

GRADUATE COURSES

INTERDISCIPLINARY STUDIES

■ Master of Arts in Executive Leadership Courses

MAEL 600. EXECUTIVE LEADERSHIP

This course is designed to look at leadership from the inside of an individual out toward the group and eventually the organization. It is a fundamentals course covering a broad range of leadership topics from self-development and understanding self, to group behavior, organizational design, ethics and teamwork. Prerequisite: admission to the MAEL program. *Three credits*

MAEL 610. ETHICS AND MORAL PHILOSOPHY.

A study of how decisions and actions are related to moral philosophy and world views. The course examines the ethical foundations of, responsibilities for, and consequences of decisions and practices in our personal lives, business lives, and societal lives. Prerequisite: MAEL 600. *Three credits*

MAEL 620. SERVICE TO SOCIETY

This course has two components. (1) A study of the critical nature of mission, vision, and values. Personal and organizational core purposes and values that direct strategies and define measures of success are identified and developed. (2) An analysis of how personal and organizational mission, vision, and values interact with the pursuit of social justice. Particular societal issues addressed will include poverty, affordable and accessible health care, safe and affordable housing, sustainable agriculture, quality education, discrimination, and care for the environment. Prerequisite: MAEL 610. *Three credits*

MAEL 630. ACCOUNTING AND FINANCE FOR EXECUTIVES

This course is designed to increase skills in understanding and using financial statements. The course will expose students to the major topics in accounting and finance including: analysis of primary financial statements, break-even analysis, valuation techniques, time value of money, accounting fraud, and Sarbanes-Oxley Act. Prerequisite: MAEL 620. *Three credits*

MAEL 640. HIGH PERFORMING TEAMS

A study of group behavior and how group function effectively. Emphasis is placed on group decision making and increasing efficient and productive group management. The course material will emphasize team building and team interaction from leadership, psychology, and social psychology perspectives. Prerequisite: MAEL 630. *Three credits*

MAEL 650. LEADERSHIP CLASSICS

This course examines executive leadership by exploring leadership theory and great leaders through the lens of classic and contemporary literature. The course allows students to develop a deeper personal and philosophical understanding of ethical leadership by reading and discussing such works as Plato's, *Republic*, Machiavelli's, *The Prince*, *The Bible*, and biographies of great leaders (e.g., George Washington, Abraham Lincoln, Robert E. Lee, Winston Churchill, Martin Luther King, Jr., or Mahatma Gandhi). Prerequisite: MAEL 640. *Three credits*

MAEL 660. ORGANIZATIONAL BEHAVIOR AND TRANSFORMATIONAL CHANGE

This course studies individual and group behavior as they relate to organizational effectiveness. Emphasis is placed on motivation, power and politics, the effect of organization design on effectiveness and how to best manage change. Behavioral science concepts are applied to the management of organizations. Methods of analyzing and improving performance are also addressed. Prerequisite: MAEL 650. *Three credits*

MAEL 670. CONFLICT RESOLUTION AND NEGOTIATION

This course studies conflict, its underlying dynamics, and ways to deal with conflict more productively. The course covers the major causes of conflict, the effects of personality and perception on conflict, and recommended strategies to manage the conflict in our lives and our organizations. We will explore the skills required for the productive management of conflict and discuss how to use and combat (distributive) win-lose style negotiation. Conflict and negotiation in situations involving ethnic, racial, or religious differences are emphasized. Prerequisite: MAEL 660. *Three credits*

MAEL 680. STRATEGIC MARKETING AND PLANNING FOR EXECUTIVES

This course focuses on decision making within a context of strategic marketing and planning. In particular, this course emphasizes decision making as it relates to (1) establishing objectives, given anticipated environmental conditions and existing organizational constraints, and (2) developing a marketing strategy to achieve the objectives. Prerequisite: MAEL 670. *Three credits*

MAEL 690. ETHICAL LEADERSHIP PRACTICUM

Working individually or in small groups, students utilize learning from other courses in practical ways to provide solutions to real world problems. Working in conjunction with a supervising faculty member, students select an organization, conduct a needs assessment, design and implement an appropriate intervention and evaluate the project's effectiveness. Prerequisite: MAEL 680. *Three credits*

BUSINESS

■ C.M.B.A. Master of Business Administration

CMBA 600. OPENING RESIDENCY/ORIENTATION

The objectives of the Opening Residency/Orientation Course are to develop esprit de corps among all new MBA students, as well as the faculty and staff of the program; to give the participants concrete, take-away knowledge in the fundamentals of business education and to set appropriate expectations about the effort, quality and cooperation needed to complete the program. This course provides a basic overview of undergraduate business concepts needed to proceed in the MBA program and allows the student to assess their strength and weaknesses at this particular point in their program. All students must also complete computer knowledge and skills testing to analyze their proficiency in the three major computer

applications for the program.

Students will receive lectures from and be tested by faculty members who will teach the fundamental courses in the core courses and be tested on those principles. Also as a part of the residency, participants are introduced to the goals, expectations and methods that are used throughout the program, including case analysis methodology, business plan preparation and business research and analysis skills and techniques. The ongoing emphasis on relational learning will be explained and stressed as well. The successful completion of this course is required prior to a student proceeding with the Core Courses. Prerequisite: Permission of the MBA Director. *Two credits*

■ C.M.B.A. Core Courses

CMBA 601. BUSINESS ETHICS

Students will concentrate on the understanding of worldviews and their effects in the workplace and how ethical decision-making models rely heavily on the understanding of our own and others worldviews. Some of the topics to be considered include the Sarbanes Oxley Act, earnings management, responsibilities of the board of directors and officers, the auditing function, the role of institutional investors and other stakeholders, as well as issues relating to executive compensation. Extensive use of case studies will be used and required weekly. Prerequisite: CMBA 600. *Three credits*

CMBA 602. MANAGERIAL ECONOMICS

This course analyzes business problems in terms of microeconomic principles and methods. Students are required to apply the economic method to managerial decisions in demand estimation, production and cost analysis, and pricing and competitive strategies. Course material integrates economic theory with statistical techniques and concepts from other business disciplines through a series of analytical models. *Three credits*

CMBA 603. MANAGERIAL ACCOUNTING

The basic concepts of corporate financial statements are developed and explained, with an emphasis on the necessity of understanding these statements, the underlying methodologies used in preparing them and the implications of choices made by accountants. Tools for analyzing profitability, liquidity, leverage, alternatives available within generally accepted accounting principles on financial statements, in terms of management's financial reporting strategy are also explored. *Three credits*

CMBA 604. STRATEGIC FINANCIAL MANAGEMENT

Financial management techniques, policies and theories are discussed and cases, as well as problem-scenario analyses using these topics are fully explored. These topics and policies include: strategies for acquiring and applying current and long-term assets, working capital, total capitalization and profit distribution (presented in the context of share price maximization). Other topics include global financial strategies, leasing, risk analysis, project evaluation and cost of capital. *Three credits*

