

# TEACHER EDUCATION

## **EDEC 540 - The Young Child: Behavior and Development in Early Childhood (3 Credits)**

Service-learning and seminar experiences addressing intellectual, physical, social, and emotional development, prenatal through grade three, within an ecological context. Child's critical thinking, creative expression, and diagnosis/assessment emphasized.

## **EDEC 546 - Education of Young Children: An Ecological Approach (3 Credits)**

An ecological study with emphasis on home-school relations, parent involvement, and community resources. Multicultural perspectives and needs of exceptional children addressed.

**Corequisite:** EDEC 469.

## **EDEC 547 - Field Problems: Teaching Mathematics Using Manipulative Materials, Grades K-3 (3 Credits)**

Instructional approaches and materials for teaching elementary school mathematics, grades K-3.

## **EDEC 570 - Internship in Environments for Teaching and Learning (3 Credits)**

Internship for practice in classrooms appropriate to early childhood education related to curriculum design and assessment. Admission to the professional program in early childhood education.

**Graduation with Leadership Distinction:** GLD: Professional and Civic Engagement Internships

## **EDEC 608 - Parent Involvement in Early Childhood Education (3 Credits)**

Analysis of programs and practices for involving parents in early childhood educational settings. Emphasizes objectives, methods, techniques, and materials for program development. Community resources for supporting programs for children in various instructional settings.

## **EDEC 690 - Independent Study (1-3 Credits)**

## **EDEC 712 - Practicum in Parent Involvement in Early Childhood Education (3 Credits)**

School- and home-based experience with parents. Emphasis upon home-school relationships and their effects upon the young child's development and learning. Participation with advisory groups, parent activities in the classroom, home visits, and parent-teacher communication. Weekly seminar sessions.

**Prerequisites:** EDEC 540 and EDEC 608 or EDEC 610.

## **EDEC 740 - The Young Child: Applying Theory and Research (3 Credits)**

Analysis and discussion of theory and research related to the education of young children. Intellectual, social, emotional, and physical development of infants, toddlers, and young children will be examined. Special emphasis on implication for developing.

**Prerequisites:** EDEC 540 and EDPY 705.

## **EDEC 742 - Advanced Study of Early Childhood Curricula and Program Models (3 Credits)**

An analysis of early childhood program models and curricula with theoretical orientation, related research, societal needs, and the student's philosophy of education.

**Prerequisites:** EDEC 540, EDEC 542, EDEC 544.

## **EDEC 744 - Advanced Study of Language Development and Communication Skills in Early Childhood Education (3 Credits)**

Provides classroom teachers with an overview of the development of language and communication skills in children, birth through eight.

**Prerequisites:** EDEC 544 or equivalent.

## **EDEC 745 - Emergent Literacy (3 Credits)**

Theories of emergent literacy and implications for literacy learning and instruction.

**Prerequisites:** EDEC 744.

## **EDEC 750 - Play Theory and Early Learning (3 Credits)**

Theory, research, and practice related to the play of young children in various settings.

## **EDEC 754 - Studies and Internships I In Teaching Social Studies -Early Childhood (3 Credits)**

Planning, designing and implementing a developmentally appropriate socio-cultural curriculum for young children, preschool through grade four.

**Prerequisites:** Admission to the MAT program.

## **EDEC 755 - Studies and Internship in Teaching Science (3 Credits)**

The study and practice of science education for preschool and primary students focusing on appropriate content, goals, and methods.

**Prerequisites:** Admission to the MAT program.

## **EDEC 769A - Internship II: Early Childhood Curriculum and Assessment (4 Credits)**

Internship for practice in prekindergarten through primary grade classrooms related to curriculum design and assessment, leading to initial certification.

**Prerequisites:** Admission to MAT program and successful completion of first semester internship.

**Corequisite:** EDEC 769B, EDEC 769C, and EDEC 770.

## **EDEC 769B - Internship II: Early Childhood Teaching (4 Credits)**

Internship for practice in prekindergarten through primary grade classrooms related to interactive teaching, leading to initial certification.

**Prerequisites:** Admission to MAT program and successful completion of first semester internship.

**Corequisite:** EDEC 769A, EDEC 769C, and EDEC 770.

## **EDEC 769C - Internship II: Early Childhood Professional Roles (4 Credits)**

Internship for practice in school settings related to professional development, leading to initial certification.

**Prerequisites:** Admission to MAT program and successful completion of first semester internship.

**Corequisite:** EDEC 769A, EDEC 769B, and EDEC 770.

## **EDEC 770 - Early Childhood Internship Seminar (3 Credits)**

Seminar for students seeking initial certification. Consideration of principles and theories of teaching and learning and strategies to translate theory into personal classroom practice.

**Prerequisites:** Admission to MAT program and successful completion of first semester internship.

**Corequisite:** EDEC 769A, EDEC 769B, and EDEC 769C.

**EDEC 794 - Leadership, Advocacy and Collaboration in Early Childhood Settings (3 Credits)**

An overview of the purposes, organizational structure, sponsorship, funding sources, and advocacy for care and education programs and the characteristics, roles, and responsibilities of leaders in the field.

**EDEC 795 - Technology in Early Childhood Education (3 Credits)**

Strategies for integrating technology in early childhood education.

**Prerequisites:** EDTE 631.

**EDEC 797 - Seminar in Early Childhood Education (3 Credits)**

Synthesis of development, curriculum, cognition, and related issues in early childhood education.

