

MASTER OF SCIENCE- INTERDISCIPLINARY STUDIES

The graduate Interdisciplinary Studies (IS) degree is a multi-disciplinary, advanced program of study that provides the student with a broad perspective and foundational knowledge in more than one subject. Sometimes a focused graduate program is not sufficient to meet a student's unique career goal or a student simply has multiple interests; this program can be "customized" with a main anchor area and two supplemental disciplines. With this program students will develop an awareness of the perspectives and philosophies of various interest groups and contexts, and be encouraged to take a multi-disciplinary approach to problem-solving and workplace innovation. Students take an introductory course, IS 501 Interdisciplinary Studies Seminar (1 SCH), to devise a personal program of study, and learn the conceptual foundations of interdisciplinary study at the graduate level. The interrelatedness of the disciplines is important as students make decisions in degree planning and course selection. The alternative graduate teacher certification program can also be infused within the MSIS degree for those who desire both state certification and a graduate degree.

In IS 501 the MSIS student is encouraged to create a strong intellectual, yet coherent holistic program that meets individual career goals. Independent thinking and the ability to plan is very important in this program as specific courses will not be prescribed on the degree plan initially. The student takes "ownership" of the plan and in marketing this degree following graduation. Although an interdisciplinary program can be powerful in terms of career development, the student is encouraged to work with the Career Development center on resume development, interviewing skills, and career prospects that target graduates of multi-disciplinary programs.

Admission Requirements

- Baccalaureate degree from an accredited institution
- Minimum of cumulative 2.80 GPA or 2.80 GPA in last 60 hours of undergraduate degree program
- Passing score on TEXES exam for those pursuing the teacher certification path
- Three letters of academic recommendation
- Approved Writing sample conducted in campus Testing Center
- Letter of interest with statement of goals (an introspective essay typically one to two pages in length specifying what the student expects to achieve by earning an interdisciplinary degree, why this type of degree may be suitable, and what disciplines the student is interested in)
- Resume

Admission Requirements must be submitted to the Graduate Studies Office by the designated deadline of first semester of enrollment. Be aware that initial admission to the university does not guarantee full admission to a graduate degree program.

Career Prospects with this degree:

- Entry level management or supervisory positions
- A variety of roles with social or community agencies
- Public School Teaching positions for those with a baccalaureate degree in a content subject and state certification
- Public Educator credentials for dual credit or AP courses at the secondary level - 18 SCH of graduate coursework can be obtained in a discipline with this degree, with complementary coursework in Education for professional development
- General Upward mobility for those in established fields of practice
- Sales and Marketing roles
- Public Relations positions
- Entrepreneurial goals
- Community College Staff roles
- Human Resources

What Students Gain from this Program

Regardless of which disciplines a student chooses, a graduate of the program will be equipped with:

1. A broad, interdisciplinary perspective of knowledge and the capacity to apply integrated knowledge to problem-solving, inquiry and innovation.
2. Analytical skills that cross disciplinary boundaries.
3. Sensitivity to perspectives of various interest groups and contexts, such as social, political, cultural and economic.
4. Research and technical writing skills.

Options for Anchor Discipline (courses must be 500 level or higher)

- English
- Biology

- History
- Communication
- Educational Administration
- Adult and Higher Education
- Mathematics
- Mathematics Education
- Instructional Technology
- Special Education
- Education
- Reading
- A discipline transferred from an accredited institution (max. of 12 SCH may be transferred) - Disciplines not offered at the A&M-Texarkana campus can be obtained through the cross-enrollment program with A&M-Commerce. Examples: Criminal Justice, Public Administration, Sociology, Chemistry, etc.
- NOTE: Psychology, Counseling and Business cannot be used as the main anchor discipline but can be selected as supplemental, although restricted selection of courses applies.

Degree Requirements

Students should refer to their DegreeWorks degree audit in their Web for Students account for more information regarding their degree requirements.

Code	Title	Hours
Major Requirements		
IS 501	Interdisciplinary Studies Seminar	1
3 SCH in Research Methodology (Align with Anchor Discipline) - select from:		3
ED 520	Education Research Literature and Techniques	
ENG 593	Research in Composition	
ENG 595	Research Literature and Techniques	
HIST 500	Historiography	
PSY 540	Research Literature and Techniques	
Anchor Discipline ¹		12
Supplemental Discipline (distinct from Anchor discipline) ¹ For Psychology and Counseling see advisor for course selections - restrictions apply		9
Supplemental Discipline (distinct from the Anchor discipline)		9
IS 590	Capstone Portfolio I	1
IS 591	Capstone Portfolio II	1
Minimum Hours for Degree		36

¹ Options for Anchor Discipline: English, Biology, History, Communication, Education Administration, Adult and Higher Education, Mathematics, Mathematics Education, Instructional Technology, Reading, Special Education, Education, or a discipline transferred from another accredited institution. Psychology (restricted courses), Counseling (restricted courses), Management, and Economics can only be taken as Supplemental Disciplines.

Requirements for Graduation and the Capstone Portfolio

The requirements for graduation include: (1) Minimum of 3.00 grade point average overall for graduate coursework; (2) no course grades below a C; (3) Completion of all required courses and the minimum number of program SCH; (4) a passing score on the program portfolio, along with passing grades on IS 590 and IS 591. IS 590 and IS 591 will provide instruction and mentoring to students on how to develop a professional portfolio that demonstrates the candidate's level of mastery related to the outcomes specified for graduate school and the goals of the IS program. Students should plan to take IS 590 Portfolio in their first or second term and IS 591 during the final term. The on-going nature of the portfolio development process allows students the opportunity to collect exemplary artifacts, reflect on work in progress, and dialogue with university faculty and other mentors on one's personal growth and learning throughout the program. A portfolio is a unique requirement as it fosters self-reflection on the holistic learning outcomes from an interdisciplinary perspective. It showcases one's breadth and depth of mastery and requires the student to be more self-directed in integrating and documenting their knowledge, attributes, and skills. The portfolio should show the interrelatedness of the three disciplines selected. The assessment process follows a rubric will be disseminated to MSIS majors during IS 501. The degree program coordinator and one faculty mentor in the student's anchor area assess the final portfolio product on a pass/fail basis.

Graduate Courses in Interdisciplinary Studies

IS 501. Interdisciplinary Studies Seminar. 1 Hour.

This course provides orientation to advanced interdisciplinary study by addressing the conceptual foundations and benefits of an interdisciplinary degree, in concert with tools for career exploration and development. Students will devise an official, customized degree plan integrating their areas of study, and begin a regimen of "readings" related to the anchor discipline. The course also provides a strong foundation for graduate scholarly inquiry and academic writing, using an interdisciplinary approach. Students begin work on their portfolios with preliminary information on artifact collection and portfolio concepts. The course is offered fall and spring terms. Pre-requisite: IS major and first semester of program entry.

IS 518. Thesis. 6 Hours.

This course affords students the opportunity to undertake individual research. It is graded on a (S) Satisfactory or (U) Unsatisfactory basis. (6 SCH).

IS 589. Individual Study. 1-3 Hours.

This course provides individual instruction. Students may repeat the course when topics vary.

IS 590. Capstone Portfolio I. 1 Hour.

Portfolio I is the first course of a two-course sequence required for all MSIS majors. IS 590 addresses the goal and benefits of portfolios at the graduate level, the overall framework and components for developing an educational portfolio, and artifact collection and annotation. Portfolio I cannot be taken concurrently with IS 591 Capstone Portfolio Part II. Typically offered Fall/Spring. Prerequisite: IS 501. Cross-listed with AHED 590. Credit for both IS 590 and AHED 590 will not be awarded.