CMBA 605. STRATEGIC MANAGEMENT CONCEPTS AND APPLICATIONS

This course examines strategic alternatives and choices to be made by companies in view of the opportunities and threats, maximizing their strengths and minimizing their weaknesses. The creation of core competencies to enhance these strategic choices as well as their sustainable competitive advantages is examined. Tiered levels of management are also reviewed. The course integrates learning experiences gained in the prior courses by concentrating on decision to be made at the senior management level. *Three credits*

CMBA 606. ANALYTICAL BUSINESS RESEARCH

This course will involve the study of techniques and principles for systematically monitoring environments-collecting, recording, analyzing and interpreting data using various statistical tools that provide assistance to decision makers that are involved in the selling and marketing of goods, services and ideas. Among the topics covered are data sources, research design, data measurements, sampling procedures, hypothesis testing, correlation and regression and non-parametric techniques. *Three credits*

CMBA 607. STRATEGIC BUSINESS PLANNING

The course is directed at the concepts of new venture creation, both in entrepreneurial and intrapreneurial contexts. Using lecture, case analysis and other teaching methods; the course covers the financial, strategic, legal and market-related aspects of creating a new venture. Topics include opportunity recognition, business planning and financing alternatives. Students, working in small groups will create a new venture business plan for a five year period that will include the acquisition and consolidation of a target company. *Three credits*

CMBA 608. CAPSTONE PROJECT

Every student will complete an individual project involving the in-depth analysis of a selected company with recommended solutions to problems observed and analyzed to senior management of that organization and the course instructors. The project will incorporate the total learning experiences of the program core courses. Prerequisite: CMBA 601-CMBA 607 courses. *Three credits*

CMBA 611-619. SPECIAL CMBA TOPICS

These courses are designed to permit intensive study into topics of special interest to the student that are timely for a concentrated study in particular subject area in the field of Business. Prerequisite: Permission of the MBA Director. *Three credits*

■ M.B.A. Required Core Courses

MMGT 601. ORGANIZATIONAL BEHAVIOR (Formerly MBA 601)

Studies individual and group behavior as they relate to organizational effectiveness. Emphasis is placed on motivation, leadership, power and politics, the effect of organization design on effectiveness, and group processes. Behavioral science concepts are applied to the management of organizations. Methods of analyzing and improving performance are also addressed. *Three credits*

MMGT 602. PRODUCTION/OPERATIONS MANAGEMENT

Investigates relationship of Production/Operations Management to other functional areas. The course covers basic production techniques for both manufacturing and service operations. Problems and special issues encountered in the Production/Operation Management environment will be

explored. Special emphasis will be placed on the process of improving productivity and quality. *Three credits*

MFIN 620. MANAGERIAL FINANCE (Formerly MBA 620)

Studies management of the firm from the financial perspective. The principal concern of the course is the acquisition of the proper quantity of funds under conditions as favorable as possible, and the efficient allocation of these funds among the various types of assets. Topics include valuation theory, capital budgeting, and working capital management, capital structure analysis, dividend policy, and a survey of sources of short-term and long-term funds. *Three credits*

MMKT 640. STRATEGIC MARKETING (Formerly MBA 640)

Provides a foundation for an understanding of the variables and functions in the strategic management of the enterprise's marketing efforts. It includes the study of theory, while developing a practical knowledge of the marketing management system and key concepts. This course is designed to enable managers to achieve a higher quality of decision making in micro as well as macro marketing. *Three credits*

MACC 660. MANAGERIAL ACCOUNTING (Formerly MBA 660)

Acquaints students with the information managers need to manage manufacturing, merchandise, and service organizations. Consideration is given to traditional managerial uses of information from a company's financial accounting system. It critiques the usefulness of adjusted financial accounting information for managerial decisions and explores and evaluates new approaches to designing systems for cost management information. *Three credits*

MMGT 670. BUSINESS AND SOCIETY

(Formerly MBA 670) Studies the modern corporation as a social entity as well as an economic force. The course retains the perspective of a business as a profit oriented producer and/or distributor of products and services. Ethical and social, as well as legal dimensions are added to this perspective and the corporation comes to be seen as an entity with responsibilities to its employees, customers, and society-at-large. Specific decision-making models are used and applied to case studies that focus on real problems in today's business environment. *Three credits*

MMGT 699. BUSINESS POLICY (Formerly MBA 699)

Develops business strategy from a senior management perspective through an integrated approach. Emphasis is placed on creative approaches to defining the problem, identifying alternatives and developing solutions. Complex problem areas encountered in contemporary business environments are analyzed and interpreted. Case studies and simulations are used to develop the student's skills. Prerequisite: 18 hours of MBA core courses—MACC 660, MECO 680, MFIN 620, MGMT 630, MGMT 670, MMKT 640. *Three credits*

■ **M.B.A. Elective Courses**

MECO 650. ECONOMICS OF PUBLIC POLICY

Application of economic theory and methodology to the study of decision making in both the political arena and various government agencies. This will include the study of politics using the economic ways of thinking, various theories of justice and approaches to public policy, analysis of representative/democratic government, study of decision making inside bureaucracies, and development of the process of public policy formulation and implementation. Among the policy areas covered will be an analysis of policy programs in the areas of education, welfare, and health care. *One semester; three credits*

MACC, MECO, MFIN, MITM, MGMT, MMKT 652. SPECIAL TOPICS

Selected special topics in accounting, economics, finance, information technology, management, and marketing. The topics may vary from semester to semester. Course may be repeated more than once depending on topic. Prerequisite: Permission of the instructor. *Three credits*

MECO 680. MANAGERIAL ECONOMICS (Formerly MBA 680)

Applies micro economic theory to management decisions. The topics of the course include: demand theory (including revenue and elasticity concepts); production and distribution theory; cost theory and cost function derivation; economic profit analysis; market structure analysis; pricing models; and other selected applications of microeconomics principles. Prerequisites: ECON 211, 212. *Three credits*

MITM 690. MANAGEMENT OF INFORMATION SYSTEMS (Formerly MBA 690)

Explores and examines the management of information systems from both a business and technical perspective. This course studies the business dimensions of information technology (IT) such as strategic planning and development of operations along with the technical dimensions such as hardware, software, and networks as well as intersections between the two. Topics include leadership and strategic planning, managing information resources, managing information systems operations, managing the new universe of computing, and managing the IT organizational relationships. *Three credits*