**Prerequisites:** degree candidacy in early childhood education and 21 graduate hours completed.

**EDEC 810 - Special Topics in Early Childhood Education (3 Credits)**

Special and specific analyses of crucial issues in the field as they exist and emerge in the future. Provides an opportunity for students to do in-depth study of definitive areas of concern.

**EDEC 811 - Current Trends and Issues in Early Childhood Education (3 Credits)**

Analysis of innovations in the field within a historical perspective.

**EDEC 812 - Advanced Internship in Early Childhood Education (3-6 Credits)**

Supervised internship and related seminar participation in an approved setting.

**Prerequisites:** Admission to doctoral program.

**EDEC 813 - Program Development and Implementation in Early Childhood Education (3 Credits)**

Analysis of and participation in the development of program content, policy, and advocacy.

**Prerequisites:** EDEC 740, EDEC 742, EDEC 744, and admission to doctoral candidacy.

**EDEC 814 - Analysis of Current Research in Early Childhood Education (3 Credits)**

A critical evaluation of reported research in early childhood with special emphasis on recent and ongoing research programs.

**Prerequisites:** EDEC 740, EDEC 742, EDEC 744, and admission to doctoral candidacy.

**EDEC 815 - Advanced Study of Early Childhood Curricula (3 Credits)**

An analysis of early childhood curriculum alternatives that focus on theoretical orientation, related research, societal needs, and the student's philosophy of education.

**Prerequisites:** EDEC 740, EDEC 742, EDEC 744, and admission to doctoral candidacy.

**EDEC 890 - Independent Study (3 Credits)****EDEL 505P - Inquiry Practicum: The Elementary School (1 Credit)**

Identifying and understanding the various components of the elementary environment through the practice of inquiry through field-based experiences.

**Corequisite:** EDEL 305.

**EDEL 506 - Integrated Curriculum in Elementary Schools (3 Credits)**

Examining and practicing a variety of approaches that connect the content of different elementary school subjects.

**EDEL 506P - Inquiry Practicum: Roles of Elementary Teachers (1 Credit)**

Identifying and understanding the roles of elementary teachers through the practice of inquiry through field-based experiences.

**Corequisite:** EDEL 506.

**EDEL 510 - Teaching Second Languages to Young Children (3 Credits)**

To assist prospective teachers of young children in the development of a second language and multicultural learning activities. Practicum sessions are an integral part.

**Prerequisites:** 210 level of a foreign language or its equivalent.

**Cross-listed course:** FORL 510

**Graduation with Leadership Distinction:** GLD: Professional and Civic Engagement Internships

**EDEL 515 - Science in the Elementary School (3 Credits)**

Reinforces the science background of prospective and practicing elementary teachers. Innovations are examined. Emphasis is placed on methods, materials, community resources, and evaluation procedures.

**EDEL 544 - Modern Approaches to Mathematics Teaching (3 Credits)**

Curriculum and pedagogy for mathematics topics taught in grades 3 through 8.

**EDEL 548 - Field Problems: Teaching Mathematics Using Manipulative Materials, Grades 4-6 (3 Credits)**

Instructional approaches and materials for teaching elementary school mathematics, grades 4-6. This course cannot be applied to a graduate degree in the elementary education program.

**EDEL 560 - Social Studies in the Elementary/ Middle School (3 Credits)**

Fundamentals of social studies education in the elementary/middle school.

**EDEL 570 - Internship in Environments for Teaching and Learning (3 Credits)**

Internship for practice in classrooms appropriate to elementary education related to curriculum design and assessment.

**Prerequisites:** Admission to the internship in elementary education.

**EDEL 571 - Internship in Planning and Motivation (3 Credits)**

Field experience that emphasizes planning lessons that actively engage students in learning.

**Prerequisites:** Admission to the internship in elementary education.

**Graduation with Leadership Distinction:** GLD: Professional and Civic Engagement Internships

**EDEL 642 - Teaching Mathematics to Young Children (3 Credits)**

Analysis of a developmental approach to teaching children under the age of 9.

**EDEL 645 - Diagnostic Teaching of Arithmetic (3 Credits)**

Analysis of the concepts and skills of arithmetic in the school mathematics curriculum; exploration of diagnostic-prescriptive teaching methods.

**EDEL 670 - Language Arts in the Elementary and Middle School (3 Credits)**

Examine the content, goals, and methods of teaching language arts in elementary and middle school.

**EDEL 690 - Independent Study (1-3 Credits)**

**EDEL 701 - Culturally Sustaining Pedagogy for the Elementary Classrooms (3 Credits)**

Theoretical and pedagogical approaches to Culturally Sustaining Pedagogy (CSP)—curriculum design tools and instructional strategies that reflect the diversity of students' cultural and linguistic backgrounds in elementary classrooms. Masters of Arts in Teaching for Elementary Education Majors.

**EDEL 709 - Curriculum and Instruction Practices Designed to Teach Content & Literacy Across the Curriculum (3 Credits)**

An investigation of the beliefs and practices of high quality instructional methods and materials designed to teach elementary readers, writers, mathematicians, scientists and social scientists. Individual content area instruction will be addressed as well as strategies for genuine integration across the curriculum. Special attention will be devoted to teaching diverse populations including English Language Users, in culturally responsive ways.

**EDEL 715 - The Elementary School Curriculum (3 Credits)**

Critical study of the modern elementary school curriculum.

**EDEL 716 - The Elementary School Organization (3 Credits)**

A course designed to examine the internal facets of the elementary school, including the library; health, guidance, and other pupil personnel services; curriculum revision; elementary school procedures; and pupil accounting.

