COURSE DESCRIPTIONS

COURSE NUMBERS

The course-numbering system indicates the college level at which courses are normally taken.

NUMBERING SYSTEM GUIDE

001-009	precollege course-no credit
010-099	credit granted but not applicable to graduation
100-199	primarily for first-year students
200-299	primarily for second-year students
300499	primarily for upper division students
500-599	graduate courses

At the end of each description, numerals indicate course credits, lecture houses and laboratory hours per week. For example, the designation 3-3-2 identifies a course in which students earn three credits and attend class for three hours of lecture and two-hour laboratory session per week. Courses with variable hours and credits are so indicated.

SEMESTER SCHEDULE

Notation to the right of the course name indicates when the course is offered. If a notation is not included, the course is offered as needed.

CRIMINAL JUSTICE

CRMJ 515 Professional and Research WritingFall/Spring-3

This course provides students with advanced research and writing skills and techniques culminating in the production of a significant research paper. Students will be required to respond in writing to issues in a criminal justice framework. Additionally, the course will focus on the basics of delineating issues, formulating propositions, constructing an argument, and researching a topic. Adherence to skills presented in the American Psychological Association Manual (APA) for preparing manuscripts is required.

CRMJ 520 Criminal Justice Administration and ManagementSpring/Summer-3

This course focuses on the administration and management of criminal justice agencies. Budgeting and long-range planning as well as human resources management are emphasized. The student also will study and analyze the development of various criminal justice agency policies and procedures from a multicultural perspective.

An in-depth examination of the fundamental principles, concepts, and development of criminal law and the constitutional provisions which define it. This includes the study of criminal statutes and laws governing police procedure, as well as the rights of criminal defendants during judicial proceedings and of convicted offenders under the jurisdiction of criminal justice agencies. Issues related to multiculturalism also will be addressed.

CRMJ 525 Theories of CriminologyFall/Spring-3

A critical analysis of the major criminological theories from an interdisciplinary perspective will be provided by this course. The student will study how crime is defined and measured and the impact of this knowledge on major policy decisions. The concept of crime will be studied from sociological, psychological, economic, and political frames of reference.

This course will examine criminal justice concerns from the perspective of political science. The overall course objective will be to learn about how the criminal justice system is created, operates, and is evaluated within a particular

political multicultural framework. Students will be expected to learn how the various parts of this system works in relation to the development of policy.

CRMJ 530 Organizational Behavior in Criminal JusticeFall/Summer-3

This course reviews organizational behavior as it relates to the foundations of individual and group behavior, the role of personality, emotions, motivation and communication, and human resource policies and practices. Research and theories from the behavioral sciences will be examined. Analyses of the following topics are included: leadership, group decision-making, cooperation, competition and inter-group conflict. Prerequisite: CRMJ 520

CRMJ 532 Economics of the Criminal Justice System.....Fall/Summer—3

The focus of this course is for students to develop an understanding of economic principles applied to contemporary issues in the field of criminal justice. Students will examine the effects of fiscal and monetary policies on the state of the economy, on the funding of governmental agencies and the decision-making processes of resource allocation. Students will examine the role of economics as related to the cost of crime and its impact to the criminal justice system. Various theories will be used to study optimum decision-making rules under changing conditions, as well as consumption, distribution of goods and services and pricing. The use of cost-benefit analysis as a tool is emphasized. Each student will have the opportunity to select a specific topic in criminal justice and explore that issue from an economic perspective. Prerequisite: CRMJ 520

This class discusses ethics or the study of goodness and how it relates to such concepts as justice, fairness, and professionalism. The focus will be on understanding ethical systems and how morality develops and analyzing moral and ethical dilemmas.

CRMJ 536 Advanced Research Design & Analysis in Criminal Justice......Spring/Summer-3

This course is designed to introduce the graduate student to the process of social research. It discusses research concepts such as problem identification, data collection, data analysis, hypothesis testing and conclusion and the interrelatedness of these different stages. Prerequisite: CRMJ 515

CRMJ 550 Criminal Justice Administration PracticumFall/Summer-3

The Practicum experience provides students with administrative experience in the field of criminal justice administration. Students gain practical experience, enhance skills learned in the classroom, and acquire contacts with professionals in the field of criminal justice administration. The Practicum requires students to complete a project that results in a final report and presentation at the annual Criminal Justice Administration Graduate Student Symposium. Students will be encouraged to submit proposals to a professional conference to present their projects. Prerequisite: CRMI 536

CRMJ 555 Criminal Justice Administration Thesis......Fall/Summer-3

Students will identify a research question and will develop and write a thesis to further explore and explain the question. The student's advisor and a second reader will grade the thesis. Thesis students will present the result of their research at the annual Criminal Justice Administration Graduate Student Symposium. Prerequisite: CRMJ 536

CRMJ 559 Master's Capstone Seminar in Criminal Justice......Fall/Summer—3

The Capstone Seminar course is an intensive experience in critical analysis, designed to broaden graduate students' perspectives beyond their culture or discipline and provides an opportunity for integration of all previous courses in the Criminal Justice Administration program. The topic or issue for the capstone project will be determined by the Program Director in conjunction with a criminal justice related institution, agency, or organization within the Pittsburgh community. The Capstone Seminar is designed for graduate students to foster cooperation and collaboration among their peers, to develop interdisciplinary partnerships, and to cultivate relationships with community partners. Students will examine a specific issue in the field of criminal justice, will prepare a final written document and present the results of their project at the annual Criminal Justice Administration Graduate Student Symposium. Prerequisite: CRMJ 536

CRMJ 595 Directed Research in Criminal Justice Administration......3

The student works under the guidance of a faculty member and completes a comprehensive research project on a focused topic or issue that is not addressed in other courses offered at the University. The student will prepare a final written document and present the results of his or her project at the annual Criminal Justice Administration Graduate Student Symposium. Prerequisite: CRMJ 536

EDUCATION

Integrating the theories of Multiple Intelligences with learning styles, students will learn a variety of techniques to be able to differentiate instruction to meet the needs of students in secondary classrooms. Students will utilize the Charlotte Danielson Framework for Teaching in order to best design their lessons. They will develop lesson plans and units and participate in field experiences in secondary classrooms, while developing a repertoire of teaching strategies appropriate for the secondary student.