MMGT 681. PROJECT MANAGEMENT

The course in project management is designed to develop an integrated approach to project management that will cover optimization models, practical management and organizational practices, and the use of computer applications and software. The focus will be on developing a process and model for managing projects that includes planning and budgeting, organization and structure, scheduling using Gantt and PERT/CPM, resource allocation, and performance and control techniques. Students will be required to complete a project plan, and guest speakers from the field of project management will supplement the class. Prerequisites: MGMT and STAT 221. *Three credits*

MMGT 682. PROJECT ORGANIZATION, PLANNING AND LEADERSHIP

This course examines processes involved with project planning and leadership. Areas examined include scope, communications and closure. The course includes a review of program/portfolio management and reporting relationships. Also covered is a detailed study of organizational, management, and current theory on projected organizations. Prerequisite: MGMT 681. *Three credits*

MMGT 683. PROJECT ANALYSIS AND CONTROL

This course provides in-depth study of procedures and processes related to the control of costs, risk, scheduling, and related activities. Computer methods including MS Project and other programs will be examined. In addition, in-depth analysis of cost, time and quality variance will be studied. Prerequisite: MMTG 681. *Three credits*

■ CATHOLIC STUDIES**MACS 600. CATHOLIC THOUGHT AND CULTURE THROUGH THE AGES**

An interdisciplinary exploration of the wisdom of the Catholic tradition expressed through works of intellect and imagination. from the beginning of the Church up to contemporary times. Classics in literature, art, theology, philosophy, music, the sciences, and/or architecture are discussed. Emphasis is placed on recognizing the integrity of the grounding Catholic vision and on tracing the unified development and expansion of that vision over time. *Three credits*

MACS 610. CATHOLIC BIBLICAL STUDIES

What is a Catholic approach to the study of the Bible? The course will begin with the Church's teaching on biblical interpretation as contained in such documents as *Divino Afflante Spiritu*, *Dei Verbum*, and *The Interpretation of the Church*. Selected texts from the Old and New Testaments will then be studied using the Catholic church's approach to biblical interpretation in contrast to fundamentalism. *Three credits*

MACS 620. CATHOLIC SPIRITUALITY

An exploration of the relationship between religious experience and theological reflection as seen in the works of outstanding spiritual writers of the Catholic tradition, including St. Benedict, St. Francis and St. Clare, St. John Baptist de La Salle. This will include attention to prayer, forms of spirituality, and asceticism. *Three credits*

MACS 630. GOD AND HUMAN PERSON

An investigation of the Catholic doctrine of the human person in relation to God, including topics such as creation and fall, sin and grace, justification and sanctification, and eschatological fulfillment. *Three credits*

MACS 640. CHRISTOLOGY

Understanding the person, presence and mission of Christ in Scripture, doctrine and dogma and in contemporary theology. *Three credits*

MACS 650. THEOLOGY OF SACRAMENTS AND WORSHIP

An examination of the historical development of sacramental life in the Church and theological reflection on the sacraments. This will include contemporary approaches to the theology of sacrament especially in relation to Christology and eschatology. *Three credits*

MACS 660. MORAL THEOLOGY

A study of the foundations of the Christian moral life, including freedom and moral agency, moral norms and moral reasoning, the place of scripture, tradition, and authority in the moral life, virtues and development of moral character. *Three credits*

MACS 670. CATHOLIC SOCIAL ETHICS

Critical analysis of the Biblical and theological foundations for Catholic social teaching and the teachings of the Catholic church on matters such as war and peace; the rights and duties of states and citizens; the rights, duties, and obligations of members of a family; the rights, duties, and obligations of parents with respect to their children. *Three credits*

MACS 680. CATHOLICISM AND OTHER FAITH TRADITIONS

Drawing upon the teachings of Vatican II and other ecclesial documents, this course will explore the relationship between Catholicism and other faith traditions, both Christian and non-Christian. *Three credits*

MACS 690. ECCLESIOLOGY AND MINISTRY

A consideration of the nature and structure of the Catholic Church, including its apostolic origins, the Church as communion and sacrament, magisterium and authority, the relation of the local and universal Church, evangelization, ministry and mission. Students will reflect upon their ministry plans/work in relation to the Church's mission. *Three credits*

EDUCATION**■ Curriculum and Instruction in Education (CIED)****CIED 600. PROFESSIONAL FOUNDATIONS II**

Students acquire background and skill in curriculum design and instructional strategies and methods, instructional planning and guidance, analysis of patterns of classroom dynamics, classroom assessment, and classroom inquiry in conjunction with perspectives on school reform, teacher leadership, and lifelong professional development. Restricted to students in the MAT program or by permission of instructor and program director. *Three credits*

CIED 601. ANALYSIS OF TEACHING (Formerly MED 601)

Students develop skill in analyzing patterns of classroom dynamics and become proficient in identifying specific instructional behaviors associated with specific learner outcomes. The student acquires perspective in observing and being observed in live classroom settings and is involved in real decision-making issues. These activities lead to the refinement of instruction and the improvement of learner performance. *Three credits*

CIED 602. CONTEMPORARY INSTRUCTIONAL GUIDANCE

Students investigate and implement best practices in classroom management and instructional guidance, focusing on the challenges of engaging

learners in self-management and effective classroom participation. *Three credits*

CIED 603. CONTEMPORARY CLASSROOM METHODS (Formerly MED 636)

Students develop skill in decision-making in the K-12 classroom. Approaches to managing the classroom, selecting resources, creating sound instructional strategies, designing instructional units and lesson plans, and reaching decisions that orchestrate the complex implementation of effective learning are considered. *Three credits*

CIED 604. INSTRUCTIONAL STRATEGIES (Formerly MED 611)

Students identify, analyze, compare, and justify varied approaches to creating viable learning environments that successfully serve the needs of diverse learner populations. *Three credits*

CIED 608. ASSESSMENT OF LEARNING AND PRACTICE (Formerly MED 608)

Students explore various means of acquiring data to determine learning progress among both groups and individuals, with emphasis on hard-to-measure dimensions of learning. Students consider standard measures of learning, standards-driven instruction, and emerging alternative approaches to developing and assessing authentic products, projects and performances. Students gain experience with traditional designs for evaluation and new assessment tools. *Three credits*

CIED 609. CLASSROOM MANAGEMENT AND METHODS

Students develop and practice competence in various classroom management methods, including unit and lesson planning, interpersonal and group communication skills, and principles of effective classroom organization. Course topics include analyzing, comparing, evaluating, and applying various theories and methods of classroom motivation, management, and discipline. Ten hours of field experience required. *One semester; three credits*

CIED 610. CURRICULUM DESIGN AND DEVELOPMENT (Formerly MED 610)

Students examine a variety of curriculum designs and the process of planned educational change, looking for evidences of the dimensions of learning in contemporary curricular models. Using a constructivist emphasis, students create curriculum based on current theories of design. Theoretically derived alternatives are also evaluated in terms of implementation and assessment within particular instructional environments. *Three credits*