**Prerequisites:** EDEL 715.

**EDEL 717 - Curriculum Problems in the Elementary School (3 Credits)**

A careful examination of the persistent problems of elementary schools (grouping, promotions, etc.) and the best solutions in terms of research findings and expert opinion.

**Prerequisites:** EDEL 715.

**EDEL 720 - Middle School Organization and Curriculum (3 Credits)**

An overview of the development of the middle school, history, purposes, and organization and an in-depth analysis of middle school organization and curriculum. The characteristics of middle school students, methods of evaluating students, and the overall curricular program are also considered.

**EDEL 743 - Studies and Internship in Teaching Social Studies-Elementary (3 Credits)**

The study and practice of social studies education for elementary students focusing on appropriate content, goals and methods.

**Prerequisites:** Admission to the MAT program.

**EDEL 744 - Studies and Internship in Teaching Science - Elementary (3 Credits)**

The study and practice of science education for elementary students focusing on appropriate content, goals and methods.

**Prerequisites:** Admission to the MAT program.

**EDEL 745 - Teaching Elementary Problem Solving, Geometry and Measurement Topics (3 Credits)**

Analysis of the school curriculum and instructional methods in the designated areas of mathematics; exploration of appropriate outcomes on instruction.

**Prerequisites:** MATH 221 or its equivalent.

**EDEL 760 - Implementing Social Studies in the Elementary/Middle School (3 Credits)**

The selection of teaching procedures and instructional materials used to teach social studies in the elementary/middle school.

**EDEL 771 - Teaching Writing in Elementary and Middle School (3 Credits)**

Writing instruction in relation to the developmental characteristics of children through preadolescence.

**EDEL 780 - Seminar in Elementary Education (3 Credits)**

Students will synthesize their graduate studies for a master's degree in elementary education. 24 semester hours of credit earned as specified on the master's degree program of study.

**EDEL 790 - MAT Internship in Elementary Education (9 Credits)**

Internship for practice in elementary classrooms (grades 2-6) related to curriculum design, assessment, interactive teaching, and professional roles.

**Prerequisites:** Admission to Internship II in Elementary Education.

**Corequisite:** EDEL 791.

**EDEL 790A - Internship II: Elementary School Instruction (4 Credits)**

Internship for practice in classroom settings related to curriculum design and implementation, leading to initial certification.

**Prerequisites:** Admission to MAT program and successful completion of first semester internship.

**Corequisite:** EDEL 790B, EDEL 790C, EDEL 791.

**EDEL 790B - Internship II: Elementary School Instruction (4 Credits)**

Internship for practice in classroom settings related to instruction, leading to initial certification.

**Prerequisites:** Admission to MAT program and successful completion of first semester internship.

**Corequisite:** EDEL 790A, EDEL 790C, EDEL 791.

**EDEL 790C - Internship II: Elementary School Professional Roles (4 Credits)**

Internship for practice in classroom settings related to professional development, leading to initial certification.

**Prerequisites:** Admission to MAT program and successful completion of first semester internship.

**Corequisite:** EDEL 790A, EDEL 790B, EDEL 791.

**EDEL 791 - Elementary Internship Seminar (3 Credits)**

Seminar for students seeking initial certification. Consideration of principles and theories of curriculum development and strategies to translate curriculum into personal classroom practice.

**Prerequisites:** Admission to MAT program and successful completion of first semester internship.

**Corequisite:** EDEL 790A, EDEL 790B, EDEL 790C.

**EDEL 815 - Models of Instruction (3 Credits)**

Seminar on the relationship between different models of teaching and the cognitive, affective, social, and psychological outcomes of instruction.

**Prerequisites:** master's degree in education.

**EDEL 840 - Advanced Study of Teaching Elementary School Mathematics (3 Credits)**

Identification of instructional methods implied by recent research on mathematics teaching, learning, and curriculum.

**Prerequisites:** EDEL 645 or EDEL 745.

**EDEL 858 - Advanced Study of Science in Elementary/Middle School (3 Credits)**

Study of curriculum models and instructional theory underlying elementary and/or middle school science programs.

**Prerequisites:** EDEL 515 or equivalent.

**EDEL 860 - Advanced Study of Social Studies in Elementary/Middle School (3 Credits)**

Analysis and application of the concepts and skills that broaden the traditional scope of elementary/middle school social studies curriculum.

**Prerequisites:** EDEL 560 or EDEL 760.

**EDEL 870 - Advanced Study of Language Arts for the Elementary School (3 Credits)**

Examination of programs, content, and methods of teaching writing, speaking, reading and listening to grades 1-8 in the light of current research and theory in language learning.

**Prerequisites:** EDEL 670 or equivalent.

**EDEL 890 - Independent Study (3 Credits)****EDML 553 - Methods and Materials for Teaching Science in the Middle Grades (3 Credits)**

A study of methods, techniques, and materials of instruction appropriate to science teaching in the middle school.

**EDML 563 - Methods and Materials for Teaching Social Studies in the Middle School (3 Credits)**

A study of goals, content, methods, and materials of instruction in middle school social studies.

**EDML 572 - Middle Level Literacy Assessment (3 Credits)**

Introduces literacy assessment for individual and small groups or middle level students.

**EDML 573 - Methods and Materials for Teaching English/Language Arts in the Middle Grades (3 Credits)**

Introduces goals, content, and methods of teaching language arts at the middle level.