IS 591. Capstone Portfolio II. 1 Hour.

This course is the second course of a two-course sequence required for all MSIS majors. The MSIS capstone portfolio satisfies the comprehensive assessment requirement for the degree and provides authentic, more direct evidence that a student has mastered program outcomes. This course provides instruction and guidance on the final compilation of the portfolio, including selecting and arranging artifacts that demonstrate mastery of program outcomes and other graduate student learning outcomes, concept mapping, and writing reflective narrative. Typically offered fall/spring. Prerequisite: IS 590, withing 12 SCH of program completion and in good academic standing.

IS 595. Research Literature and Techniques. 3 Hours.

This is a review of research studies produced by investigators in student's major field with emphasis on investigative and verification techniques employed. Students will demonstrate competence in using systematic research techniques by investigation and formal reporting of a problem.

IS 596. MSIS Research Project. 3 Hours.

This is an independent/directed study course wherein the student refines and completes a final project for the MSIS degree. The instructor and an outside evaluator will work with the student during the semester, with the student submitting rough drafts of the project throughout the semester. The student will be evaluated by their mentor and two additional faculty. The faculty will look for evidence that the student has mastered the learning outcomes expected in the MSIS program.

IS 597. Special Topics. 3 Hours.

Instructors will provide an organized class designed to cover areas of specific interest. Students may repeat the course when topics vary.

AE 525. History and Philosophy of Adult Education. 3 Hours.

This course is an exploration of adult education as a field of study, research, and practice in the United States. Leaders, movements and agencies, economic, social and philosophical factors which have contributed to the growth of adult education will be discussed. Prerequisite: Major in Adult Education and consent of instructor.

AE 529. Leadership in Adult Education Programs. 3 Hours.

This course examines the principles of leadership necessary in managing the Adult Education function in a variety of work contexts. It includes theories of change and implementing change interventions. Also, the course addresses management strategies and practical problems that educational directors may face. Prerequisite: Major in Adult Education and consent of instructor.

AE 589. Individual Study. 1-3 Hours.

This course provides individual instruction. Students may repeat the course when topics vary.

AE 595. Research Methods in Adult Education. 3 Hours.

This course is a required component for the Masters Degree in Adult Education. The purpose of the course is to introduce graduate students to the process of planning research, basic vocabulary, techniques to review the related literature, quantitative approaches to the study, concepts and methods of data collection and data analysis, and the process of writing scientific studies. Prerequisite: Major in Adult Education.

AHED 505. Higher Education in the 21st Century. 3 Hours.

The course presents an overview of the status of American higher education, specifically examining the social, political, and economic forces challenging institutions. Finance, federal and state governance, student demographics, curricular changes and academic leadership are key points of study.

AHED 508. Student Services Administration in Higher Education. 3 Hours.

This course is designed as an introduction to the roles, functions, and skills necessary for college student personnel professionals. Students will learn the theory and practices relative to the three basic approaches to the profession: counseling, student development, and organizational leadership. A cursory history of the profession will also be included, as well as current trends and issues.

AHED 513. Overview of Human Resource Development. 3 Hours.

This course is an introduction and overview to the discipline of Human Resource Development. The course addresses the processes of planning and implementing organizational training systems, assessing educational and developmental needs of employees, and examines the various applications of the HRD field used to enhance employee performance.

AHED 514. Workforce Training and Development. 3 Hours.

This is an overview of training and development processes and methods used in organizations to improve individual and organizational performance. Specific topics include the role and competencies of the training specialist, methods of conducting needs assessment and task analysis, adult learning and course design principles, delivery methods, evaluating training, and other developmental activities appropriate for the contemporary for-profit and non-profit work organization.

AHED 515. Organization Development. 3 Hours.

The field of Organization Development is one of three primary functions of the discipline of Human Resource Development, which is a focus area for the AHED program. This course presents an overview of how planned behavioral and socio-technical interventions, at the macro and micro levels, can improve the effectiveness of an organization as a whole. The role of the HRD professional, acting as change agent or facilitator, will be emphasized. Theoretical foundations and practical change strategies used in an OD process will be studied. Prerequisite: Graduate standing.

AHED 520. Professions and Practices in Adult and Higher Education. 3 Hours.

This course provides students a survey of the major dimensions of the field of adult education, an overview of its goals and purposes, constituencies, providers and agencies within the United States, and major figures that have contributed to the research and practice in the field. The course will explore the status of the profession in the United States, and the interrelationship of adult education and the contemporary higher education area.

AHED 526. Adult Learning and Development. 3 Hours.

This course focuses on adult learning theories and principles, characteristics of adults as learners, phases of the adult life and factors that influence the development of adults, particularly the cognitive and emotional. Various types of learning models are addressed, such as formal, incidental, informal and self-directed. Students also analyze learning styles, and the adult's motivation for learning. Prerequisite: Graduate standing.

AHED 527. Program Planning in Adult Education. 3 Hours.

This course examines the principles and procedures in program planning for adult education forums, such as comprehensive training sessions, conferences, and symposiums. Students will be introduced to various models and theories for planning, current trends and issues, and skill areas including context analysis, budget planning, project management, ethical considerations, and program evaluation.

AHED 528. Instructional Design and Methodology. 4 Hours.

This course examines the principles and best practices of designing instruction for adult learners and methods to deliver content. Specific topics include lesson planning, content sequence, selection and use of methods, practices for the diverse classroom, platform skills for the teacher of adults, motivational techniques, and creating instructional materials for a variety of contexts. The course will cover traditional methods of instruction, as well as innovative approaches.

AHED 530. Needs Assessment and Evaluation. 3 Hours.

This course is segmented into two parts. Part I covers the models, theories and techniques applied in assessing an organization's educational/developmental needs to promote effective planning of employee development. Part II addresses how program goals and objectives may be evaluated from the broad organizational perspective down to the individual assessment of learning and change. Prerequisite: graduate standing.

AHED 532. Transformational Leadership and Human Relations. 3 Hours.

The course facilitates development of self, organization, and community through enactment of adult learning theory as it relates to transformational leadership values. The scope of study includes analysis of classic and current transformational leadership theory and the development and implementation of leadership and change projects: (1) self-study and (2) site study. Human relations skills are included as foundation to effective leadership and facilitating change in organizations. Areas of impact include higher education, adult education, healthcare, non-profit, faith-based organizations, local and state government, civil service, and other public and private organizations and agencies that function within dynamic settings requiring effective engagement of human and technological resources. This course is cross-listed with ITED 532. Prerequisite: graduate standing.

AHED 588. Practicum in Adult/Higher Education (EL). 1 Hour.

This graduate capstone is a project-based course in which students design, develop and deliver a significant educational/training session to adult learners in an authentic context. This course is entirely independent in nature and highly experiential. An internship may also be arranged as a practicum, with inclusion of design/delivery of one instructional session for an adult audience. The student is expected to synthesize connections between the teaching experience and academic field of study.

AHED 589. Ind Study in AHED. 3 Hours.

This course provides individual instruction. Students may repeat the course when topics vary.

AHED 590. Capstone Portfolio I. 1 Hour.

This course aids the student in developing an educational portfolio as part of the program's capstone assignments. The goals and benefits of portfolios will be addressed, as well as the overall framework and components. Specific topics include selection and annotation of artifacts, reflection on development and progress throughout the graduate program, and how the student demonstrates the program's outcomes. Prerequisite: Adult and Higher Education major. Typically offered Fall/Spring. Cross-listed with IS 590. Credit for both AHED 590 and IS 590 will not be awarded.