CIED 611. CURRICULUM AND METHODS IN SCIENCE, K-8

Students examine theory and practice in transforming the methods of inquiry and the knowledge base of the sciences into the elementary and middle school science curriculum, emphasizing content and performance standards, planning for instruction, teaching methods, and materials, including the integration of technology into the elementary and middle school science curriculum. *Three credits*

CIED 612. CURRICULUM AND METHODS IN SOCIAL STUDIES, K-8 (Formerly MED 658)

Students examine theory and practice in transforming the methods of inquiry and the knowledge base of the social studies into the elementary and middle school social studies curriculum, emphasizing content and performance standards, planning for instruction, teaching methods, and materials, including the integration of technology into the elementary and middle school social studies curriculum. *Three credits*

CIED 613. CHARACTER EDUCATION (Formerly MED 614)

Students examine approaches to character education as currently practiced in K-12 schools in the United States. Various models are reviewed and evaluated for effectiveness. Research into programs currently in use in the Mid-South will be required. *Three credits*

CIED 615. RHYTHMIC ACTIVITIES AND GAMES

Students explore activities and games designed for elementary age students. *One credit*

CIED 621. CONCEPTS OF MATHEMATICS IN ELEMENTARY EDUCATION

Candidates study number theories and systems, decimals and fractions, probability and statistics, data analysis and display, algebra, geometry, problem-solving, and quantitative reasoning skills with applications for teaching in the elementary classroom. Placement assessment determines whether course is required for graduation and licensure. *Three credits*

CIED 622. CURRICULUM AND METHODS IN MATHEMATICS, K-8

Students examine theory and practice in transforming the methods of inquiry and the knowledge base of mathematics into the elementary and middle school mathematics curriculum, emphasizing content and performance standards, planning for instruction, teaching methods, and materials, including the integration of technology into the elementary and middle school mathematics curriculum. *Three credits*

CIED 623. CURRICULUM AND METHODS IN LANGUAGE ARTS, K-8 (Formerly MED 655)

Students examine theory and practice in transforming the methods of inquiry and the knowledge base of the language arts into the language curriculum, emphasizing content and performance standards, planning for instruction, teaching methods, and materials, including the integration of technology into the elementary and middle school language arts curriculum. Specialized instruction in teaching elementary and middle school students how to read is an integral part of this course. *Three credits*

CIED 624. CREATIVE EXPRESSION IN ELEMENTARY SCHOOLS, K-6

Candidates integrate concepts of music, visual art, drama, and dance into the elementary classroom. *One credit*

CIED 626. INTEGRATING CURRICULUM (Formerly MED 609)

Students examine features of integrated curricula and review designs of quality work, including standards-driven instruction, essential elements of quality work, integration of content to strengthen transfer of knowledge, and frameworks for designing both integrated and interdisciplinary work. Students create original work for learners which includes a product focus, product standards, novelty and variety, choice, freedom from initial failure, and authenticity. A variety of performance-based and alternative assessments are included in the integrated framework. *Three credits*

CIED 627. MIDDLE SCHOOL STRATEGIES (Formerly MED 612)

Students review the elements of high performing middle schools and the characteristics of the young adolescent. Specific components include interdisciplinary teaming, flexible block-of-time scheduling, quality and authentic work designed to address needs of the adolescent, alternative assessment, teacher-based guidance, exploratory experiences, classroom/team management, and current middle school issues. Emphasis is given to the developing and changing roles and relationships of middle school teacher leaders. *Three credits*

CIED 630. CURRICULUM AND ASSESSMENT IN SECONDARY SCHOOLS

Students planning to teach in the secondary school setting engage in curriculum design and development in their content areas and plan assessment strategies that encourage higher dimensions of learning and understanding in high school students. *Three credits*

CIED 633. TEACHING MATHEMATICS, 7-12

Required curriculum and instructional methods course for all students completing a licensure program in secondary mathematics. *One semester; three credits*

CIED 634. TEACHING SCIENCE, 7-12

Required curriculum and instructional methods course for all students completing a licensure program in secondary science. *One semester; three credits*

CIED 635. TEACHING ENGLISH/LANGUAGE ARTS, 7-12

Required curriculum and instructional methods course for all students completing a licensure program in secondary English. *One semester; three credits*

CIED 636. TEACHING HISTORY/SOCIAL STUDIES, 7-12

Required curriculum and instructional methods course for all students completing a licensure program in secondary history. *One semester; three credits*

CIED 637. TEACHING FOREIGN LANGUAGE, K-12

Required curriculum and instructional methods course for all students completing a licensure program in a foreign language. *One semester; three credits*

CIED 638. TEACHING ART K-12

Required curriculum and instructional methods course for all students completing a licensure program in visual arts. *One semester; three credits*

CIED 641. CONTEMPORARY SECONDARY METHODS, 7-12

Strategies for use in the secondary English, mathematics, social studies, science, and foreign language classrooms presented and practiced by students. Ten to fifteen hours of field experience required. *Three Credits*

CIED 645. SCHOOL HEALTH

Students learn about school health knowledge and skills required for teachers, including health services, healthful school living, health screening, home and school safety, health content skills and materials, and first aid with CPR. *One credit*

CIED 653. INTERNSHIP (Formerly MED 653)

Under the guidance of an assigned cooperating or mentor teacher and a University supervisor, the graduate student assumes the responsibilities of a classroom teacher. During the internship, students must complete a portfolio representing their impact on student learning and their own professional development while in an initial licensure program. Students must also enroll in CIED 654, Professional Seminar. Restricted to students who entered under previous catalogs. *Three credits*

CIED 654. PROFESSIONAL SEMINAR (Formerly MED 654)

A weekly seminar for intern teachers. Students review professional development and resolve issues arising from the intern experience. Students must also be enrolled in CIED 653, Intern Teaching. Restricted to students who entered under previous catalogs. *One credit*

CIED 658. TEACHING PRACTICUM I

Students are placed in a K-12 classroom for a minimum of 30 clock-hours of observing and assisting a licensed teacher. *One credit*

CIED 663. TEACHING INTERNSHIP I

Students are assigned to a K-12 classroom with increasing levels of responsibility for a full semester and are required to attend a weekly one-hour seminar. During the Teaching Internship I, students not only improve their instructional and classroom methods, but they also become reflective and analytical about their professional practice, utilizing clinical methods, assessment strategies, and classroom inquiry techniques to learn about their impact on student learning. Students begin to compile a final portfolio to represent their total learning in the initial licensure program. Both University supervision and school-site mentoring is a part of Teaching Internship I. Restricted to students in the MAT program. Restricted to students in the M.A.T. program who entered under previous catalogs. *Three credits*