This course will investigate the causes, assessment, and strategies associated with behaviorally challenged students in the secondary classroom. Students will develop strategies to organize and to prevent common behavioral problems associated with the secondary teaching situation. Course topics will include normal and abnormal behavior, behavior management, safe schools, and violence prevention. Students will develop portfolios of preventive strategies and corrective methods, create classroom management plans, and establish techniques to enhance parent-teacher partnerships. Students will participate in classroom observations and field experiences.

EDUC 520 Curriculum & Instruction: Theory, Design & Development3

This course explores the design of curriculum as it relates to contemporary competencies, with application across the educational spectrum. Elements ranging from K-12 content domains and experiential-based education to postmodernism and the inclusion of exceptional learners combine to provide students with a holistic foundation in which to explore curriculum design. Theories of curriculum design and development will provide students with an educational foundation that will serve them in their leadership roles as Curriculum and Instruction specialists. Participants will tailor a curriculum based upon their specific needs, taking into account societal, institutional, instructional and experiential spheres of interests, as well as considering scope and sequencing in their designs.

EDUC 521 Issues in Adult Education3

The course examines a minimum of seven core issues that impact the adults engaged in formal and informal learning experiences. Students will apply core competencies related to adult education and training to their own learning and reflect on the use of these competencies in a variety of settings. As part of the course requirements, students identify specific learning objectives.

EDUC 522 Administration and Supervision in Adult Education......3

The course provides students with background in the principles associated with human performance improvement (HPI), program administration, and applications for various settings and contents. Students apply core competencies related in adult education and training to their own learning and reflect on the use of these competencies in a variety of settings.

EDUC 523 Instructional Methods for Adult Learners......3

This course provides a theoretical overview of the principles of adult learning. The course provides students with a strong foundation in andragogical process, assumptions and applications for various settings and contents. Students apply core competencies related to adult education and training to their own learning and reflect on the use of these competencies in a variety of settings. Students develop skills in the design and implementation of instructional design characteristics appropriate for non-traditional, post-secondary, and higher education settings.

EDUC 524 Content Area Design and Instruction3

This course provides opportunities for application of curriculum development and instructional methods across

the educational spectrum (K-12). Current trends, philosophies, and practices are coupled with subject matter to provide participants with a practical and contemporary foundation from which to instruct. Students will explore effective delivery of instructional methodologies and strategies that address diverse populations of students. Students will learn how to conduct experimental instructional programs during the course, as they design and develop innovative curricula. Students will develop models in their chosen field that can be implemented independently or adapted to an existing curriculum.

EDUC 525 Human Development and Classroom Behavior......3

This course will investigate the causes, assessment, and strategies associated with behaviorally-challenged students. In order for students to fully appreciate the context of education for behaviorally-challenged students, theories and "best practices" based on normal development, as well as different levels of cognitive functioning, will be considered first. Course topics will include normal and abnormal development (psychological theories, cognitive theories, etc.); etiological perspectives; behavior management and team approaches to intervention methods; safe schools and violence prevention. Graduate students will design a portfolio of preventive strategies and corrective methods, examine their contribution to classroom climate, and establish techniques to enhance parent-teacher partnerships. (Prerequisite: EDUC 530)

EDUC 526 Program Management3

Students will develop skill in the assessment of program needs, development of a program and administrative budget, and the preparation and presentation of grant proposals and marketing strategies.

Integrating the theories of Multiple Intelligences with learning styles, differentiated instruction supplies teachers with pragmatic techniques to use in the classroom to complement curriculum when working with a variety of student abilities. Students will develop instruments to determine talents and learning styles, design effective multi-delivery systems, and plan projects that empower learners by capitalizing on their strengths.

EDUC 531 Emerging Teacher Leadership......3

The course will focus on the role of the teacher as an emerging leader within the culture of the school. While effective instruction is the most important component of high achieving schools, another determining factor is the extent to which teachers are prepared to engage with administrators in shared leadership. This course will examine the literature related to teacher leadership as well as provide opportunities to put this research into practice. Students will have the opportunity to develop a reform initiative that could be implemented within their schools.

EDUC 532 Twenty-First Century Schools......3

This course will focus on contemporary challenges and opportunities related to schools of the twenty-first century. Students will explore and analyze the impact of diminishing financial resources, increased federal and state regulations, demands of community stake holders, impact of media and technology, struggling urban community environments, and a greater number of diverse, at risk, low income, and special needs students. Students will identify and evaluate new paradigm models used to improve classroom teaching. Students will apply their understanding of twenty-first century schools to create new learning environments that result in increased student achievement, a more caring and welcoming learning environment, and a more professional work place for the teacher.

