7999  Thesis  1 to 6-1 to 6-1 to 6
Prerequisite: Approval of student’s graduate committee. Independent research in an area related to the practice of marriage and family therapy.