CIED 664. TEACHING INTERNSHIP II

Students are assigned to a K-12 classroom with increasing levels of responsibility for a full semester and are required to attend a weekly one-hour seminar. During the Teaching Internship II, as students continue to improve instructional and classroom methods, they complete a culminating classroom inquiry project with reference to the knowledge base in education and to data about their impact on student learning. Students also complete a final portfolio to represent their total learning in the initial licensure program. Both University supervision and school-site mentoring is a part of Teaching Internship II. Restricted to students in the MAT program. Restricted to students in the M.A.T. program who entered under previous catalogs. *Three credits*

CIED 665. ALTERNATIVE LICENSURE I

Students admitted to an alternative licensure program participate in a seminar during their first half-year of teaching in a K-12 environment and are coached in their performance, while developing the first phase of a teaching portfolio. *One credit*

CIED 666. ALTERNATIVE LICENSURE II

Students admitted to an alternative licensure program participate in a seminar during their second half-year of teaching in a K-12 environment and are coached in their performance, while developing the second phase of a teaching portfolio. *One credit*

CIED 667. ALTERNATIVE LICENSURE III

Students admitted to an alternative licensure program participate in a seminar during the first half of their second year of teaching in a K-12 environment and are coached in their performance, while developing the third phase of a teaching portfolio. *One credit*

CIED 668. ALTERNATIVE LICENSURE IV

Students admitted to an alternative licensure program participate in a seminar during the second half of their second year of teaching in a K-12 environment and are coached in their performance, while completing their teaching portfolio. *One credit*

CIED 671. PORTFOLIO AND PRACTICUM I

Students in the M.A.T. degree program or other post-baccalaureate teacher licensure programs acquire classroom experience while engaging in a first phase of required assessment activities leading to initial development of their portfolio. Must be taken during the first one-third of coursework in the M.A.T. or post-baccalaureate program. *One credit*

CIED 672. PORTFOLIO AND PRACTICUM II

Students in the M.A.T. degree program or other post-baccalaureate teacher licensure programs acquire classroom experience while engaging in a second phase of required assessment activities leading to further development of their portfolio. Must be taken during the first two-thirds of coursework in the M.A.T. or post-baccalaureate program. *One credit*

CIED 673 TEACHING PRACTICUM III

Culminating semester-long experience of supervised teaching for students in the M.A.T. degree program or other post-baccalaureate teacher licensure programs. During Teaching Practicum III, students are expected to improve their instructional methods and classroom management, to become more reflective and analytical about their own professional practice, and to utilize clinical methods, assessment strategies, and classroom inquiry techniques to investigate their impact on student learning. Students continue to compile their portfolio and are required to take CIED 674, Professional Seminar and Portfolio III, with CIED 673. There is a \$150.00 fee attached to this course. *Three credits*

CIED 674. PROFESSIONAL SEMINAR AND PORTFOLIO III

Seminar accompanies CIED 673 and supports students in their experience of supervised teaching in the M.A.T. degree program or other post-baccalaureate teacher licensure programs. During the seminar, students complete the final components of required assessments for their licensure program, including their portfolio. *One credit*

CIED 675 TYPE I/TYPE II ALTERNATIVE LICENSURE A

This zero-credit course is for students seeking Alternative I or II licensure ONLY. Students will be supervised and mentored during their time enrolled in this course. A \$575.00 fee will be automatically assessed to those enrolled. *One semester, 0 credits*

CIED 676 TYPE I/TYPE II ALTERNATIVE LICENSURE B

This zero-credit course is for students seeking Alternative I or II licensure ONLY. Students will be supervised and mentored during their time enrolled in this course. A \$575.00 fee will be automatically assessed to those enrolled. *One semester, 0 credits*

CIED 677 TYPE I/TYPE II ALTERNATIVE LICENSURE C

This zero-credit course is for students seeking Alternative I or II licensure ONLY. Students will be supervised and mentored during their time enrolled in this course. A \$575.00 fee will be automatically assessed to those enrolled. *One semester, 0 credits*

CIED 678 TYPE I/TYPE II ALTERNATIVE LICENSURE D

This zero-credit course is for students seeking Alternative I or II licensure ONLY. Students will be supervised and mentored during their time enrolled in this course. A \$575.00 fee will be automatically assessed to those enrolled. *One semester, 0 credits*

CIED 680-690. SPECIAL TOPICS

Selected topics of interest. Permission of the Director of the Graduate Education Program required. *Three credits*

■ Education of the Diverse Learner (EDDL)**EDDL 630. EDUCATING SPECIAL NEEDS LEARNERS** (Formerly MED 630)

Students conduct a comprehensive survey of exceptionalities and disabilities among learners. Students learn to identify exceptionalities and become familiar with referral processes, classroom accommodations and interventions, and resources for facilitating services to exceptional learners. *Three credits*

EDDL 631. INCLUSION TECHNIQUES (Formerly MED 631)

Students explore classroom strategies and management techniques in dealing with exceptional students who are included in regular classroom settings. *Three credits*

EDDL 632. TEACHING DIVERSE LEARNERS (Formerly MED 632)

Students explore issues and themes in multicultural education, studying human diversity with its many faces and learning to develop culturally

appropriate curricula, classrooms, and schools. *Three credits*

EDDL 633. LEARNING STYLES AND STRATEGIES (Formerly MED 633)

Students investigate the implications of learning style diversity for the practice of teaching and learning while identifying and examining their own learning styles from a variety of theoretical perspectives. Evaluating these perspectives in the light of recent research about teaching and learning, students examine and propose ways in which learning style theory can be used to improve differentiated instruction. *Three credits*

EDDL 634. DIFFERENTIATING INSTRUCTION

Students explore the special issues and challenges of differentiating instruction to meet the needs and utilize the gifts of individual learners, including modification of methods and strategies, adaptation of assessment techniques, and management of differentiated classrooms. *Three credits*

EDDL 638. CLASSROOM AND BEHAVIOR MANAGEMENT

Candidates learn about the vast array of behaviors associated with K-12 students with a wide variety of special needs and the impact of those behaviors in the classroom. Strategies for promoting positive behaviors and effective verbal and non-verbal communication strategies are highlighted in this course. *Three credits*

EDDL 640. ASSESSMENT AND EXCEPTIONALITY

Candidates gain an understanding of various formal and informal procedures for assessing K-12 students with a range of special needs. The candidate administers, scores, interprets, and reports scores from a battery of measurements. *Three credits*

EDDL 651. CONSULTATION AND CONTEXTS

Candidates learn that schools, families, and surrounding communities are important contexts for working with K-12 students with special needs. Collaboration with teachers, support personnel, families, and the broader community as well as their roles and responsibilities are considered. *Three credits*

EDDL 680-690. SPECIAL TOPICS

Selected topics of interest. Permission of the Director of the Graduate Education Program required. *Three credits*

■ **Foundations of Education (EDFD)**

EDFD 600. PROFESSIONAL FOUNDATIONS I

Students acquire background in the professional foundations of education, emphasizing perspectives on the profession of teaching, the teacher as a leader, the history of schooling, philosophies of curriculum, social and cultural influences on schools and classrooms, the diversity of student populations, and the politics, economics, and law of education. Restricted to students in the MAT program or by permission of instructor and program director. *Three credits*

EDFD 602. PORTFOLIO AND PROFESSIONAL DEVELOPMENT

Students in the advanced professional development programs analyze and assess their professional growth, review and update their professional portfolios, establish a professional and development plan, and present this plan to the faculty. Restricted to students in the M.Ed. and M.S.E.L. programs for advanced professional development. *One credit*

EDFD 603. FOUNDATIONS OF EDUCATION (Formerly MED 643).