This course explores a wide range of activities and instructional methods that incorporate various technologies. Fundamental concepts and designs, as well as techniques and tools, will provide the foundation for the participants to systematically analyze their classroom needs and activities. Graduate students will develop instructional designs which implement user-friendly technology applications and computer-assisted instruction. (Prerequisite: EDUC 524)

EDUC 536 Research Methods......3

This course provides students with a comprehensive overview of the process of planning, implementing, and evaluating quantitative and qualitative educational research. A seven-stage model of the research process will serve as the conceptual framework. Through classroom lectures and independent readings, students will be provided with an

in-depth analysis of how to analyze and interpret quantitative and qualitative data, elements of research design, how to write and interpret research reports and methods of presenting research findings. An equal emphasis will be placed on understanding educational research through the process of factually conducting a cooperative research study in applied setting.

EDUC 537 Advanced Research Seminar3

This course will build on the skills and techniques learned in the research methods course, EDUC 536. The research proposal that was developed in EDUC 536 will be expanded and refined. The majority of course time will be devoted to conducting the research that was previously proposed. As students conduct their research, they will meet periodically for sharing, peer review, and joint analysis of the research process in action. Students will produce and present their research findings at the conclusion of the course. (Prerequisite: EDUC 536)

EDUC 538 Educational Administration......3

This course provides the supervisor in training with a foundation of the educational theories and research that affect day-to-day administration of schools. Topics will include theories of organization, educational foundations, and structures, supervision of personnel, collaboration and team-building, interdisciplinary curriculum design, effective job analysis procedures and staff performance appraisals, and technology issues. This course is designed to examine and analyze the means for managing institutional resources in educational settings, with an emphasis on human, fiscal, and physical resources. There is a focus on Pennsylvania school budgeting procedures as the course considers the development of practical skills in resource management in school finance and school plant operations. Issues of management include school facilities and their effective utilization, the incorporation of diverse instructional methodologies, as well as the consideration of class scheduling alternatives.

This course identifies and analyzes the impact diversity has upon students in the classroom today. By collaborating with individuals from various cultural and ethnic groups, religious backgrounds, and social classes, students will investigate the relationship that exists between school systems and their diverse populations. Developing lessons and projects that optimize talent, pride, and participation will constitute the focus of coursework. (Prerequisite: EDUC 530)

This course will provide a comprehensive analysis of legal procedures, considerations, and concepts as they apply to education. Subject matter includes current state and federal laws effecting education, their impact on teachers, and knowledge of agencies that effect policymaking and legal responsibilities of educators. Students will write relevant case scenarios for a presentation designed to illustrate responsibilities and requirements for their district. (Prerequisite: EDUC 538)

EDUC 545 The Principalship3

This course is designed to present an overview of the principal's role in relation to leadership, supervision, organizational management, and community interaction. Topics include transactional and transformational leadership, systems theory and standards aligned systems, learning communities, decision-making, strategic and continuous school improvement planning, change theory, school culture and climate, data and technology, personnel, scheduling, budgeting, building management, and communications with constituent groups. Through scenarios and case studies, participants will consider and discuss issues faced by school principals. Course activities will enable students to internalize the PA Leadership Core and Corollary Standards and adopt strategies and practices reflective of them.

EDUC 546 Curriculum Supervision and Leadership......3

This course is designed to foster professional growth in supervision and leadership. Curriculum Supervision and Leadership supports district-wide curriculum specialists and other educators in their endeavors to contribute to the field of teaching and learning. Students will be introduced to models of supervision, including theory, design, and techniques, as they learn how to supervise instruction and personnel, evaluate staff, identify staff development needs

and resources, manage staff conflict, and organize, facilitate and evaluate professional development programs. Students will develop collaborative collegiality, i.e., those supervisory skills that accommodate all stakeholders in a school system (e.g., teachers, administrators, parents, the community at large), including clinical and developmental expertise, observation and conferencing competence, peer coaching, and interdisciplinary teaming aptitude. Students will learn to identify potential venues, write competent communications, and perform effectively with audiences of parents, school administrators, school boards, advisory committees, or the community-at-large. (Prerequisites: EDUC 520 & EDUC 524)

This course is designed to present an overview of the principal's role in creating an organizational vision and cultivating a positive school climate. This course will introduce decision-making models and will emphasize data driven decision-making. Curriculum administration concerns including instructional methods, learning theory and motivation, and special education and student services will also be covered. Finally, the human resource issues of personnel evaluation and professional development will be examined. Through scenarios and case studies the participants will read, consider, and discuss issues faced by school principals. Written and oral exercises will enable the students to internalize ISLLC Standards 1, 2, and 5 and adopt strategies reflective of them.

EDUC 548 Principalship II: Organizational Management and Community Interaction.........3

This course is designed to acquaint the student with organizational management and community interaction. Topics include staffing issues, the deployment of personnel, scheduling, technology applications, relations between the school and the community, and the legal rights and responsibilities of the staff and students. Heavy emphasis will be placed on budgeting and financial planning including: Incremental Budgeting, Zero-Based Budgeting, and the Planning, Programming, Budgeting System (PPBS). The course will culminate with the students creating a budgeting plan. Accounting, supplies/equipment management, care of the school plant, and working with classified personnel will also be examined. Through scenarios and case studies, the participants will read, consider, and discuss issues faced by school principals. Written and oral exercises will enable the students to internalize ISLLC Standards 3,4, and 6 and adopt strategies reflective of them.