**EDML 583 - Methods and Materials for Teaching Mathematics in the Middle Grades (3 Credits)**

A study of methods, techniques, and materials of instruction appropriate to mathematics teaching in the middle school.

**EDML 584 - Middle School Internship Seminar (3 Credits)**

Inquiry into the issues that arise during internship B experiences including classroom management, adolescent development, legal/professional responsibilities, multicultural perspectives, and needs of exceptional children.

**Corequisite:** EDML 599.

**Graduation with Leadership Distinction:** GLD: Professional and Civic Engagement Internships

**EDRM 520 - Introduction to Testing and Evaluation (3 Credits)**

The construction and use of teacher-made tests; descriptive statistics, measurement error, norms, and interpretation of scores; types of standardized instruments for use in elementary and secondary schools.

**EDRM 690 - Independent Study (1-3 Credits)****EDRM 700 - Introduction to Research in Education (3 Credits)**

Concepts and methods of conducting research in education. Admission to graduate standing.

**EDRM 705 - Applied Educational Statistics I (3 Credits)**

Introduction to methods of statistical inference in educational research, including additional topics in hypothesis testing, linear statistical models, and non-parametric analyses.

**Prerequisites:** C or better in EDRM 700.

**EDRM 706 - Applied Educational Statistics II (3 Credits)**

Advanced methods of statistical inference used in educational research, including additional topics in differences between groups, linear and nonlinear statistical models, and non-parametric analyses.

**Prerequisites:** C or better in EDRM 705 or another introduction to applied statistics course.

**EDRM 710 - Educational Statistics I (3 Credits)**

Introductory course in statistics for graduate students in education and the other social sciences. Central tendency and variability, normal distribution, simple correlation and regression, z and t tests for one and two samples, and the chi-square test. Use of statistical software.

**EDRM 711 - Educational Statistics II (3 Credits)**

Continuation of Educational Statistics I. Inference for one and two samples, factorial designs, repeated measures designs, and multiple regression. Use of statistical software.

**Prerequisites:** C or better in EDRM 710.

**EDRM 712 - Nonparametric Statistics (3 Credits)**

Applied nonparametric statistics in education and the social sciences. Distribution-free inference for repeated measures and factorial designs; logistic regression and log-linear analysis. Use of statistical software.

**Prerequisites:** EDRM 711.

**EDRM 715 - Mixed Methods Research (3 Credits)**

The study and practice of mixed methods research. The integration of qualitative and quantitative approaches and methods in research practices. Emphasis on educational research and settings with consideration of other social science fields as needed.

**Prerequisites:** An initial course in or experience with quantitative research (example - EDRM 705 or EDRM 710) and qualitative research (example - EDFI 731).

**EDRM 718 - Research and the Statistical Packages (1-3 Credits)**

Advanced use of available statistical packages in educational research. Content varies; topics and credit announced in advance. May be repeated for up to six hours of credit. May be repeated for up to 6 hours of credit.

**Prerequisites:** EDRM 710 and EDRM 711.

**EDRM 720 - Educational Measurement (3 Credits)**

The history of educational and psychological measurement. Consideration of concepts such as validity and reliability of educational and psychological measures and the rationale of the development and use of instruments for educational purposes.

**EDRM 721 - Constructing Cognitive Instruments (3 Credits)**

The rationale, construction, use, and appraisal of achievement tests as tools of educational evaluation and research.

**Prerequisites:** EDRM 710 and EDRM 720 or equivalent.

**EDRM 722 - Constructing Non-Cognitive Instruments (3 Credits)**

Consideration and the construction of educational and psychological tests and measurement instruments.

**Prerequisites:** EDRM 721.



**EDRM 723 - Classroom Assessment Methods (3 Credits)**

Emphasis in the linkages between curriculum, instruction, and assessment, and the development of assessments for learning outcomes. Methods include observations, interviewing, performance assessments, portfolios, and classroom tests.

**EDRM 724 - Survey Design and Analysis (3 Credits)**

Topics in surveys: developing the purpose and framework of surveys, item writing, questionnaire design, sampling, administration, analysis of data, and presentation of results.

**EDRM 728 - Technical Aspects of Tests and Measurements (3 Credits)**

Statistical techniques and theoretical concepts involved in educational and psychological measurement. Analysis and interpretation of test data, equating of equivalent forms, latent trait theories and models, multiple matrix sampling, and issues related to criterion-referenced testing.

**Prerequisites:** B or better in EDRM 710.

**EDRM 736 - Program Evaluation (3 Credits)**

Methods of designing and implementing evaluations of social and educational programs.

**Prerequisites:** C or better in EDRM 700 and EDRM 710.

**EDRM 737 - Internship in Research (3 Credits)**

Supervised research experience in a school, state agency, department or bureau of the University, or cooperating institution.

**EDRM 789 - Principles and Applications of Structural Equation Modeling (3 Credits)**

Theories and applications of covariance structure modeling, including reliability analysis, confirmatory factor analysis, and path analysis with observed and latent variables.

**Prerequisites:** EDRM 711 or equivalent and EDRM 721 or equivalent.

**EDRM 799 - Thesis Preparation (1-9 Credits)****EDRM 800 - Grants Administration (3 Credits)**

Analysis of grant and contract functions in government agencies; proposal writing; legal and fiscal requirements of grants administration.

**Cross-listed course:** POLI 755

**EDRM 801 - Principles and Applications of Educational Research (3 Credits)**

Concepts and application of designing research in education.