Students gain an overview of the philosophical, curricular, cultural, social, historical, legal, economic, and political foundations of education as necessary background for professionalism in teaching. Students reflect on the past and engage current issues to develop perspectives for professional practice. *Three credits*

EDFD 604. MIDPOINT ASSESSMENT

This is a required course for Master of Education students. It is to be taken during the third semester of the program. *One semester; one credit*

EDFD 605. PHILOSOPHY AND ETHICS OF EDUCATION (Formerly MED 605)

Students explore the historical bases of educational philosophy and ethics, interpreting modern issues and problems through an ethical and philosophical perspective and with particular attention to the Lasallian tradition. Students also develop or refine their own reflective philosophies of education and ethical principles as a value component in educational decision-making. *Three credits*

EDFD 606. LEGAL AND SOCIAL ISSUES (Formerly MED 606)

Students examine the statutory and judicial influences upon education, both historical and current. Through exposure to social and cultural issues and dilemmas, students engage in dialogue about personal and professional rights and responsibilities as an educator. The student prepares position papers on the legally and socially appropriate roles of the educator in both private and public educational settings. *Three credits*

EDFD 607. SCHOOL, FAMILY, AND COMMUNITY (Formerly MED 607)

Students examine family, cultural, and community patterns in relation to the educator's roles and responsibilities to develop and foster strong educational partnerships. *Three credits*

EDFD 610. HUMAN DEVELOPMENT (Formerly MED 600)

Students acquire background in human development over the lifespan, investigate stages from childhood to adulthood with respect to physical, cognitive, and social development, and develop educational applications. *Three credits*

EDFD 612. ADVANCED EDUCATIONAL PSYCHOLOGY (Formerly MED 602)

Students explore applications of psychological principles and their potential role in instruction. Special attention is given to the application of

psychological principles for the improvement of teaching and learning. Students are challenged to develop critical thinking skills and recognize their personal set of coherent views relevant to their own practice. Opportunities for conducting research in the application of educational psychology are provided. *Three credits*

EDFD 614. MORAL DEVELOPMENT AND EDUCATION (Formerly MED 614)

Students examine and critically assess several theories of moral development—classical, modern, and contemporary. The focus is on how human beings acquire morally responsible character traits and the ability to engage in moral reasoning. The ideas considered form the foundation for evaluating the appropriateness of various educational approaches to teaching values. *Three credits*

EDFD 615. CHILD DEVELOPMENT AND LEARNING

Students explore models and theories of child development and research-tested approaches in order to implement developmentally appropriate strategies of teaching, learning, and instructional guidance in the elementary and middle-level classroom and school. *Three credits*

EDFD 617. ADOLESCENT DEVELOPMENT AND LEARNING (Formerly MED 617)

Students examine the special nature of adolescence as a developmental stage, or set of stages, with respect to physical, cognitive, and social dimensions of the adolescent experience. Applications in developmentally appropriate educational practices for middle and high school are also considered. *Three credits*

EDFD 630. AMERICAN EDUCATION: PAST, PRESENT, FUTURE (Formerly MED 642)

Students examine the cultural, social, political, and economic forces that have influenced the history of American education, shaping the schools we have today. Particular attention is paid to various reform movements in the past and present and their power to change American education. Students analyze and evaluate current efforts to redesign schools, to rethink teaching and learning practice, and to shape a new future for American education. *Three credits*

EDFD 640. EDUCATIONAL RESEARCH (Formerly MED 603)

Students acquire research skills in natural settings by pursuing questions and issues within a typical classroom or school building or relative to matters of educational policy and practice. The student designs, employs and evaluates investigations using both qualitative and quantitative approaches. This course is especially appropriate for students who are contemplating additional graduate work beyond the master's degree, who will undertake a thesis or dissertation, and who wish a broad preparation in inquiry skills for these purposes. *Three credits*

EDFD 641. INQUIRY FOR TEACHERS (Formerly MED 604)

Students acquire research skills appropriate for ongoing classroom research into practice as conducted by teachers. Engaging primarily qualitative methods, students learn to design and conduct classroom and school studies in the emerging tradition of teacher inquiry. This course is especially appropriate for students who are not contemplating additional graduate work beyond the master's degree and who will not write a thesis or dissertation during their foreseeable future careers. *Three credits*

EDFD 675. CAPSTONE PROJECT (Formerly MED 675)

Under the direction of an assigned advisor, students design, implement, and evaluate a project relevant to a current issue or problem of practice, presenting their results in a public forum. Students must also complete program assessments to determine their progress toward program goals. Prerequisite: Completion of all other courses. *Four credits*

EDFD 680-690. SPECIAL TOPICS

Selected topics of interest. Permission of the Director of the Graduate Education Program required. *Three credits*

■ **Educational Technology (EDTC)**

EDTC 680-690. SPECIAL TOPICS

Selected topics of interest. Permission of the Director of the Graduate Education Program required. *Three credits*

■ **Education (EDUC)**

EDUC 538. TEACHER INQUIRY AND ASSESSMENT

Students seeking initial teaching licensure through Christian Brothers University who have not been adequately inducted into or oriented to CBU's approach to teacher inquiry and teacher work sample methodology as a component of the assessment of K-12 student learning will be required to take this seminar as part of the program of study. See description of EDFD 638 for content. *One credit*

EDUC 553. INTERNSHIP

Under the guidance of an assigned cooperating or mentor teacher and a University supervisor, the candidate assumes the responsibilities of a classroom teacher. During the Internship, students must complete a portfolio representing their impact on student learning and their own professional development while in a licensure program. See description of CIED 653. There is a \$150.00 fee attached to this course. *Three credits*

EDUC 554. PROFESSIONAL SEMINAR

A weekly seminar for intern teachers. Students review professional development and resolve issues arising from the intern experience. Students must also be enrolled in EDUC 553. See description of EDUC 553. *One credit*