EDUC 549 Applied Research Practicum in School Administration - School Principal K-12.......3

This field-based practicum is designed to give the prospective school principal experience under the guidance of a practicing school administrator or supervisor. The practicum requires the completion of 180 hours in diverse K-12 environments (over two terms). The practicum should cover a broad range of administrative responsibilities including, but not limited to: leadership, the role of principal as an instructional leader, experiences with school organization and structures within a social and political environment, legal issues and responsibilities, the fiscal operation of the school, the role of the principal in building community relations, and professional development. Collaboration with administrators, including the principal and vice-principal, is considered vital and necessary for the student's professional development during the practicum experience. The on-site supervisor will assist the student by providing opportunities that coincide with the student's identified objectives and goals. A daily log and a certification project will be completed during the practicum. (Prerequisites: EDUC 520, EDUC 524, EDUC 530, and EDUC 536 Research Methods or some other graduate level research course)

EDUC 550 Applied Research Practicum in School Administration - School Principal K-12.......3

A continuation of EDUC 549. This field-based practicum is designed to give the prospective school principal experience under the guidance of a practicing school administrator or supervisor. The practicum requires the completion of 180 hours in diverse K-12 environments (over two terms). The practicum should cover a broad range of administrative responsibilities including, but not limited to: leadership, the role of principal as an instructional leader, experiences with school organization and structures within a social and political environment, legal issues and responsibilities, the fiscal operation of the school, the role of the principal in building community relations, and professional development. Collaboration with administrators, including the principal and vice-principal, is considered vital and necessary for the student's professional development during the practicum experience. The on-site supervisor will assist the student by providing opportunities that coincide with the student's identified objectives and goals. A daily log and a certification project will be completed during the practicum. (Prerequisites: EDUC 520, EDUC 524, EDUC 530, and EDUC 536 Research Methods or some other graduate level research course)

This field-based practicum/seminar is designed to give the prospective teachers experience under the guidance of a practicing teacher appropriate to their area of certification. Combines microteaching and teaching experiences to provide for an application of methodologies through interaction with diverse populations of students. Classroom management, special needs students, and daily teaching strategies will be emphasized.

EDUC 554 Practicum/Seminar in Learning Organizations I......3

This seminar course will provide students with a broad overview of the wide range of adult educational settings. Students will visit, report, and reflect on various educational settings in preparation for their Practicum II experience (EDUC 555). Guest speakers will provide additional perspectives through classroom presentations and discussions. A variety of career exploration activities will be included as part of the course requirements. Students will develop short-and long-term career goals and effective strategies for achievement. In-depth research and reflective logs will be emphasized.

EDUC 555 Applied Research Practicum in Adult Education and Training3

This field-based practicum is designed to give the prospective adult education specialist experience within a setting designed to foster professional development under the supervision of a mentor. Particular emphasis will be placed on learning how to conduct and evaluate experimental instructional programs in light of relevant basic or applied research fundamentals. The initiative rests with the student in designing a substantial part of the practicum experience. The on-site supervisor will assist the student by providing opportunities that coincide with the student's identified objectives and goals. A daily log and an original research project will be completed during the practicum. (Prerequisite: EDUC 536)

EDUC 556 Applied Research Practicum in Curriculum and Instruction I......3

This field-based practicum is designed to give the prospective supervisor experience with a practicing school administrator or supervisor. The practicum requires the completion of 180 hours in the participant's area of certification (over two terms). The candidate and his/her advisor will identify areas of focus for the practicum, which must include curriculum development, budgeting, supervision and evaluation of personnel, policy and program development, communication and any additional areas identified by the student with the advisor. Collaboration with administrators, including the principal, vice-principal, and curriculum and instruction supervisor is considered vital and necessary for the student's professional development during the practicum experience. The initiative rests with the student in designing a substantial part of the practicum experience. The on-site supervisor will assist the student by providing opportunities that coincide with the student's identified objectives and goals. A daily log and a certification project will be completed during the practicum.

A continuation of EDUC 556. This field-based practicum is designed to give the prospective supervisor experience with a practicing school administrator or supervisor. The practicum requires the completion of 180 hours in the participant's area of certification (over two terms). The candidate and his/her advisor will identify areas of focus for the practicum, which must include curriculum development, budgeting, supervision and evaluation of personnel, policy and program development, communication and any additional areas identified by the student with the advisor. Collaboration with administrators, including the principal, vice-principal, and curriculum and instruction supervisor is considered vital and necessary for the student's professional development during the practicum experience. The initiative rests with the student in designing a substantial part of the practicum experience. The on-site supervisor will assist the student by providing opportunities that coincide with the student's identified objectives and goals. A daily log and a certification project will be completed during the practicum.

EDUC 558 Guided Study in K-12 Education......3

This course is designed to give students the opportunity to focus their research on school reform efforts for a particular level of the educational continuum. Through selected readings, literature review, hands-on projects, and peer review, the student will examine multiple facets of their area of study. Students will be able to describe the developmental needs of that age group, the characteristics of the school that best meets those needs, and current

reform efforts related to that population. Students will present a seminar on school reform efforts as a final class project. (Prerequisite: EDUC 536)

EDUC 560 Differentiated Teaching......3

This course will explore the range of human behavior commencing with characteristics of typical behavior to that of the behaviorally challenged. Course topics will include: normal and abnormal human development, IDEIA Reauthorization, federal and PDE regulations, IEP development and functional behavioral assessment, state assessment policies, alternative education services for disruptive youth, etc.