AHED 597. Special Topics. 3 Hours.

This course is designed to teach students about interpersonal communication, application of theoretical concepts to the analysis of interpersonal interactions, become aware of individual strengths and weaknesses when functioning in interpersonal contexts, and to develop skills for more effective interpersonal relationships. Prerequisite: Graduate standing.

BIOL 515. Darwin and the Origin of Species. 3 Hours.

This course will focus on Darwin's hypotheses and compare his ideas with modern developments in the study of biological evolution.

BIOL 520. Global Change. 3 Hours.

This course will focus on global change. Major topics include climate change, sea-level change- and coastal inundation, ocean acidification, and permafrost and the changing Arctic. Prerequisite: Graduate student standing.

BIOL 521. Endangered Ecosystems. 3 Hours.

This course will focus on endangered ecosystems and organisms from around the world. Students will study coral reefs, Brazilian rainforest destruction, amphibian crisis and the Gulf of Mexico dead zone in detail. Prerequisite: Graduate student standing.

BIOL 522. Atmosphere and Biosphere. 3 Hours.

This course will focus on how the atmosphere affects the biosphere. Stratospheric Ozone, Black Carbon (Soot), El Nino, and Carbon Monoxide: Its Environmental Impact will be studied in detail. Prerequisite: Graduate student standing.

BIOL 530. Astrobiology. 3 Hours.

This course will focus on the understanding that astrobiology is concerned with the origin, evolution, and distribution of life in the Universe. It investigates life in its cosmic context. As a graduate course, it will also include an intensive 5,000 word term paper. Cross listed with BIOL 430. Prerequisite: Two semesters of Biology or permission of the instructor.

BIOL 531. Genetic Engineering. 3 Hours.

This upper-division course will give a detailed overview of methodologies and techniques of molecular biology that allow the isolation, handling, and manipulation of DNA sequences in order to obtain a genetically modified protein or structurally alter the genome of an organism. In addition, students will explore the effects of genetic engineering applications on medicine, agriculture, biology, forensics, and other areas of technology. The discussion of potential ethical concerns of genome manipulations will also be included in this course. Prerequisites: Successful completion of two semesters of biology or approval by the instructor. It is recommended to have at least one other more specialized biology course such as Genetics (BIOL 310), General Microbiology (BIOL 311) or Introduction to Biotechnology (BIOL 490).

BIOL 543. Paleozoology. 3 Hours.

This course looks at the evolution of modern animals by bringing together recent advances in genetics with the fossil record. This course will provide an evolutionary perspective on the origins of important groups of animals from single-celled organisms to modern humans through lectures, discussions, and hands-on workshops with fossils. Prerequisite: BIOL 308 or instructor permission.

BIOL 545. Virology. 3 Hours.

This course will introduce students to the biology of viruses, with a particular focus on viruses of medical importance. Topics covered will include virus structure; classification, evolution, and life cycles of viruses; methods used to study viruses; their interaction with host cells; mechanisms of pathogenicity; host responses of the host to viral infection and vaccine applications; in-depth study of the life cycles of the major classes of viruses and discussion of emerging viruses. Prerequisite: Two semesters of biology and BIOL 311, or instructor permission.

BIOL 546. Survey of Human Disease and Pathophysiology. 3 Hours.

This course is designed to provide the structural and functional characteristics of common and important diseases as well as the principles of diagnosis and treatment.

BIOL 547. Synthetic Biology. 3 Hours.

This course will explore the application of synthetic biology in the biomolecular sciences, looking at a range of techniques that have been used to build useful tools from biological components. We will focus on the current use of molecular bioengineering in the area of human health. This course reinforces advanced concepts in molecular biology, and would be useful for students interested in careers in medicine or pharmaceutical research. Cross-listed with BIOL 447. Prerequisite: Two semesters of biology and one semester of microbiology or approval of instructor.

BIOL 548. Vaccine and Antiviral Development. 3 Hours.**BIOL 556. Medical Microbiology. 3 Hours.**

This upper-division course is designed to introduce students to the microbial species that cause human disease, with a special focus on bacterial and viral infections. Students will study the basic concepts of clinical microbiology, immunology, and epidemiology. Current topics will also be discussed, such as antibiotic resistance, public health threats, and global health. Prerequisites: Successful completion of two semesters of biology or approval by the instructor. It is recommended to have at least one other more specialized biology course such as Genetics (BIOL 310), General Microbiology (BIOL 311) or Cell and Molecular Biology (BIOL 402).

BIOL 587. Human Parasitology. 3 Hours.

This course is designed to provide students an overview of human parasites and their diseases. Topics include morphology, taxonomy, diagnosis, treatment, modes of transmission, and control of the major parasitic organisms in humans. A large portion of the above is learned by knowing the life cycles of the parasites in question and, thus, how to break the chain of infection. Parasitology is an interdisciplinary course that encompasses the fields of pathology, immunology, ecology, entomology, epidemiology, and systematics. Therefore, you won't only learn about parasites but also gain valuable knowledge of related disciplines. Prerequisites: Successful completion of two semesters of biology or approval by instructor. It is recommended to have at least one other more specialized biology course such as General Microbiology (BIOL 311), Cell and Molecular Biology (BIOL 402) or Immunology (BIOL 425).

BIOL 589. Independent Study. 3 Hours.

This course provides individual instruction. Students may repeat the course when topics vary.

BIOL 597. Special Topics in Biology. 3 Hours.

Instructors will provide an organized class designed to cover areas of specific interest. Students may repeat the course when topics vary.

BIOL 599. Independent Research. 1-6 Hours.

Independent research in Biology conducted by a student under the guidance of a faculty member of his or her choice. Credits and hours are by arrangement and, with a change in content, this course may be repeated for credit. Prerequisite: Consent of instructor.

ED 500. Induction for Novice Teachers. 3 Hours.

Prerequisite: Employment in a local public school. This is systematic training and ongoing support for new teachers before the first day of public school and continuing throughout the first semester. Students in the Alternative Certification Program, those in POINTE: Partnering Opportunities Inspiring Novice Teacher Excellence (a Regents Initiative II program), and newly certified teachers are invited to participate to enhance their public school students achievement and for their own career satisfaction. The course will begin with two days in the summer of training for setting up their classrooms and gearing up for the first week of their teaching career. A Needs Assessment will be conducted during these sessions that will determine the topics of the speakers for the monthly seminars.

ED 503. Curriculum for Teaching Young Children. 3 Hours.

In this course, students will study research-based program models and curricula appropriate for both early childhood and developmentally delayed children.

ED 506. Classroom Management and Basic Law for Teachers. 3 Hours.

This course presents all aspects of classroom management from organizing classroom space to strategies for dealing with student behavior. Basic Texas education laws will be presented ranging from contracts to the First Amendment in schools. This course will prepare the student to feel confident not only on the first day of school but for the entire year. Prerequisite: Must be admitted into the Alternative Certification Program.

ED 508. Introduction to Teaching. 3 Hours.

This course examines learning theories along with their impact on strategies for effective teaching. Educational measurement and evaluation (STAAR) used by schools will be studied. Prerequisite: Must be admitted into the Alternative Certification Program.

ED 510. Clinical Practicum for Initial Teacher Certification. 6 Hours.