■ **Leadership (LEAD)**

LEAD 601. TEACHER AS LEADER: RENEWING THE PROFESSION (Formerly MED 640)

Students analyze teacher leadership through multiple frameworks: the sociology of the teaching profession, organizational behavior in educational settings, reform and renewal efforts, adult development models, professional standards for teachers, and leadership strategies. Advocacy skills are developed through personal and collaborative plans for ongoing professional development. *Three credits*

LEAD 605. POLICY PERSPECTIVES FOR EDUCATORS (Formerly MED 641)

Students examine the organizational behavior of schools and school systems, analyzing the politics, economics, finance, and sociology of education, with special emphasis on the teacher's and principal's roles as professional leaders with perspective vision on schools and society. Students acquire in-depth understanding of the challenges of change and the moral exercise of power. *Three credits*

LEAD 607. SCHOOL, PARENT AND COMMUNITY PARTNERSHIPS

Program participants acquire and apply knowledge about the important role of strong community and public relations for schools and develop skills and plans conducive to effective community and public relations. *One semester; three credits*

LEAD 610. EXPLORING SCHOOL LEADERSHIP (Formerly MED 670)

Students explore the roles and responsibilities of school leaders and assess their own capacity for leadership in a K-12 setting. The role of the principal in creating community in the school, the nature of skillful moral leadership in a rapidly changing world, and the art of reflection on the craft of administration are emphasized. Restricted to participants in the Educational Leadership Program or by permission of instructor. *Three credits*

LEAD 615. STRATEGIES FOR WHOLE SCHOOL RENEWAL (Formerly MED 639)

Students explore strategies for renewing schools based on research into effective and ineffective practices for bringing about broad-based and whole-school change. Issues of school culture and context, leadership, and factors that resist change are investigated and engaged through case studies combined with principles for effective practice. *Three credits*

LEAD 620. SUPERVISION AND TEACHER DEVELOPMENT

Students examine varied approaches to supervision and teacher development in school settings, emphasizing the role of the supervisor as a facilitator of school improvement and as a collaborative partner in enhancing school curriculum and classroom practices. Restricted to participants in the Educational Leadership Program or by permission of instructor. *Three credits*

LEAD 625. MANAGING THE MODERN SCHOOL

Students acquire background about the multiple management functions of schools and school leaders, including responsibilities for academic programs, student services, human and fiscal resources, facilities and technology, community and public relations, legally sound operations, and central office communications. Through a problem-based approach, students integrate these functions and experience the complexity of ethical leadership in the school environment. Restricted to participants in the Educational Leadership Program or by permission of instructor. *Three credits*

LEAD 626. MANAGING THE PRIVATE SCHOOL

Students planning to lead a private school acquire background about the context for private school operations and the multiple management functions of private school leaders, including responsibilities for academic programs, student services, human resources, institutional advancement and development, fiscal management, facilities and technology, community, parent and public relations, and legally sound operations. Through a problem-based approach, students integrate these multiple functions and experience the complexity of leading in the private school environment. Restricted to participants in the Educational Leadership Program or by permission of instructor. *Three credits*

LEAD 630. ORGANIZATIONAL INQUIRY (Formerly MED 665)

Students develop the art and science of conducting inquiry into organizational issues and problems, with the aim of improving schools and school systems. Using both quantitative and qualitative methods, students conduct evaluation studies about school effectiveness and academic achievement and in-depth inquiries into school culture, climate, systems, structures, and specific programs with a school-wide impact. *Three credits*

LEAD 648. LAW FOR SCHOOL LEADERS

Program participants acquire and develop conceptual knowledge about legal issues that impact schools and the legal environment of schools, develop awareness of and alertness to legal risks and responsibilities, conduct legal research, and consult with school leaders about legal problems and use of legal counsel. *Three credits*

LEAD 674. ADMINISTRATIVE INTERNSHIP

After being selected for the internship by a school or school system, program participants engage in school- and system-based leadership activities supported by a mentoring team and University faculty. Enrollment restricted to those completing the internship route. There is a \$100.00 fee attached to this course. *Three credits*

LEAD 675. PORTFOLIO I

The portfolio and overall professional development of the program participant is reviewed and assessed by a team of mentors and faculty members. *One credit*

LEAD 676. PORTFOLIO II

The portfolio and overall professional development of the program participant is reviewed and assessed by a team of mentors and faculty members. *One credit*

LEAD 679. ADVANCED LEADERSHIP SEMINAR

Program participants seeking the PAL license engage in a culminating integrative seminar to reflect on current issues in school leadership, analyze their strengths and weaknesses, and set professional development goals for themselves. *Two credits*

LEAD 680-690. SPECIAL TOPICS IN EDUCATIONAL LEADERSHIP

Special topic courses or directed studies in educational leadership, administration, and supervision approved by the Department of Education and the Director of the Educational Leadership Program. *One to three credits*

■ Reading Education (READ)

READ 605. CURRICULUM AND METHODS IN LANGUAGE ARTS, K-3

Students examine the theory and practice in transforming the methods of inquiry and the knowledge base of the language arts into language curriculum, emphasizing content and performance standards, planning for instruction, teaching methods and materials, including the integrating of technology into the elementary school language arts curriculum. Specialized instruction in teaching grades K-3 to read is an integral part of this course. *Three credits*

READ 606. CURRICULUM AND METHODS IN LANGUAGE ARTS, 4-8

Students examine theory and practice in transforming the methods of inquiry and the knowledge base of the language arts into the language curriculum, emphasizing content and performance standards, planning for instruction, teaching methods and materials, including the integration of technology into the middle school language arts curriculum. Specialized instruction in teaching grades 4-6 how to read is an integral part of this course. *Three credits*

READ 628. ADOLESCENT LITERATURE (Formerly CIED 628)

Students engage in the study of literature written for adolescents and learn how to integrate literature into the teaching of the language arts and literacy instruction in the middle school and the high school. *Three credits*

READ 629. READING AND WRITING ACROSS THE CURRICULUM

(Formerly CIED 629)

Students planning to teach in the secondary school setting learn about the importance of teaching reading within the content areas and about using reading and writing strategies to strengthen student literacy and learning. *Three credits*

READ 630. FOUNDATIONS OF LITERACY

This four week intensive course of study incorporates a research-based, structured, and multisensory approach designed to help assist children in the acquisition of reading, speaking, listening, writing, and thinking skills. *Six credits*

READ 631. INTEGRATION OF LITERACY

This four week intensive course of study further extends the training provided in the Foundations of Literacy, READ 630. Participants will apply skills that utilize advanced techniques in the language continuum. *Six credits*

READ 632. THE CHALLENGED READER (Formerly CIED 632)