**Prerequisites:** EDRM 700 or equivalent.

**EDRM 810 - Design and Analysis of Experiments (3 Credits)**

Emphasis on the development of an understanding of the role of inferential statistics in educational experimentation, a working knowledge of the common tests in statistical analysis, and the student's ability to design and execute experiments involving application of the statistical tests.

**Prerequisites:** EDRM 711 or the equivalent.

**EDRM 812 - Hierarchical Linear Modeling (3 Credits)**

Advanced quantitative methods course in multilevel data analysis. Covers theoretical grounding, applications in the social sciences, and model building.

**Prerequisites:** C or better in EDRM 711.

**EDRM 816 - Correlational and Multivariate Methods (3 Credits)**

Advanced statistical applications including partial and multiple correlational methods, multiple regression, multivariate analysis of variance, discriminant analysis, and canonical correlation. Use of statistical software.

**Prerequisites:** C or better in EDRM 711.

**EDRM 828 - Item Response Theory (3 Credits)**

Statistical models for item response theory, Rasch and other models for binary and polytomous data, and applications. Use of statistical software.

**Prerequisites:** EDRM 711 or PSYC 710 or STAT 701 or STAT 704.

**Cross-listed course:** STAT 778

**EDRM 840 - Advanced Qualitative Inquiry in Education (3 Credits)**

Theory, methodology and practice of qualitative research in educational settings. Students will conduct research in applied settings using qualitative data collection methods including observation, interviews, focus groups, and document analysis.

**Prerequisites:** EDFI 731.

**EDRM 842 - Educational Biography (3 Credits)**

Examination of biography as a form of educational research and scholarship.

**EDRM 878 - Seminar in Research Techniques (1-3 Credits)**

Theoretical and empirical issues in qualitative and/or quantitative methods in educational research. Content varies; topics and credit announced in advance. May be repeated for up to 12 hours of credit.

**EDRM 889 - Advanced Principles and Application of Latent Variable Modeling (3 Credits)**

Study of advanced concepts, principles, techniques, and issues in structural equation modeling (SEM) and the latent variable framework.

**Prerequisites:** EDRM 789 or similar course.

**EDRM 890 - Independent Study (3 Credits)****EDRM 897 - Dissertation Seminar in Education (3 Credits)**

Topics involved with major issues in the planning and conducting of significant research in education. Several faculty members participate; a forum is provided in which candidates may present for analysis original research designs primarily related to their dissertations.

**EDRM 899 - Dissertation Preparation (1-12 Credits)****EDSE 500 - Equity and Community Engagement (3 Credits)**

Field-based inquiry into theories of critical multicultural education, culturally relevant and equity pedagogies with an emphasis on middle/high school students and engaging parents and the larger school community.

**EDSE 502 - Teachers and Teaching (3 Credits)**

Teaching as reflective and ethical practice. Professional standards, teacher leadership and school change, and various roles of professional educators.

**EDSE 508 - Teaching Middle and High School (Business Education) (3 Credits)**

A study of methods, techniques, and materials of instruction in middle and high school business education.

**EDSE 528 - Study of the Teaching of Business Education in the Secondary School (3 Credits)**

Teaching techniques and methodology related to the business education curriculum, emerging technology and software.

**EDSE 547 - Teaching Middle and High School (English) (3 Credits)**

A study of methods, techniques, and materials of instruction in middle and high school English.

**Prerequisites:** Admission to MAT program for graduate students; EDSE 402 for undergraduate students.

**EDSE 548 - Earth Science for Teachers I (3 Credits)**

Origin, internal structure and internal processes of the earth, including plate tectonics, earthquakes, volcanoes, and mountain building. Required field trips, two lectures, and three lab hours per week. Cannot be used in MS or PhD programs in geology.

**Cross-listed course:** GEOL 540

**EDSE 549 - Earth Science for Teachers II (3 Credits)**

Surface processes acting on the earth; introduction to weather and climate, weathering, erosion, and sedimentary processes; land form evolution; ocean currents and tides, near-shore geologic processes. Required field trips, two lecture, and three lab hours per week. Cannot be used in MS or PhD programs in geology.

**Prerequisites:** D or better in EDSE 548 or C or better in GEOL 540.

**Cross-listed course:** GEOL 541

**EDSE 550 - Teaching Middle and High School (Mathematics) (3 Credits)**

A study of methods, techniques, and materials of instruction in middle and high school mathematics.

**EDSE 551 - Teaching Middle and High School (Health) (3 Credits)**

A study of methods, techniques, and materials of instruction in middle and high school health.

**EDSE 552 - Teaching Middle and High School (Marketing Education) (3 Credits)**

A study of methods, techniques, and materials of instruction in middle and high school marketing education.

**EDSE 553 - Teaching Middle and High School (Science) (3 Credits)**

A study of methods, techniques, and materials of instruction in middle and high school science.

**EDSE 554 - Teaching Middle and High School (Theatre and Speech) (3 Credits)**

A study of methods, techniques, and materials of instruction in middle and high school theatre and speech.

**EDSE 558 - Teaching Middle and High School (History and Social Studies) (3 Credits)**

A study of methods, techniques, and materials of instruction in middle and high school history and social studies.

**EDSE 575 - Teaching Foreign Languages in Secondary Schools (3 Credits)**

Current methods, techniques, and materials of instruction appropriate for secondary schools.

**Prerequisites:** 210 level of a foreign language or its equivalent.

**Cross-listed course:** FORL 511

**EDSE 580 - Teaching Advanced Latin in Secondary School (3 Credits)**

Methods and materials for teaching the Latin Advanced Placement courses in secondary school.