EDUC 561 The Reflective Practitioner......3

This course provides practicing educators with the opportunity to develop their ability to become reflective practitioners who practice the continuous improvement of instruction in the classroom. This course will provide students with an in-depth look at the four domains of teaching and learning practices, as defined in Charlotte Danielson's Framework for Teaching model. The course analyzes experiences in each of the domains and components of the Framework, including planning, preparation, and assessment; classroom environment; instruction; and professional responsibility. Students examine relevant research-based practice appropriate to each domain area.

EDUC 565 Second Language Acquisition and Linguistics......3

Educators participating in this course will develop knowledge and skills in the structure of the English language, grammar and pronunciation including lexical, morphological, phonological and pragmatic components. The course will then delve into specific issues related to English Language Learners related to BICS and CALP, L1 and L2 acquisition, myths concerning second language acquisition, affective filters and speech/discourse patterns. The course will then use the theories provided to the educators to show their relationship to the ESL students' reading, vocabulary and writing development.

EDUC 566 Methods for Teaching English Language Learners......3

Educators participating in this course will develop methods, strategies and resources that address the educational needs of ELLs in their learning process. Topics of instruction and application will include adapting and modifying instruction based on language proficiency, research-based instructional practices, review and evaluation of materials for English Language Learners and the use of instructional technology. Educators will develop lesson plans using levels of English proficiency and conduct action research with ESL teaching methods with ESL/non-ESL students in their classrooms.

Educators participating in this course will develop an understanding of the supports and instructional strategies that should be in place in order to assist the English Language Learner acquire content area knowledge while moving through the stages of language acquisition. A thorough understanding of the importance of scaffolding of instruction, the SIOP model, Content-Based Literacy Instruction and native language support will be offered for teachers who work with ELLs in general education classrooms.

This course is designed to expand the participants' knowledge of effective assessment practices and support services available for ELL students. In addition to effective assessment practices; purposes for assessment, multiple assessment models, use of evaluation techniques, scaffolding of assessments and formal/informal assessment tools will be discussed. Participants will learn the availability of school support services to assist ELLs in language acquisition and content learning and ways to promote parental/family involvement with their children's educational program. Participants will gain hands-on experience in test administration, interpretation and reporting. Individualized Education Plans for ELLs identified as special needs students will also be discussed.

EDUC 595/596/597 Special Topics

(Prerequisites: EDUC 520, EDUC 524, and EDUC 530)

Innovative techniques for an interdisciplinary approach to the teaching of the social sciences. Special attention is given to cultural and ethnic diversity. Presentation through traditional materials and experimental multi-learning resources is examined. Graduate students are expected to demonstrate additional competencies in action research and translating instructional theory to practice.

Study of appropriate content and techniques for teaching school mathematics consistent with the recommendations of professional societies. Consideration of the diagnostic, prescriptive and evaluative processes of teaching, classroom management and curricular organization. Field experience required. Graduate students are expected to demonstrate additional competencies in action research and translating instructional theory to practice.

EDUC 610 Methods of Teaching Science & Health3

Methods and current strategies in teaching science and health. Students will demonstrate their ability to prepare, select and use materials and instructional approaches appropriate to various student needs. Unit plans, demonstrations and field placement activities required. Graduate students are expected to demonstrate additional competencies in action research and translating instructional theory to practice.

EDUC 616 Developmental Reading......3

Develops competencies necessary for the teaching of reading (readiness through grade six). Methods and techniques for teaching a variety of approaches to reading. Practical application of theories and methodologies. Field experiences are included. Graduate students are expected to demonstrate additional competencies in action research and translating instructional theory to practice.

EDUC 625 Student Teaching Practicum......6

Each student will be placed at an appropriate certification site – early childhood, elementary, or secondary school – for a 14-week student teaching semester. Prerequisites: Successful completion of all competencies, course work and field experiences; 3.00 GPA overall; Act 34 and 151 clearances. Successful completion of required PRAXIS exams.

Consideration of the sociological, historical and philosophical foundations of education in America. Examines the various instructional processes and their underlying bases leading to better judgments about the role of the school in modern society. Graduate students are expected to demonstrate additional competencies in action research and translating instructional theory to practice.

EDUC 628 Educational Psychology......3

Emphasis on the direct application of learning theory to classroom educational practice. Students will study human development and psychological influences which impact the teaching/learning process. The course will explore classroom management, discipline, assessment, and developmentally appropriate instructional strategies. Students will begin to develop lesson plans using the principles of learning and developmental theory. Observational field experiences are required. Graduate students are expected to demonstrate additional competencies in action research and translating instructional theory to practice.

EDUC 632 Selected Case Studies in Special Education......3

This course will focus on the development of two case studies of children with disabilities selected from the caseload of a special education classroom teacher or teachers. Students will participate in a minimum of ninety (90) hours of documented field work for successful completion of this course. Students will identify and select a child with a high incidence disability and a child with a low incidence disability for intensive study. The student will analyze and examine in detail each child's current special education program and services in order to determine if there is an appropriate provision of high quality, standards-based instruction that meets the individual child's academic, communicative and social/emotional/behavioral needs. In addition, each student will be able to assess and critique

specific universal design concepts as well as quality differentiated instructional practices related to each child's current educational needs. Likewise, students will be able to analyze the evaluate the appropriateness of both the formal and informal assessment strategies embedded in the Individualized Education Program (IEP) plans including progress monitoring and adapted grading strategies. At the conclusion of these various data analyses, the student will take a position supporting or challenging each child's current recommended special education program and placement related to the mandate of the least restrictive environment.