This course provides practical work in the public school setting which includes clinical teaching for the Graduate/Alternative Certification Program (ACP). Clinical teachers participate for 15 weeks in a public school setting. Teaching by the clinical teacher is directed and supervised by an Instructional Leadership Team (ILT). A required orientation and seminars will be offered which address various legal and ethical issues of education as well as current educational topics. This course is graded on a Satisfactory (S) or Unsatisfactory (U) basis for 6 SCH. Prerequisite: Candidate must meet eligibility requirements for admission to the Alternative Certification Program and complete "Intent to do Clinical Practicum" by October 1.

ED 520. Education Research Literature and Techniques. 3 Hours.

This course addresses the process and tools to locate, read, understand, and critique education research. The fundamental techniques of planning, conducting, and reporting qualitative and quantitative research will also be considered. Prerequisite: Admission into the Educator Preparation Program or instructor permission.

ED 530. Human Growth and Development for Educators. 3 Hours.

This course examines cognitive, physical, psychological, and social development of humans from conception through adolescence (0-20 years). Theoretical frameworks, critical issues, and current research pertaining to each life-stage are included. Educational implications of domain specific developmental factors are highlighted. Study of the overlay of creativity, resiliency, and focus of control are added psychological variables integrated for further understanding of developmental influences on student success and/or failure in learning and school. Prerequisite: Must be admitted into the Alternative Certification Program.

ED 547. Evaluating Learning. 3 Hours.

This course will address the components of a comprehensive assessment program to improve student achievement, the process and procedures to manage these systems, the differences and similarities between formative and summative assessment. The course considers the situational application of assessing student needs, developing instructional goals, designing instructional assessments to achieve goals, and evaluating students' work for improvement and achievement. Students will learn the importance of the alignment of the written, taught, and tested. Prerequisite: ED 520 and must be admitted into the Alternative Certification Program.

ED 551. Effective Strategies for Student Success. 3 Hours.

This course focuses on effective best-practice teaching and learning strategies aligned to the written and assessed curriculum. Emphasis is placed on the use of research-based instructional strategies in the classroom. Prerequisite: ED 520.

ED 557. Innovative Learner-Centered Strategies for Student Success. 3 Hours.

This course contains the professional body of knowledge necessary for the effective teaching of diverse learners for student success. Course emphasis is centered on understanding theories and strategies that address the needs of a diverse population in the public school systems.

Prerequisite: Must be admitted into the Alternative Certification Program.

ED 570. Strategies in Composition. 3 Hours.

This course engages students in research and evaluation of teaching composition, remedial, and creative writing. In addition, each student researches an area of special interest within the field of composition studies, writes a review of this research, and presents a summary of findings in an oral presentation to the class. This course is cross listed with ENG 570. Prerequisite: Instructor permission. Corequisite: ED 571.

ED 571. Improving Students' Writing in the School. 3 Hours.

Students analyze current research in composition and writing across the curriculum, with special emphasis upon the theoretical approach developed by the National Writing Project. Further, after researching an area of special interest, each student applies theoretical principles by developing a unit of instruction and presenting a demonstration. This course is cross listed with ENG 571. Prerequisite: Instructor permission. Corequisite: ED 570.

ED 573. Leadership and Mentoring in Education. 3 Hours.

ED573 is a core requirement for graduate students seeking a degree in Curriculum & Instruction or a prescribed elective for graduate students seeking master teacher certification. The course focuses on building leadership capacity with a focus on diversity, equity, and inclusion through the role of the master teacher. Techniques for effective consultation, mentoring, and coaching will be addressed along with specific strategies for professional collaboration. The content of this course will be included in comprehensive exams for degree seeking students. Prerequisite: ED 520.

ED 577. Public School Law for Teachers. 3 Hours.

This course educates current and future teachers to become legally literate. A study of the federal and state legal framework will serve as the foundation for a more in-depth investigation of the impact of, and relationship between, constitutional, statutory, administrative, and judicial (case) law on a teacher's personal and professional life. Prerequisite: None.

ED 578. Global Studies in Education. 3 Hours.

This course addresses the concepts and theoretical approaches of comparative education and investigates relevant global issues through international field experience and cultural immersion. Prerequisite: Course requires travel outside of the United States.

ED 580. Professional Certificates Practicum. 0 Hours.

This course is a zero schedule hour course required in the final semester of professional certificate and/or degree programs with certificate. During the practicum students are engaged in 160 clock hours of activity to demonstrate proficiency in each of the educator standards for the certificate class being sought. Prerequisite: Candidates must have the approval of the program coordinator and the university certification coordinator before enrolling in the course.

ED 585. Alternative Certification Program Supervised Internship. 3 Hours.

This course provides supervised experiences for interns on Probationary Certificates. A total of six hours, over two semesters, must be earned to be recommended for a Standard Certificate. This course is graded on a Satisfactory (S) or Unsatisfactory (U) basis. Prerequisite: Meets admission requirements to the Alternative Certification Program and obtains Probationary Teaching Certification.

ED 589. Individual Study. 3 Hours.

This course provides individual instruction. Students may repeat the course when topics vary. Prerequisite: Requires a student contract approved by the instructor and dean.

ED 590. Curriculum Alignment for School Improvement. 3 Hours.

This course addresses theories and related practices of applied curriculum leadership including topological and deep alignment of the written, taught, and tested curriculum. Students will study research-based curriculum-related elements of high performing schools. Prerequisite: ED 520.

ED 591. Interdisciplinary Curriculum Design. 3 Hours.

This course addresses theories and related practices of applied curriculum leadership including topological and deep alignment of the written, taught, and tested curriculum. Students will study research-based curriculum-related elements of high performing schools across disciplines within a specific context. Prerequisite: Participation in a TISD co-hort.

ED 592. Interdisciplinary Curriculum Delivery. 3 Hours.

This course focuses on effective best-practice teaching and learning strategies aligned to the written and assessed curriculum. Emphasis is placed on the use of research-based instructional strategies in the classroom within a specific context. Prerequisite: Participation in a TISD co-hort.

ED 593. Teaching in a Multicultural Setting. 3 Hours.

This course surveys the historical, psychological, social, and economic factors influencing pupil behavior in the public school setting. Students investigate in-depth cross-cultural studies and teaching strategies relating to subject matter and social-education experiences of major U.S. minority groups.

ED 597. Special Topics. 3 Hours.

This is an organized class designed to probe new curricula designs, instructional strategies, or evaluative techniques. May be repeated when topics vary.

EDLD 510. Curriculum Studies. 3 Hours.

This course is designed to develop comprehensive understanding of modern curricular trends. The course includes historical data and current research with emphasis on aims, purposes, and outcomes of curricular changes.

EDLD 525. Executive Leadership (EL). 3 Hours.

This course is designed to develop skills necessary for a principal to lead a campus at the executive level. It will provide both the knowledge and the skills needed by an instructional leader to develop relationships with internal and external stakeholders and to implement campus and district strategic goals. Learning will focus on improving student outcomes through organizational collaboration, resiliency, problem solving, and change management. Prerequisite: Admitted into the Educator Certification Program or instructor permission.

EDLD 531. Instructional Leadership. 3 Hours.

This course is designed to provide both the knowledge and skills needed by an instructional leader to establish and implement a shared vision and culture of high expectations for all stakeholders in the education community. Key concepts include strategies to work with educators and the community as key partners to support student learning. Prerequisite: Admitted into the Educator Preparation Program or by instructor permission.

EDLD 540. Campus Strategic Operations. 3 Hours.

This course is designed to focus on the role of the principal in the planning, development and implementation of the financial aspect of a campus including budgeting, purchasing, human resources, and business office management that most effectively and equitably meets the identified instructional needs of the building and specifically supports increased student achievement as specified in the campus improvement plan. The management component of the course will address scheduling, discipline, and facility management.