**Corequisite:** LATN 580.

**EDSE 584 - Middle and High School Internship Seminar (3 Credits)**

Classroom management, service learning, legal/professional responsibilities, multicultural perspectives and needs of exceptional children.

**Corequisite:** Internship II.

**EDSE 585 - Secondary Internship Seminar I (1 Credit)**

Integration of content, pedagogy, and disposition knowledge learned during coursework with Internship I field experiences.

**Corequisite:** Students must be enrolled in the Internship I field experiences.

**EDSE 586 - Secondary Internship Seminar II (2 Credits)**

Integration of content, pedagogy, and disposition knowledge learned during coursework with Internship II field experiences.

**Corequisite:** Students must be enrolled in the Internship II field experiences.

**EDSE 660 - Teaching Mathematics with Manipulatives, Grades 7-12 (3 Credits)**

Methods and materials for using manipulative devices to teach middle and high school level mathematics.

**EDSE 670 - Graphics Calculators in High School Mathematics (3 Credits)**

Methods and materials for using graphics calculators to teach algebra, elementary functions, and analytic geometry.

**EDSE 690 - Independent Study (1-3 Credits)****EDSE 702 - Teaching Information Management Technology (3 Credits)**

Development of curriculum and educational materials for middle and high school information technology courses; selection of equipment; techniques of teaching information management technology; practical experience with software and hardware.

**EDSE 703 - Perspectives in Teaching Secretarial Skills (3 Credits)**

Strengthening the technical competence of the business teacher. Philosophy and psychology of skill development in secretarial subjects.

**EDSE 704 - Perspectives in Teaching Bookkeeping/Accounting and Basic Business (3 Credits)**

Strengthening the technical competence of business teachers in bookkeeping/accounting and basic business, and improving instruction in these areas.

**EDSE 727 - Advanced Principles and Practices of Teaching in High School (3 Credits)**

Study of the problems involved in all teaching in the secondary school.

**EDSE 728 - Advanced Study of the Teaching of English in Secondary Schools (3 Credits)**

A study of historical developments and recent innovations in curricula, resources, and techniques in the field of teaching English in secondary schools. Students will be expected to investigate research as it relates to the improvement of instruction.

**EDSE 729 - Advanced Study of the Teaching of History and Social Studies in Secondary Schools (3 Credits)**

A study of historical developments and recent innovations in curricula, resources, and techniques in the field of teaching history and social studies in secondary schools. Students will be expected to investigate research as it relates to the improvement of instruction.

**EDSE 732 - Advanced Study of the Teaching of Science in Secondary Schools (3 Credits)**

A study of historical developments and recent innovations in curricula, resources, and techniques in the field of teaching science in secondary schools. Students will be expected to investigate research as it relates to the improvement of instruction.

**EDSE 733 - Selected Topics in Social Studies Education (3 Credits)**

Topics will be selected from various social studies education fields, including trends, methods, and materials of social studies education. May be repeated; credit up to six hours may be applied toward a degree.

**Prerequisites:** EDSE 729 or its equivalent.

**EDSE 764 - Advanced Study of the Teaching of Mathematics in Secondary Schools (3 Credits)**

A study of historical developments and recent innovations in curricula, resources, and techniques in the field of teaching mathematics in secondary schools. Students will be expected to investigate research as it relates to the improvement of instruction.

**EDSE 766 - Historical Topics in the Teaching of Mathematics (3 Credits)**

Use of the history of mathematics in middle and secondary school teaching.

**Prerequisites:** EDSE 764.

**EDSE 770 - Technology in Mathematics Education (3 Credits)**

Topics in the use of electronic technology in the teaching of mathematics at the middle and secondary school levels.

**EDSE 773 - Advanced Study of the Teaching of Computer Studies (3 Credits)**

Recommendations for materials, content, and methods for teaching computer-related subject matter at the middle and high school level. Experience in writing computer programs for educational purposes in the Logo, BASIC, and Pascal languages will be given.

**Prerequisites:** EDTE 731.

**EDSE 775A - Teaching Internship in Middle or High School (History and Social Studies) (3 Credits)**

Application of effective teaching techniques and organization of instructional settings for middle or high school students.

**Prerequisites:** acceptance to the Professional Program in Education.

**Corequisite:** EDSE 558.

**EDSE 775B - Teaching Internship in High School History and Social Studies (9 Credits)**

Application of effective teaching techniques and organization of instructional settings for high school students.

**Prerequisites:** EDSE 775A.

**Corequisite:** EDSE 584 or EDSE 784.

**EDSE 776A - Teaching Internship in Middle or High School (English) (3 Credits)**

Application of effective teaching techniques and organization of instructional settings for middle or high school students.

**Prerequisites:** acceptance to the Professional Program in Education.

**EDSE 776B - Teaching Internship in High School English (9 Credits)**

Application of effective teaching techniques and organization of instructional settings for high school students.

**Prerequisites:** EDSE 776A.

**Corequisite:** EDSE 584 or EDSE 784.

**EDSE 777A - Teaching Internship in Middle or High School (Business Education) (3 Credits)**

Application of effective teaching techniques and organization of instructional settings for middle or high school students.

**Prerequisites:** acceptance to the Professional Program in Education.

**EDSE 777B - Teaching Internship in Middle or High School (Business Education) (9 Credits)**

Application of effective teaching techniques and organization of instructional settings for middle or high school students.