ENGINEERING MANAGEMENT

MSEM 500 Management of Engineering, Scientific and Technical Professionals......Fall-3

The course will cover the management of human resources in a technology-based enterprise with engineering, scientific and technological professionals. The course also will concentrate on the development of personnel policies regarding training, employee-labor relations with technical staff and administrative personnel. Students will apply coursework via interaction with human resource professionals and research assignments.

MSEM 505 Economic Analysis in Engineering ManagementFall—3

The course covers the principles and methodologies of economic analysis and selection of projects as they pertain to engineering activities. Individual, corporate and public projects will be considered. Among topics covered are time value of money, short term and long term investment analysis, management of assets, inflation, and taxation analysis. Basic concepts such as stochastic analysis and deterministic methods will be introduced. Students will be able to utilize financial principles including: accounting income and cash flow, equivalence, cash flow modeling, depreciation, taxation, investment worth, selection of alternatives, and budgeting models. Students also will have special appreciation for comparisons of project viability and risk for selection of projects including investment worth under risk, comparing projects, and decision trees.

MSEM 510 Organizational BehaviorSpring-3

The determinants of individual and group behavior within the engineering organization are discussed. Motivation, leadership, group behavior, organizational structures and processes as they affect performance and satisfaction in the organization will be covered. Students will obtain practical knowledge of organizational behavior via reading, research projects and interactions with engineering and business professionals.

MSEM 520 Contract Law and the Engineering Enterprise.....Spring—3

Introduction to the legal factors affecting contractor activities; contract responsibilities of contractors, engineers and owners; subcontracts and third party liability; legal as well as ethical issues facing engineering managers; federal and state regulations relating to contracts.

The course will include extensive coverage of project management related to staffing, planning and budgeting engineering projects. Course content will include client satisfaction, cost control and development of the project team, along with the engineering manager's role in motivation, performance reviews and negotiations. The effects of deregulation will be discussed. Students will apply practical knowledge of how to plan and execute a successful engineering project.

The course provides an introduction to deterministic operations research models and solutions techniques. Specific topics covered include: linear programming formulation, graphical solution, simplex method introduction, special applications of the simplex method introduction to duality, the transportation and assignment problems, network flow problems, integer and dynamic programming. Design projects will involve spreadsheet software, spreadsheet ad-ins, LINDO and other special purpose packages. Students will become familiar with deterministic math models.

MSEM 540 Seminar in Contemporary Issues in Engineering Management......Summer—3

Students will interact with visiting experts, fellow students and faculty in open discussions relating to a diverse range of topics including human resource management, legal issues, strategic planning and financial management. Field activities will reinforce classroom experience. Students will become familiar with topical issues confronting engineers and managers.

MSEM 545 Project in Engineering ManagementSpring-3

Students will apply classroom learning in the execution of a project of substantial magnitude. Together with faculty, the student will select a topic that focuses on an application in one of the eight course areas, or one that is more broadly based. Faculty will evaluate a detailed student report. Students will achieve significant expertise in engineering projects, learn to work independently in applying previously learned concepts to specific problem, demonstrate appropriate written and oral communication skills and demonstrate the ability to select and utilize appropriate computing tools.

ENVIRONMENTAL STUDIES

An overview of the scientific principles applicable to natural resources and environmental issues. Subjects include biogeochemical cycles, air-water-land linkages, acid mine drainage, and non-point pollution, atmospheric pollution, climate change, wetlands, brownfields and the urban environment. MSES 500 is a pre-requisite or co-requisite for all other classes.

MSES 505 Environmental Science IIFall—3

A continuation of Environmental Science I

MSES 510 Economics and the EnvironmentFall—3

Students will examine the fundamentals of economics with respect to natural resources development and sustainability, energy needs and pollution control. Methods employed will include social welfare analysis, cost-benefit analysis and externalities.

MSES 515 Politics (Government) and the EnvironmentFall—3

Examines the role of local, federal and global institutions in solving environmental problems such as atmospheric pollution, global warming, biodiversity, deforestation and overpopulation.

MSES 520 Exploring the Environment and Health ConnectionSpring-3

An introduction to environmental health concepts. Examines historical and current events to illustrate and better appreciate the relationships between environment and health. The course will review the relationship of people to their environment, how the environment affects their physical well-being and what can be done to influence the quality of the environment and enhance the protection of health. Major environmental health problems discussed include: new and emerging infectious disease of public health importance, air quality, water quality, waste water and soil and hazardous waste management.

MSES 530 Environmental Ethics......Spring-3

An overview of ethical theories such as utilitarian versus Deontological; instrumental versus intrinsic value; anthropocentric versus nonanthropocentric, biocentric vs. ecocentric as they apply to various environmental concerns. Selected topics such as global ethics, and the atmosphere (commons), land ethic, animal rights and deep ecology will be discussed.

MSES 540 Environmental Law......Spring-3

A study of the impact of legal issues and regulating agencies on environmental protection. Local and federal statutes, such as Clean Air Act, Clean Water Act, National Environmental Policy Act and waste management laws will be discussed.

MSES 550 Environmental Communication......Spring-3

This course is an overview of professional communications with an emphasis on communications challenges encountered in environmental situations. Students will gain an understanding of direct and media communications with an emphasis on dialogue and research. Management planning and communications techniques will be explored as they apply to environmental case situations.