EDLD 567. Supervision of Instruction. 3 Hours.

This course is designed to focus on the role of the principal in promoting improved instruction in the classroom through the evaluation and professional development of faculty. Aspects of clinical supervision, including classroom observation, conferencing skills, and development of improvement plans through systemic staff development will be emphasized.

EDLD 570. Texas School Law (EL). 3 Hours.

This course is designed to examine the legal framework and study the impact of any relationship between constitutional law, statutory law, administrative law, and judicial law that influence school administrators and faculty. School leaders must be able to manage a multitude of legal issues. Therefore, this course will have a focus on the Family Educational Rights and Privacy Act (FERPA), privacy rights, student attendance, discipline, personnel law, special programs, and sexual discrimination [Title IX] from the perspective of a campus principal.

EDLD 574. Ethics, Equity, and Diversity. 3 Hours.

This course is designed to prepare students to administer special and compensatory education programs. Emphasis is on basic concepts, issues, problems, and procedures in the management of special and compensatory education. The student's evaluation of these programs will be from both the legal and ethical perspectives that guide decisions necessary to provide opportunities for all students to be successful in school.

EDLD 580. Data Analysis for School Improvement. 3 Hours.

This course is designed to focus on analyzing and interpreting campus and community data for decision making necessary to promote the success of all learners. Special emphasis will be on continuous improvement of the campus through analyzing demographic, perception, assessment, and school process data.

EDLD 588. Principal Internship. 3 Hours.

This course is designed as a field-based course in which the student practices acquired skills and theories in an educational setting at the middle level management position. Prerequisite: Program Coordinator's approval.

EDLD 589. Individual Study. 3 Hours.

This course is designed for individual instruction. It may be repeated when topics vary.

EDLD 597. Special Topics in Education Leadership. 3 Hours.

Instructors will provide an organized class designed to cover areas of specific interest. Students may repeat the course when topics vary.

ENG 518. Thesis. 1-6 Hours.

A master's thesis is the written result of a thorough and systematic study of a significant issue. The thesis identifies the issue, tackles significant assumptions in a critical field, explains the contribution to the field, and offers a conclusion. The finished product is original, documents critical and independent thinking, appropriate organization and format, and thorough documentation. An oral defense of the thesis is required. NOTE: Students may take no more than 6 semester credit hours in Thesis.

ENG 555. Linguistics. 3 Hours.

This course offers an introduction to principles of how language develops, changes and functions. The course focuses on the differences among world languages, the history of the English language, and analysis of modern English phonology, morphology and syntax (sound, units of meaning, word order).

ENG 565. Grant and Proposal Writing. 3 Hours.

This course introduces students to the grant writing and proposal writing processes, especially as they pertain to literacy funding opportunities at the K-12 levels. Students will learn the discourse of grant writing, research funding sources, navigate the conventions of the genre, and practice how to address these rhetorical situations effectively.

ENG 570. Strategies in Composition. 3 Hours.

Reading recent studies of the composing process, students evaluate strategies for teaching composition, including remedial and creative writing. In addition, each student researches an area of special interest within the field of composition studies, writes a review of this research, and presents a summary of finding in an oral presentation to the class. Cross listed with ED 570. Prerequisite: Instructor permission is required. Corequisite: ENG 571.

ENG 571. Improving Students' Writing in the Schools. 3 Hours.

Students analyze current research in composition and writing across the curriculum, with special emphasis upon the theoretical approach developed by the National Writing Project. Further, after researching an area of special interest, each student applies theoretical principles by developing a unit of instruction and presenting a demonstration lesson. Cross listed with ED 571. Prerequisite: Instructor permission is required. Corequisite: ENG 570.

ENG 572. Readings in Composition. 3 Hours.

This course offers students the opportunity to explore a wide range of theoretical composition strategies and help them formulate praxis for their own teaching of composition and/or their own writing.

ENG 573. Graduate Creative Writing. 3 Hours.

This course promotes the development of creative writing skills by introducing advanced concepts and exercises for writing creative nonfiction, poems, plays, and short stories.

ENG 575. Current Issues in English Studies: Graduate Capstone. 3 Hours.

This course constitutes a practicum in which students conduct an in-depth study of topics in English language, literature, or composition through traditional or applied research. Students write two capstone papers on approved topics that are appropriate for submitting to academic journals.

ENG 580. Seminar in Literature. 3 Hours.

This course offers an examination of an individual author or group of authors, the study of a literary theme, or the study of a particular genre. It may be repeated when topics vary.

ENG 589. Individual Study. 3 Hours.

This course provides individual instruction. Students may repeat the course when topics vary.

ENG 590. Seminar in Rhetoric. 3 Hours.

This course examines one or more theoretical or historical movements in, philosophical approaches to, and/or applications of rhetoric. Course may be repeated when topics vary.

ENG 591. Seminar in Composition Studies. 3 Hours.

This course examines the theoretical/historical movements in, philosophical/empirical approaches to, or applications of practices within fields relevant to composition studies. Course may be repeated when topics vary.

ENG 593. Research in Composition. 3 Hours.

Through exposure to contemporary empirical (quantitative and qualitative) research in composition studies—including the subfields of writing center studies, Teaching English as a Second Language (TESOL), writing across the curriculum (WAC), and writing in the disciplines (WID)—students will learn proper development of quantitative, qualitative, and mixed-methods research methodologies in composition.

ENG 595. Research Literature and Techniques. 3 Hours.

This course offers a review of research by scholars in selected areas of English language and literature with emphasis on critical approaches and research methodology. Students will demonstrate competence in research methodology by the investigation and formal reporting of a topic chosen in consultation with the instructor. This course is equivalent to IS 595 for English majors.

ENG 597. Special Topics. 3 Hours.

Instructors will provide an organized class designed to cover areas of specific interest. Students may repeat the course when topics vary.

HIST 500. Historiography. 3 Hours.

Historiography is the study of the principles, theory, and history of historical writing. The first half of this course examines historiography in the broadest sense of the word, with students reading about different perspectives and schools of analysis. The second half of this course focuses on historiography in its narrower sense, requiring students to research a variety of approaches, methods, and interpretations employed by historians on a particular topic. Based on their historiographic and bibliographic research of a selected topic, students are required to write a paper.

HIST 501. Methods and Principles of Historical Research. 3 Hours.

This course examines the methodology of historical research. Participants will research and write a paper on a selected topic.

HIST 505. Public History. 3 Hours.

Students in this course will apply the tools of the historian in developing their own research projects in public history. They will conduct appropriate research and will present their findings.

HIST 510. Knights and Samurai: Medieval Warrior Cultures. 3 Hours.

Warrior elites are common in the history of human societies, especially during the medieval period of Europe and Japan. Students will study the ideological, social, cultural, religious, and political influences on the development of these cultures and will gain an understanding of how they developed, flourished, and decayed.

HIST 520. Readings in the History of Colonial American. 3 Hours.

Students will read books, write reviews, and critically evaluate research in the history of Colonial America.

HIST 525. The Decline and Fall of the Roman Empire. 3 Hours.

This course will focus on the Roman Empire and its neighbors in the Mediterranean world from the first through eight centuries A.D. Topics will include the conflict between paganism and Christianity, Constantine's conversion of classical culture, Rome and the barbarians, the military collapse of the western empire, asceticism and monasticism, women in late antiquity, and the origins of Islam. All of these topics will be considered within the framework of the end of the Roman empire, though students will have great latitude to develop research projects covering any topic within the period and scope of the course.

HIST 530. Readings in the History of the American Civil War. 3 Hours.