**Prerequisites:** EDSE 777A.

**Corequisite:** EDSE 784.

**EDSE 778A - Teaching Internship in Middle or High School (Mathematics) (3 Credits)**

Application of effective teaching techniques and organization of instructional settings for middle or high school students.

**Prerequisites:** acceptance to the Professional Program in Education.

**EDSE 778B - Teaching Internship in High School Mathematics (9 Credits)**

Application of effective teaching techniques and organization of instructional settings for high school students.

**Prerequisites:** EDSE 778A.

**Corequisite:** EDSE 584 or EDSE 784.

**EDSE 781A - Teaching Internship in Middle or High School (Science) (3 Credits)**

Application of effective teaching techniques and organization of instructional settings for middle or high school students.

**Prerequisites:** acceptance to the Professional Program in Education.

**EDSE 781B - Teaching Internship in High School Science (9 Credits)**

Application of effective teaching techniques and organization of instructional settings for high school students.

**Prerequisites:** EDSE 781A.

**Corequisite:** EDSE 584 or EDSE 784.

**EDSE 783 - Advanced Study of the Teaching of Mathematics in the Middle or Junior High School (3 Credits)**

Historical developments and recent innovations in curricula, resources, and techniques in the teaching of mathematics in the middle or junior high school. Investigative research into the improvement in instruction.

**EDSE 785 - Seminars on Selected Topics in Foreign Language Education (3 Credits)**

Topics will be identified by title in the schedule of classes. Each topic may be taken only once.

**EDSE 786 - The Teaching of Literature in the Secondary School (3 Credits)**

Subject content of new literature programs; resources and innovative approaches; problems in organizing literature. Emphasis on specific teaching methodology and the development of materials.

**EDSE 787 - The Teaching of Composition in the Secondary School (3 Credits)**

New curricula in the teaching of oral and written composition; issues and problems in the composition phase of English programs; innovative teaching techniques and methodology. Development of materials appropriate to the teaching of oral and written composition.

**EDSE 788 - The Teaching of the English Language in the Secondary School (3 Credits)**

Recent innovations in curricula, resources, and teaching techniques for such topics as dialectology, usage, regional varieties of language, lexicography, language history and development, structural grammar, and transformational grammar.

**EDSE 789 - The English Teacher and Special Problems in Reading (3 Credits)**

Selected problems and solutions in reading at the secondary level. Ways to improve reading skills; research contributions to the improvements of instruction in reading.

**Prerequisites:** EDRD 514 or EDRD 518.

**EDSE 828 - Research in English Education (3 Credits)**

Research methodology and design in the field of English education. Interpretation of data and implications for further research. A preliminary dissertation proposal may be developed.

**EDSE 850 - Advanced Readings in Secondary Education (3 Credits)**

Analyses of select studies in the pertinent field(s) of specialization in secondary education. Consideration is given to implications for needed research in these fields.

**EDSE 851 - Advanced Reading in Mathematics Education (3 Credits)**

Selected topics in mathematics education, including teacher training, evaluation of programs and instruction, in-service programs, and the history of mathematics education. Current research in these areas with implications for needed research.

**EDSE 890 - Independent Study (3 Credits)****EDTE 500 - Mathematics Knowledge for Teaching I: PK-8 (3 Credits)**

Pedagogical content knowledge for teaching number concepts and operations, fraction, ratio, and proportional reasoning, and algebraic reasoning.

**EDTE 501 - Mathematics Knowledge for Teaching II: PK-8 (3 Credits)**

Pedagogical content knowledge for teaching number and operations, data concepts and statistical reasoning, geometry, measurement, and spatial reasoning.

**Prerequisites:** C or better in EDTE 500.

**EDTE 590A - Internship in Curriculum and Assessment (3 Credits)**

Internship for practice in classrooms appropriate to the level of certification sought (early childhood or elementary) related to curriculum design and assessment.

**Prerequisites:** admission to internship II in early childhood or elementary education.

**Corequisite:** EDTE 590B and EDTE 590C.

**Graduation with Leadership Distinction:** GLD: Professional and Civic Engagement Internships

**EDTE 590B - Internship in Teaching (3 Credits)**

Internship for practice in classrooms appropriate to the level of certification sought (early childhood or elementary) related to interactive teaching.

**Prerequisites:** admission to internship II in early childhood or elementary education.

**Corequisite:** EDTE 590A and EDTE 590C.

**Graduation with Leadership Distinction:** GLD: Professional and Civic Engagement Internships

**EDTE 590C - Internship in Professional Roles (3 Credits)**

Internship for practice in classrooms appropriate to the level of certification sought (early childhood or elementary) related to professional roles.

**Prerequisites:** admission to internship II in early childhood or elementary education.

**Corequisite:** EDTE 590A and EDTE 590B.

**Graduation with Leadership Distinction:** GLD: Professional and Civic Engagement Internships

**EDTE 600 - Systematic Effective Teaching (3 Credits)**

Application of research-supported effective teaching techniques to the teaching-learning process, including demonstration lessons, observations, and supervisory conferences.

**EDTE 605 - Cooperative/Team Learning in Education (3 Credits)**

Instructional approaches, materials, and procedures for utilizing cooperative/team learning in education.

**EDTE 610 - Integrated Reading and Writing Instruction (3 Credits)**

Theoretical bases and techniques for teaching reading and writing in the elementary school, using multiple subject areas.

**EDTE 611 - Whole Language: Concepts and Practices (3 Credits)**

Development of concepts, materials, and practices to implement a whole language philosophy.