MSES 560 Project in Environmental Studies I......Summer—3

Students will apply classroom learning to select, together with a faculty member, a topic to investigate that focuses on one of the eight course areas or one that is more broadly based. The student will conduct a comprehensive literature search identifying major, contemporary issues relating to the chosen topic. The student will then prepare a detailed written report documenting the scope and magnitude of the literature reviewed.

MSES 570 Project in Environmental Studies IISummer-3

Students will, together with a faculty member, select an aspect of the literature search conducted in MSEM 560 for execution of a project of substantial magnitude. The student will achieve a significant level of expertise in the project, learn how to work independently in applying previously learned concepts to specific problems, demonstrate appropriate written and oral communication skills and demonstrate the ability to select and utilize appropriate analytical tools.

SPECIAL EDUCATION

This introduction to Assistive and Instructional Technologies will explore the use of a wide range of technology tools that can be utilized to meet the academic and communicative needs of students with special needs and abilities. Students will discuss the legislative, educational, and ethical foundations upon which assistive technology integration are grounded. Students will utilize the SETT framework and feature-match principles to identify, apply, and assess instructional and assistive technology tools for use by individual students as well as larger learner groups. Finally, students will complete a detailed research paper focused on one particular piece of assistive technology currently utilized by students who have disabilities and present the findings in class. The in-class presentation should include a mini demonstration of the use of this technology and how this technology can support classroom instruction.

This introductory course will provide the student with an overview of the field of special education with emphasis on the evolution of special education and the legal basis for the current types of programs and services delivered to students with disabilities. Students will learn about the various categories of disabilities and the impact of these on the educational programs of special needs students. Students will examine instructional and behavioral strategies that promote positive learning experiences for students with disabilities. Observations of students with disabilities in a variety of educational settings and service delivery models will be required. Interaction will take place with special education professionals who are currently working with and delivering services to students with disabilities in various school settings. An additional student requirement of this course will include an in-depth report and class presentation on a disability area of research interest to the student. Parameters and details of this project will be discussed and agreed upon between instructor and student during the first two weeks of class. Prerequisite: Current clearances as required by PDE

SPED 534 Differentiated Instructional Practices in the Inclusive Classroom ...3

This course will provide information on how educators can differentiate instruction to meet the needs of their students with disabilities in the regular classroom setting. Included in this course will be a review of the components of differentiated instruction and how these components can be implemented in the regular education setting. Students will learn how to assess the learning styles and needs of their students as they acquire skills to manage a classroom where a variety of instructional strategies are used. Data-based and data-driven decision making as it relates to the teaching of academics will be included. While observing lessons in specific content areas, students will analyze instructional practices observed to determine which will be the most effective for students with disabilities. Students will be required to demonstrate the strategies presented in class and apply these strategies in demonstration lessons in their areas of teacher certification. Finally, students will complete an in-depth research paper on a specific component

of differentiated instruction (learning strategies, adapted grading procedures, etc.) and present the findings of this research paper to the class.

Information and practical training in the implementation of basic classroom management theories and strategies for all students, especially those with high incidence disabilities will be the focus of this course. Students will learn about mandates and current legislation affecting the management of all student behavior in schools. The Positive Behavioral Interventions and Support (PBIS) model will be studied in depth. Data-based and data-driven decision making will be emphasized. Students will also learn and practice strategies for addressing and improving school survival skills, social skills, and specific student behavior problems. Students will understand, develop and practice culturally responsive behavior strategies that promote effective communication and collaboration with students with disabilities and their families. Observations in the schools will be required. Finally, each student will develop an indepth individualized Positive Behavioral Intervention and Support plan for a selected student who has been observed and studied during school observations. Prerequisite: SPED 533 Special Education Inclusive Practices

SPED 536 Evidence Based Effective Instruction: High Incidence Disabilities...3

This course will provide an overview of how to teach students with high incidence disabilities. Included in this course will be a review of students who are identified as having a learning disability, a mild intellectual disability or an emotional disturbance. The definition, causes, and characteristics of each disability will be presented in order for the students to develop a thorough understanding of each disability category. In addition, the programs and services that are available for students with high incidence disabilities will be discussed in terms of the range of options and their effectiveness in meeting the needs of these students. Emphasis will be on the best teaching practices to use with students with high incidence disabilities and the accommodations that may be necessary in order for them to learn. The importance of building family partnerships and understanding the impact this can have on a student's progress will be discussed. Consideration will be given to the role that collaboration and communication plays in the Individual Education Program (IEP) plan and the ability to successfully program for students with high incidence disabilities. Finally, students will choose a high incidence disability and complete an in-depth research paper with a focus on the characteristics of this disability as well as the instructional and behavioral strategies and effective instructional practices necessary to support the learning and achievement of these students in the regular education classroom environment. The results of this research paper will be presented to the class prior to the end of the term.