Students will read books, write reviews, and critically evaluate research in the political, social, and military history of the American Civil War.

HIST 535. Crusades, Councils, and King Arthur: Europe in 1215. 3 Hours.

1215 was a seminal year in the history of Europe. Three broad trends in medieval history and culture all reached a confluence around this date: the signing of the Magna Carta, the Fourth Lateran Council, the crusading movement, and the writing of the Lancelot-Grail cycle. Students will examine how each of these events came to be in their effects. This will allow careful study of medieval governance and law for both kings and the medieval church, as well as the development of medieval culture and literature.

HIST 542. Research in Local and Regional History. 3 Hours.

Students will design, conduct, and present a research project based on local and/or regional history.

HIST 550. The Vietnam War. 3 Hours.

Students will read books, write reviews, and critically evaluate research in the political, social, and military history of the Vietnam War.

HIST 551. African American History. 3 Hours.

The experiences of African Americans are essential to the story of America, yet they have been marginalized in the past. In this class, we will focus on restoring these perspectives to American History.

HIST 552. Civil Rights History. 3 Hours.

The civil rights movement is often viewed as monolithic, but it was the work of many different people with different ideological approaches that animated it. From North to South, from non-violence to militance, from famous figures to ordinary people, students will learn about this rich period of American History. Prerequisite: HIST 551.

HIST 555. American History and American Films. 3 Hours.

Students study how American films can be used to better understand American history and how some films have influenced American history.

HIST 565. History of Early Texas and the U.S.-Mexican War. 3 Hours.

Through selected readings, students in this course study the social, economic, and political history of Mexican Texas, the Texas Republic, and the U.S.-Mexican War.

HIST 570. Popes, Paupers, and Heretics: The Christian Church in the Middle Ages. 3 Hours.

The Christian church was one of the most important forces in the shaping of medieval Europe. This course will allow students to study the medieval church from a variety of perspectives. Topics covered will include rise of the Papacy, the development of monasticism, the office of the bishop, lay piety, religious literature, and the codification of canon law and religious dogma. Students will learn that, far from the monolithic institution so often caricatured in later accounts, the medieval church was a vibrant institution, rife with internal arguments and tensions.

HIST 571. Latin American History thru Films. 3 Hours.

The course examines Latin American history through cinema. It will provide background on certain historical events and analyze how films have portrayed and interpreted such events. To enhance analysis of the screened films, the assigned readings play an important role in the course.

HIST 572. Colonial Spanish American. 3 Hours.

This course examines the social, economic, political, and religious forces that shaped colonial Latin America. Special emphasis will be given to the era of encounter and conquest, with later colonial eras examined in the second half of the course.

HIST 573. Readings in Mexican History. 3 Hours.

Students read a variety of materials to examine the social, cultural, economic, and political history of Mexico.

HIST 580. Asian History. 3 Hours.

Readings in the history of 20th century Asia study some of the religious, cultural, social, and political issues that influence 20th century Asian history. Students are required to read four books with sufficient proficiency to write an intellectually sound analysis. For three of the books, students will make an oral presentation and respond to class questions. Students will participate in colloquia in which their colleagues read books on similar topics. The goal is that all of the participants will have sufficient knowledge of a topic to inspire spirited verbal sparring in class. Class contributions will be evaluated.

HIST 589. Individual Study. 3 Hours.

This course provides individual instruction. Students may repeat the course when topics vary.

HIST 590. Internship (EL). 3 Hours.

The history internship offers students an opportunity to work in fields of study associated with a master's degree in history. Students will participate in a variety of tasks which will provide them an introduction to fields of work in history.

HIST 597. Special Topics. 3 Hours.

Instructors will provide an organized class designed to cover areas of specific interest. Students may repeat the course when topics vary.

HIST 599. Thesis. 1-6 Hours.

A master's thesis is the written result of a thorough and systematic study of an important issue. The thesis identifies the issue, tackles significant assumptions in a critical field, explains the contribution to the field, and offers a conclusion. The thesis must investigate an original problem, demonstrate critical thinking, exhibit appropriate organization, and provide thorough documentation. An oral defense of the thesis is required. NOTE: Students may take no more than 6 semester credit hours in Thesis.

ITED 501. Instructional Technology Foundations. 3 Hours.

This course provides an introduction to the field of Instructional Technology (IT). It addresses the fundamentals of Instructional Technology, including the history of the field, instructional systems development (ISD) models, learning theories, instructional design theories, performance technology, trends and issues, and career opportunities. Prerequisite: Instructor permission required.

ITED 511. Teaching with Emerging Technologies. 3 Hours.

The Web 2.0 and other emerging learning technologies have the potential to provide effective and powerful learning environments in which learners can develop skills the information age require. This course explores innovative ways of utilizing emerging technologies to facilitate learning and to improve the way we teach. Topics include blogs, podcasts, wikis, online social networks, virtual worlds, and digital game-based learning. Prerequisite: Instructor permission required.

ITED 512. Evaluation in Instructional Technology. 3 Hours.

This course will focus on two main components: (1) formative and summative evaluation of instructional materials and (2) program evaluations in the field of instructional technology. Students will explore several aspects of conducting evaluations: planning and designing an evaluation, developing appropriate instruments, collecting and analyzing data, and communicating results and recommendations. Prerequisite: ITED 520.

ITED 520. Instructional Design and Development. 3 Hours.

This course provides students with experiences necessary to develop the knowledge, skills, and attitudes required for designing effective instruction that meets the needs of the information age. Students will explore the instructional systems development (ISD) process, from analysis through evaluation, and engage in authentic instruction design activities. This course replaces ITED 502 and 503. Prerequisite: Permission of the instructor.

ITED 521. Instructional Multimedia Design and Development. 3 Hours.

This course prepares students to develop the ability to apply theories of multimedia learning and design principles to multimedia design and produce an effective Web-based multimedia lesson. It addresses theoretical foundations, principles of multimedia learning, multimedia design process, interface design, typography, graphic design, audio and video production, and instructional animations. Prerequisite: ITED 520.

ITED 523. Online Learning and Teaching. 3 Hours.

This course focuses on two major components: (1) research on e-learning and (2) e-learning course development. Students will explore a variety of issues in online teaching and learning, conduct research, and engage in authentic design activities. The activities include developing a design document, interviewing SME's, developing content drafts, writing media scripts, and creating an online course. Prerequisite: ITED 520.

ITED 525. Designing Online Courses. 3 Hours.

This course develops students' ability to create effective online courses. It will focus learners' attention on unique characteristics and qualities of online courses. Learners will design effective experiences and materials to facilitate learning in a variety of online environments. The course is a good complement to ITED 523 - Online Learning and Teaching. It may be taken for an elective.

ITED 526. Advanced Instructional Video Development. 3 Hours.

This course teaches principles of instructional video development including designing for learning objectives, effective audio and lighting techniques, video recording and editing. It also explores effective use of video in the classroom or training setting. This course is cross-listed with ITED 426.

ITED 530. Research in Instructional Technology. 3 Hours.

This course provides an overview of research methodologies. It examines quantitative, qualitative, and mixed methods approaches. Particularly, it emphasizes the need for improving the knowledge base about instruction and focuses on research methods for building design theory. Students will explore diverse research methods, critique research articles and develop research plans.

ITED 532. Leadership in Educational Technology. 3 Hours.

This course aims to prepare students for leadership roles in the Instructional Technology field. It explores leadership theories and models and provides practical guidance for developing basic leadership skills. Beyond the basics, it also examines new roles and skills of leaders for facilitating technology transformation as well as for building learning organization. Cross-listed with AHED 532.