Candidates master instructional strategies used to enhance the learning and instruction of K-12 students with reading disabilities in both the regular and special education classroom. Topics include assessment, modification of instruction, research-based instructional practices in reading, and technology. *Three credits*

READ 633. READING ASSESSMENT STRATEGIES

This course is designed to provide knowledge and experience with a variety of evaluation tools and techniques to assess individual learner strengths and needs as well as how to create appropriate learning experiences based on assessment data. This course is required for the Reading Endorsement. *Three credits*

READ 634. THE READING AND WRITING CONNECTION

This course will provide strategies to promote various kinds of writing as well as an understanding of the writing process. Strategies to integrate content areas to support the reading and writing growth will be explored. This course is required for the Reading Endorsement. *Three credits*

■ Religious Education (RLED)

RLED 620. PASTORAL FOUNDATIONS OF CATHOLIC EDUCATION

Students examine key dimensions of Catholic theology as a support for understanding the role and mission of Catholic education and to understand their responsibilities as leaders and teachers in Catholic schools. *Three credits*

RLED 625. CATHOLIC EDUCATION AND THE LASALLIAN TRADITION

Students explore the foundations of education from a Catholic perspective and in relation to the Lasallian tradition and mission. *Three credits*

RLED 630. CURRENT ISSUES IN CATHOLIC EDUCATION

Students analyze contemporary concerns in the Catholic school environment from historical, theological, and educational perspectives. *Three credits*

RLED 640. THE CATHOLIC TEACHER

Students examine the unique position of the Catholic school teacher as role model, catechist, inspiring intellectual, and spiritual mentor. *One credit*

RLED 645. THE CATHOLIC SCHOOL LEADER

Students examine the unique position of the Catholic school leader in its spiritual, instructional, community-building, and managerial dimensions. *One credit*

RLED 650. SPIRITUALITY AND EDUCATION

Students consider the spiritual dimensions of teaching and learning, the role of spiritual development in the life of the teacher and the community life of the school, and the curriculum and co-curriculum of the school. *Three credits*

RLED 651. CURRICULUM AND METHODS IN RELIGIOUS EDUCATION, K-6

Students explore appropriate curriculum and instruction for religious education programs and courses in the elementary school or at the elementary level. *Three credits*

RLED 652. CURRICULUM AND METHODS IN RELIGIOUS EDUCATION, 7-12

Students explore appropriate curriculum and instruction for religious education programs and courses in the secondary school or at the secondary level. *Three credits*

RLED 660. LASALLIAN STUDIES FOR EDUCATORS

Students study key documents from the Lasallian tradition of education and analyze the scope and substance of the Lasallian educational mission worldwide. *Three credits*

RLED 680-690. SPECIAL TOPICS IN RELIGIOUS EDUCATION

Special topic courses or directed studies in religious education or Catholic education approved by the Chair of the Department of Education and the Director of the Graduate Education Program. *Three credits*

ENGINEERING MANAGEMENT**ENGM 600. ENGINEERING MANAGEMENT THEORY**

Management theories, concepts, and applications in an engineering or other technical environment; roles and responsibilities of the engineering manager as integral part of an organization's overall performance; motivation and leadership theories and methodologies. *Three credits*

ENGM 601. APPLICATIONS IN ENGINEERING MANAGEMENT

(Formerly MEM 601)

Engineering's role in the firm; organization and structure; leadership and motivation; project management; concepts, methodologies, and procedures for engineering management. *Three credits*

ENGM 602. ENGINEERING ACCOUNTING (Formerly MEM 602)

Uses and limitations of accounting information; measurements, recording of economic events; analysis, control, reporting of financial events; interpretation and application. *Three credits*

ENGM 603. ENGINEERING FINANCE (Formerly MEM 603)

Understanding of financial decisions by corporations. Topics include return on investment; return on assets; asset management; capital planning; budgets, controls, taxes, profit centers; financial and risk analysis. *Three credits*

ENGM 604. SOCIAL, LEGAL AND ETHICAL CONSIDERATIONS FOR ENGINEERING MANAGERS (Formerly MEM 604)

Advanced seminar on impact of technology and engineering processes on social, business and government institutions; issues of the engineer and scientist and their roles as catalyst for societal change. *Three credits*

ENGM 605. QUALITY ASSURANCE (Formerly MEM 605)

Statistical quality control methods for products and services; design of quality control systems; control of quality control inputs. Lecture and problem solving. *Three credits*

ENGM 606. COMPUTER APPLICATIONS (Formerly MEM 606)

Computer-aided design and manufacturing; business applications; personal computers information storage; networks; computer graphics; future applications; management systems. *Three credits*

ENGM 607. OPERATIONS RESEARCH (Formerly MEM 607)

Models and methods of operations research in solving engineering and management problems. Includes linear models, linear programming, duality, post optimality and network analysis. *Three credits*

ENGM 621. ENGINEERING LAW (Formerly MEM 621)

Legal principles and procedures; contracts and patents; liability, product liability, computer and environmental law; government regulation. *Three credits*

ENGM 624. KNOWLEDGE ENGINEERING (Formerly MEM 624)

Concepts and applications of Artificial Intelligence, Expert Systems, Artificial Neural Networks, Genetic Algorithms, and Software Agents. *Three credits*

ENGM 636. COMPUTER NETWORKS (Formerly MEM 636)

Fundamentals of computer networks. Introduction to computer networking elements, architectures and protocols. Design and analysis of networks: topology, physical and logical communication and applications. *Three credits*

ENGM 637. FILE ORGANIZATION AND DATA BASE MANAGEMENT

(Formerly MEM 637)

Survey of current database approaches and systems. Topics include DBMS types; architecture; introduction to SQL; query optimization. DB management project required. *Three credits*

ENGM 690. ENGINEERING MANAGEMENT MASTER PROJECT

(Formerly MEM 690)

Technical project complete with written report or thesis. This will be a publishable and significant report on an investigation into a scientific and/or engineering management topic which has been approved by the School of Engineering. *Three credits*

ENGM 691, 692, 693. SPECIAL TOPICS (Formerly MEM 691, 692, 693)

One to Three credits

ENGM 695. RESEARCH METHODS IN ENGINEERING MANAGEMENT

Methods used in engineering management research. Emphasis on problem formulation, proposal preparation, oral presentation, data analysis, and experimentation; thesis proposal. *Three credits*

ENGM 696. THESIS

Thesis and oral presentation prepared demonstrating proficiency in analyzing, solving, and implementing a solution to an engineering management problem. (Prerequisite: ENGM 695) *Three credits*

ENGM 698. PROFESSIONAL SEMINAR (Formerly MEM 698)

One to Three credits

ENGM 699. RESEARCH (Formerly MEM 699)

One to Three credits