SPED 537 Evidence Based Effective Instruction: Low Incidence Disabilities....3

This course will provide an introduction to children with physical, multiple, health and sensory disabilities and their educational implications. The material will emphasize the importance of school personnel needing to understand the student's disability in order to meet his or her unique needs and to provide an appropriate education. The students will also learn the importance of a team in order to support a student with complex disabilities as they progress through the educational system. Students with physical, health and multiple disabilities have needs that require many different types of professional expertise in order to receive an appropriate education. The students will exam the importance of team approaches as they relate to the education of these students. Some of the disabilities covered in this course are: cerebral palsy, traumatic brain injury and spinal cord injury, spina bifida, osteogenesis imperfecta, juvenile rheumatoid arthritis, vision loss, hearing loss, muscular dystrophy, cystic fibrosis. Treatments for the conditions will also be covered. It is important for educators to understand the different conditions and the treatments so that they are better able to work with other specialist involved with their students. The course will also introduce students to the role that families play in the education of their child. The students will also have the opportunities to observe students in classrooms and in other therapeutic settings on site and through DVDs. In addition, students will interact with professionals who are currently working with children in schools and therapeutic settings. Finally, the student will choose a low incidence disability and complete a research paper with a focus on the characteristics of this disability as well as the instructional and behavioral strategies and effective instructional practices necessary to support the learning and achievement of these students in both the regular education classroom and in the delivery of pull-out services when appropriate. The results of this research paper will be presented to the class prior to the end of the term.

SPED 538 Secondary Transition Processes and Procedures (Grades 7-12)......3

This course will provide an introduction to children with physical, multiple, health and sensory disabilities and their educational implications. The material will emphasize the importance of school personnel needing to understand the student's disability in order to meet his or her unique needs and to provide an appropriate education. The students will also learn the importance of a team in order to support a student with complex disabilities as they progress through the educational system. Students with physical, health and multiple disabilities have needs that require many different types of professional expertise in order to receive an appropriate education. The students will exam the importance of team approaches as they relate to the education of these students. Some of the disabilities covered in this course are: cerebral palsy, traumatic brain injury and spinal cord injury, spina bifida, osteogenesis imperfecta, juvenile rheumatoid arthritis, vision loss, hearing loss, muscular dystrophy, cystic fibrosis. Treatments for the conditions will also be covered. It is important for educators to understand the different conditions and the treatments so that they are better able to work with other specialist involved with their students. The course will also introduce students to the role that families play in the education of their child. The students will also have the opportunities to observe students in classrooms and in other therapeutic settings on site and through DVDs. In addition, students will interact with professionals who are currently working with children in schools and therapeutic settings. Finally, the student will choose a low incidence disability and complete a research paper with a focus on the characteristics of this disability as well as the instructional and behavioral strategies and effective instructional practices necessary to support the learning and achievement of these students in both the regular education classroom and in the delivery of pull-out services when appropriate. The results of this research paper will be presented to the class prior to the end of the term.

This course will provide an introduction to children with Autism Spectrum Disorder (ASD). The material will include current research on causes, characteristics, assessment and treatment of this disorder. The students will receive an overview of the information necessary for teachers to be adequately informed if they have a child in their class with ASD. Students will also learn the importance of collaborating with other team members in order to support students with ASD as children progress through the educational system. Areas covered include assessment, evidence based practices, applied behavioral analysis, and the importance of social skills and communication learning. Students will be introduced to the role that families play in the advocacy for their child from their input at an IEP meeting to developing support groups for other families. The students will also have the opportunities to observe children with ASD in the classrooms and in other therapeutic settings on site and through DVDs. Students will interact with professionals who are currently working with children with ASD in school and in therapeutic/community settings. Finally, as a part of the student observations in classrooms and other therapeutic settings, the graduate student will complete an in depth case study of one student diagnosed on the autism spectrum focusing on the effective instructional practices, behavioral and communication supports and assistive technology as identified in the child's Individualized Education Program (IEP) plan.

SPED 541 Professional Collaboration and Communication3

This course is designed for the special education teacher candidate. It is designed to help classroom teachers acquire conceptual and skill-based competencies in the area of collaborative consultation in educational teams. Additionally, the course will focus on those skills necessary for interactions with other professionals and parents. Students will examine and apply consultation as an interactive process among team members from various disciplines and expertise, with the goal of creating joint team decisions for learners with diverse needs. Emphasis will be placed on interactive problem solving, collaborative learning, and resource sharing among team members. Finally, the student will identify one component of the professional collaboration and consultation model and complete an in depth research paper focusing on effective practices in the field. The results of this research paper will be presented during an in-class discussion session.

This course will provide information regarding effective instructional practices including strategies and interventions in the area of reading, writing and mathematics for the special education teacher delivering instruction to students with disabilities. Emphasis in the course will include a history of instructional practices and delivery of intensive instruction in reading and mathematics and the effects on achievement for students with disabilities. In addition, candidates will explore current research based practices and a variety of service delivery models identified as "best practice" with options available for intensive intervention programs and strategies for students with identified disabilities. Candidates will become familiar with PA State Standards, Anchors and Eligible Content in reading and mathematics and the alignment of instructional practices to promote achievement opportunities for all learners. Class participants will experience a variety of "hands on" experiences involving "best practice" programs and strategies. Students will be provided with opportunities to interact with professionals who are currently working in educational settings and utilizing intensive instructional practices in reading and mathematics for students receiving special education services. Finally, the graduate student will choose an intensive reading, writing or mathematics intervention and research the intervention in detail by completing a research paper on this topic. In addition, the student will present the results of her/his research to the class and provide a demonstration lesson to the class as to how this intervention might be implemented.

This field-based practicum/seminar is designed to give the prospective special education teacher experiences under the guidance of a practicing special education teacher. This practicum will combine microteaching strategies and inclusive teaching experiences in order to expose the graduate student to a diverse population of students with disabilities. Emphasis will be placed on understanding how the specific needs of individual students will drive the instructional practices in the classroom. Emphasis will be placed on learning effective classroom management strategies, differentiated instructional practices and managing the plethora of compliance documentation related to special education programs and services. A daily log and a culminating project will be completed during the practicum.