ITED 545. Instructional Gamification Theory. 3 Hours.

Gamification is the application of game-design elements to non-game contexts to improve user engagement, social interaction, and competition towards mastering learning content. This course will introduce students to theories, frameworks and case studies that support gamification in education.

ITED 550. Adv Instr Web Site Development. 3 Hours.

This course introduces students to developing websites for personal use. The course covers basic web programming using HTML markup language and Cascading Style Sheets (CSS) for design. Students will also be introduced to developing websites using cloud-based web development platforms (Wix, Site Builder, GoDaddy, etc.). An emphasis will be placed on the process and products needed to create an ePortfolio website. Students will research and report on literature that supports evidence based practices for web-design and portfolio.

ITED 560. Introduction to Web-Based Instructional Content Development. 3 Hours.

This course teaches principles and application of html and object-oriented programming (using JavaScript). Special attention is placed on fundamental programming techniques, concepts, and documentation as used in instructional software development. Prerequisite: ITED 550.

ITED 580. Advanced Instructional Technology Project Management. 3 Hours.

This course introduces students to the basic processes of project management for instructional design projects. Students will learn about project development cycle, organizational issues, methods of planning, and techniques for managing the business and creative aspects of a successful instructional technology project. In addition, students will learn to use project management software for organizing, scheduling and monitoring project progress. Cross-listed with ITED 480.

ITED 589. Individual Study. 3 Hours.

This course provides individual instruction. Students may repeat the course when topics vary.

ITED 590. Internship in Instructional Technology. 3 Hours.

This course is a supervised, field-based experience in which the student demonstrates ability to apply knowledge, skills, and dispositions acquired through program coursework, to the design, development, evaluation and implementation of technology-based instructional and training projects in a "real-life" work setting. The internship experience provides students the opportunity to apply theories, concepts, and principles of instructional technology to solving an instructional or a training problem in an authentic education or corporate setting. Prerequisite: Instructor permission required.

ITED 597. Special Topics. 3 Hours.

Instructors will provide an organized class designed to cover areas of specific interest. Students may repeat the course when topics vary.

MAED 501. Number Concepts and Algebra. 3 Hours.

This course is for elementary mathematics teachers seeking certification as Master Mathematics Teachers. The course provides a rigorous study of the concepts and applications of number concepts and algebra for the elementary classroom from advanced theoretical, historical, and pedagogical viewpoints. A research component will be required. Appropriate computer software and hand held technologies will be utilized. Prerequisite: Acceptance into the Master Mathematics Teacher Certification Program or instructor approval.

MAED 502. Patterns and Geometry. 3 Hours.

This course is for elementary mathematics teachers seeking certification as Master Mathematics Teachers. The course provides a rigorous study of the concepts and applications of patterns and geometry for the elementary classroom from advanced theoretical, historical, and pedagogical viewpoints. A research component will be required. Appropriate computer software and hand held technologies will be utilized. Prerequisite: Acceptance into the Master Mathematics Teacher Certificate Program or instructor approval.

MAED 503. Measurement, Probability and Statistics. 3 Hours.

This course is for elementary mathematics teachers seeking certification as Master Mathematics Teachers. The course provides a rigorous study of the concepts and applications of measurement, probability and statistics for the elementary classroom from advanced theoretical, historical and pedagogical viewpoints. A research component will be required. Appropriate computer software and hand held technologies will be utilized. Prerequisite: Acceptance into the Master Mathematics Teacher Certificate Program or instructor approval.

MAED 520. Mathematics Methods for Secondary Education. 3 Hours.

The course is designed to provide experience with methods for teaching mathematics at the secondary level. Course content will focus on mathematics instruction and contemporary topics as outlined by the NCTM Principles and Standards for School Mathematics. Course instruction is designed to help the mathematics teacher understand how to better plan, develop, and implement teaching methods and strategies in the classroom. Appropriate computer software and hand held technologies will be utilized. Offered in the summer as needed. Prerequisite: At least 24 hours of undergraduate mathematics or instructor approval.

MAED 529. Workshop in Mathematics Education. 3 Hours.

This course is designed to provide in-service mathematics teachers with content knowledge and pedagogical techniques for teaching mathematics to grades K-12. Topics include problem solving, numbers and operations, patterns, functions, algebra, geometry and measurement, data analysis, statistics, probability, trigonometry, and calculus. Appropriate computer software and hand held technologies will be utilized. This class is offered in the summer as needed and may be repeated when topics vary. Prerequisite: At least 12 hours of undergraduate mathematics or instructor approval.

MAED 540. Problem Solving for Elementary Teachers. 3 Hours.

This course is designed to extend the participants' knowledge and skills in teaching elementary mathematical concepts utilizing exploration, conjecture, communication, and reasoning strategies. There will be an emphasis on using logic and evidence rather than the textbook as authority; critical thinking rather than memorization, and problem solving rather than repetition, and the connection of concepts to real-world applications. Students will be challenged to expand and modify their current notions about effective elementary mathematical teaching. A research component will be required. Appropriate computer software and hand held technologies will be utilized. Prerequisite: At least 12 hours of undergraduate mathematics or instructor approval.

MAED 589. Individual Study. 3 Hours.

This course provides an option for individualized instruction and research. It may be repeated when topics vary. Prerequisite: Instructor approval.

MAED 597. Special Topics. 3 Hours.

This is an organized class and may be repeated when topics vary. Prerequisite: Instructor approval.

MATH 525. Advanced Geometry. 3 Hours.

This course provides a rigorous study of the concepts and applications of advanced geometries other than Euclidean. A research component will be required. Appropriate computer software and hand held technologies will be utilized. Prerequisite: At least 24 hours of undergraduate mathematics including a course comparable to College Geometry.

MATH 533. Algebraic Structures. 3 Hours.

This course provides a rigorous study of the concepts and applications of common algebraic structures. A research component will be required. Appropriate computer software and hand held technologies will be utilized. Prerequisite: At least 24 hours of undergraduate mathematics including a course comparable to Discrete Mathematics.

MATH 537. Vector Spaces and Linear Transformation. 3 Hours.

This course provides a rigorous study of the concepts and applications of vector spaces and linear transformations from a more algebraic and theoretical viewpoint. A research component will be required. Appropriate computer software and hand held technologies will be utilized. Prerequisite: At least 24 hours of undergraduate mathematics including a course comparable to Linear Algebra.

MATH 545. Analysis. 3 Hours.

This course provides a rigorous study of the concepts and applications of the underpinnings of calculus from an advanced theoretical viewpoint. A research component will be required. Appropriate computer software and hand held technologies will be utilized. Prerequisite: At least 24 hours of undergraduate mathematics including two courses comparable to Calculus I and Calculus II.

MATH 589. Independent Study. 3 Hours.

This course provides an option for individualized instruction and research. It may be repeated when topics vary. Prerequisite: Instructor approval.

MATH 597. Special Topics. 3 Hours.

This is an organized class and may be repeated when topics vary. Prerequisite: Instructor approval.

MATH 599. Independent Research. 1-6 Hours.

This is an independent research in Math conducted by a student under the guidance of a faculty member of his or her choice. Credits and hours are by arrangement and, with a change in content, this course may be repeated for credit. Prerequisite: Consent of instructor.

RDG 501. Fundamentals of Early Literacy Instruction. 3 Hours.

The purpose of this course is to provide EC-6 teacher candidates with the knowledge and skills necessary to provide early literacy instruction to students in Kindergarten through 2nd grade that is aligned to the Science of Teaching Reading. Students will develop competency in the components of early literacy including letter naming fluency, oral language development, phonological awareness, phonics, comprehension, vocabulary development, spelling, and fluency. A variety of research-based strategies will be used to create lesson plans that reflect diverse and equitable practices and differentiate by student need. Prerequisite: Must be admitted to the Alternate Teacher Certification Program or the Reading Specialist Program.

RDG 560. Literacy Leadership and School Improvement. 3 Hours.

Students will investigate how a Reading Specialist is involved as a literacy leader at the classroom, campus and district levels to impact change aligned with research-based literacy instruction. In doing so, students will examine state data, interview campus stakeholders about strengths/weaknesses in campus data, and address deficiencies by developing a campus improvement plan (may include a master schedule/Rtl revision) and professional development that aligns with the plan. Prerequisite: Must be admitted to the Reading Specialist program.

RDG 561. Diagnosis and Intervention for Language-Based Reading Disabilities. 3 Hours.

Students will learn about language-based disabilities including dyslexia and dysgraphia and investigate research-based approaches to assessment, instruction and resources. Additionally, students will address how HB3 has affected the way Texas approaches dyslexia screening and instruction. Prerequisite: Admitted to the Reading Specialist program.

RDG 562. Diagnostic and Prescriptive Reading for Elementary Students. 3 Hours.

This course provides a framework for assessing students in all components of reading instruction aligned to the Science of Teaching Reading in order to gather data regarding strengths and weaknesses in literacy development in elementary students. Students will practice effective assessment techniques, data analysis and incorporate research-based strategies for addressing deficits or enhancing strengths into intervention lesson planning to scaffold student learning. Prerequisite: Must be admitted into Alternative Certification Program or Reading Specialist Program.

RDG 563. Content Area Literacy Instruction. 3 Hours.

This course equips content area teachers with research-based strategies and skill to incorporate reading into science, mathematics and/or social studies. Students will utilize strategies for morphemic awareness, comprehension, vocabulary and written expression to develop a unit of study based on the TEKS for a subject area of choice. Additionally students will assess curriculum materials and learn about additional tools and accommodations that teachers use to bridge student reading deficits to allow learning in the content area how to help their students learn the material presented.

RDG 589. Individual Study. 3 Hours.

This course provides individual instruction. Students may repeat the course when topics vary. Prerequisite: Requires a student contract approved by the instructor and dean.

RDG 597. Special Topics in Reading. 3 Hours.

This course will address research, strategies, and materials related to literacy development in the upper elementary grades. As guided by the TEKS in these grade levels, students will practice lesson planning incorporating research-based strategies for enhancing comprehension, vocabulary, written expression, morphemic awareness, spelling, fluency and advanced phonics.

SPED 520. Technology for Inclusion. 3 Hours.

This course focuses on developing students' understanding of learners with special needs and the use of assistive technologies (AT) to meet the needs of such learners in inclusive settings. Students will investigate inclusion, accessible design, and using technology to meet the objectives of Individualized Education Plans of students with disabilities.

SPED 525. Special Education Law. 3 Hours.

This course explores special education legislation (federal and state) influencing the current practices in public and private schools, agencies, communities, and public services relative to individuals with disabilities.

SPED 526. The Young Exceptional Child. 3 Hours.

The American population is increasingly diverse. It is critical that educators, especially early childhood and special educators, study child development from a multicultural perspective. Play is the work of young children, but children of different cultures utilize play in different ways. They also vary in the manner of communication and the manner in which they respond to adults. This course will familiarize students with research based program models and curricula that are appropriate for early childhood special education. Students will describe the characteristics of children in the early years of development who have special needs and explain the classroom adaptations that can be used to support their learning. Students will also describe appropriate social interactions, learning, language, play, and overall behaviors for young exceptional learners through a multicultural perspective.

SPED 527. Methods of Teaching Young Learners with Disabilities. 3 Hours.

In this course students will study research-based behavior management and instructional techniques appropriate for the instruction of early childhood children. Students will design and evaluate curricula using principles of developmentally appropriate practice for infants and children from birth to 5 years, including individualized, child-centered learning that is relationship-based, active, culturally sensitive and inclusive. Students will design effective family involvement and physical, social and instructional environments using universal design including applications of instructional and assistive technology for young children. Additionally, students will distinguish between young children with developmental disabilities and normally developing young children as they visit early childhood classrooms and PPCD classrooms.

SPED 540. Introduction to Exceptionalities. 3 Hours.

This course provides teachers with a foundational knowledge and basic understandings needed to work with students with exceptionalities. Students will investigate the learning and behavioral characteristics of students with exceptionalities and laws relative to this population. Prerequisite: Must be admitted into Alternative Certification Program.

SPED 541. Assessment and Instructional Planning. 3 Hours.

This course provides the student with experiences to develop competency in informal assessment procedures that address processing and learning. Students link the results of neurodevelopment assessment, curriculum-based assessment, and performance-based assessment to individualized instructional planning.

SPED 542. Methods for Exceptional Learners I. 3 Hours.

This course prepares teachers to meet the need of learners with moderate to severe disabilities, ages 3 to 21 years. The course content focuses on: methods of instruction for students with moderate to severe disabilities, research-based instructional interventions demonstrated to be effective with this specific population, and strategies to measure, document, and track student performance for the purpose of making evidence-based decisions and planning.

SPED 543. Methods for Exceptional Learners II. 3 Hours.

This course prepares teachers to meet the needs of learners with mild to moderate disabilities, ages 3 to 21 years. The course content focuses on: (1) methods of instruction for students with mild to moderate disabilities in inclusive settings; (2) research-based instructional interventions demonstrated to be effective with this specific population, and (3) strategies to measure, document, and track student performance for the purposes of making evidence-based decisions and planning.

SPED 547. Cognitive Assessment. 3 Hours.

This course provides the students with experiences to develop competent skills in individual cognitive assessment for children, adolescents, and adults. Specific emphasis is on the administration and interpretation of formal standardized instruments. Prerequisite: SPED 549.

SPED 548. Instructional Planning for Diagnosticians. 3 Hours.

This course provides the students with experiences needed to develop legal and educationally beneficial Individual Education Programs (IEPs). Students use assessment results to write Individualized Educational Plan goals, and investigate collaborative planning key stakeholders. Prerequisite: SPED 547 and SPED 549.

SPED 549. Achievement Assessment. 3 Hours.

This course emphasizes the administration of formal standardized instruments, and the use of results for instructional planning.

SPED 566. Behavior Management and Motivation. 3 Hours.

This course examines motivational and behavior management theories and strategies. The use of functional behavioral assessment, as well as its application to intervention planning, is emphasized along with current research, issues, and trends.

SPED 585. Practicum for Educational Diagnosticians. 1-3 Hours.

This course provides a platform for students in the Educational Diagnostician program to actively "shadow" a practicing diagnostician while they complete their professional activities in public school in meeting time management, assessment, collaboration, legal and ethical requirements of their position. Additionally, students will demonstrate competency in administering individual cognitive assessments using the Wechsler Intelligence Tests and Woodcock-Johnson Cognitive Assessment Battery for purposes of eligibility determination, diagnosis, and individualized instructional planning.

SPED 589. Individual Study. 1-3 Hours.

This course provides individual instruction. Students may repeat the course when topics vary. Prerequisite: Requires a student contract with approval of the instructor and dean.

SPED 597. Special Topic. 1-3 Hours.

Instructors will provide an organized class designed to cover areas of a specific topic. Students may repeat the course when topics vary.

Faculty