**EDTE 620 - Restructuring Schools: Teachers and Classrooms (3 Credits)**

Examination of issues related to restructuring schools based on different assumptions about teaching, learning, and assessment.

**EDTE 621 - Middle Level School Today (3 Credits)**

National trends in the middle level school; emphasis on the relationship of early adolescent developmental characteristics to organization, curriculum, instruction, and teaching.

**EDTE 625 - Integrating Character Education into Instructional Programs (3 Credits)**

Rationale, processes, and methodologies for integrating character education into school or school district instructional programs.

**EDTE 626 - Service Learning for Schools, Community, and Workplace Responsibility (3 Credits)**

Assist school personnel in designing academic, personal, civic, and workplace responsibility.

**EDTE 631 - Technology to Support Instruction (3 Credits)**

Introduction to computers, educational technology, and selected applications for instructional management.

**EDTE 671 - Computers in Science Education (3 Credits)**

Use of computer technology in teaching and managing science classes and problems in grades K-12.

**EDTE 701 - Selected Topics in Teaching Science (3 Credits)**

Primarily for elementary, middle, and secondary school teachers. Teachers at other levels may be accepted.

**EDTE 710 - Developing as a Professional Educator (3 Credits)**

Concepts and strategies to assist teachers in developing as effective and successful educators in PreK through 12 schools.

**EDTE 711 - Ideas and Issues in Teaching (3 Credits)**

Examination of theoretical and philosophical concepts fundamental to understanding learning and teaching.



**EDTE 712 - Action Research in Teaching (3 Credits)**

Introduction to action research through the investigation of a significant question or issue related to teaching in PreK through 12 schools.

**Prerequisites:** EDTE 710, EDTE 711, and EDRM 700 or an approved education research course.

**EDTE 713 - Action Research Capstone Seminar (3 Credits)**

Culminating experience that includes completion of an action research project and a thorough review of professional growth.

**Prerequisites:** EDTE 712.

**EDTE 731 - Integration of Technology and Instruction (3 Credits)**

Survey of the instructional uses of computers and other technologies.

**EDTE 733 - Reading and Language Arts in Early Childhood and Elementary Education (6 Credits)**

Examination and implementation of the content, goals, and methods of teaching reading and the language arts. Emphasis on the teaching of reading, oral and written expression, and listening. K-6.

**Prerequisites:** Admission to the MAT program.

**EDTE 740 - Introduction to Project-Based Learning (3 Credits)**

Introduction to Project-based Learning theory and basics of designing, delivering and assessing it. Designed for classroom teachers who have earned an initial teaching credential or its equivalent and who wish to continue their professional development through graduate education.

**EDTE 741 - Applications of Project-Based Learning (3 Credits)**

Acquisition of experiences required to plan, create, facilitate, and integrate appropriate instructional methodologies and technology within a Project-based Learning unit of study.

**Prerequisites:** EDTE 740.

**EDTE 742 - Practicum in Project-based Learning (3 Credits)**

A field-based practicum designed to provide experience and opportunities to demonstrate knowledge, skills, and dispositions for implementing PBL into a regular classroom setting.

**Prerequisites:** C or better in EDTE 740 and EDTE 741.

**EDTE 750 - Evaluating Teacher Effectiveness (3 Credits)**

Techniques currently being used to quantitatively analyze the behavior of a teacher and his/her students while in a classroom situation.

**EDTE 751 - STEAM Instructional Design (3 Credits)**

An introduction to Integrative STEAM (I-STEAM) instructional design and the educative power of the design process, including the use of Grand Challenges and the Backward Design process in planning transdisciplinary units.

**EDTE 752 - STEAM Instructional Methods (3 Credits)**

Instructional methods in STEAM education with an emphasis on a cross disciplinary approach to creating authentic, connected STEAM units of study grounded in research-based practices that foster deep learning of course standards and development of STEM skills such as collaboration, communication, critical thinking, leadership, persistence, resilience, and teamwork.

**Prerequisites:** C or better in EDTE 751.

**EDTE 753 - STEAM Assessment (3 Credits)**

The history, nature, and design of I-STEAM assessments, observation and reflection on exemplars, and the development of an I-STEAM assessment framework.

**Prerequisites:** C or better in EDTE 751.

**EDTE 754 - STEAM Enacted and Evaluated (3 Credits)**

Implementation of I-STEAM lesson plans including working in cross-curricular communities of practice through structured cycles of observation, reflection, discussion, and debrief to improve I-STEAM teaching and student learning.

**Prerequisites:** C or better in EDTE 753.

**EDTE 755 - Teaching Environmental Education (3-6 Credits)**

Rationale and strategies for teaching environmental education.

**EDTE 759 - Teaching Reasoning and Inquiry Skills (3 Credits)**

Definition of and methods for teaching reasoning and inquiry skills in various educational settings. Participants develop a plan of instruction based on a study of model programs.

**EDTE 760 - Issues in Writing Instruction K-12 (6 Credits)**

Issues in the teaching of writing, with emphasis on classroom applications K-12 and program development.

**EDTE 771 - Studies and Internship I in Teaching Math-Early/Elementary Education (3 Credits)**

Instructional approaches, materials and methods for primary and elementary classrooms.

**Prerequisites:** Admission to the MAT program.

**EDTE 772 - Technology in Foreign Language Education (3 Credits)**

Introduction to technology in language teaching and the connection between language acquisition and the implementation of Internet and multimedia technology.

**Cross-listed course:** FORL 772, LING 772

**EDTE 774A - Teaching Internship (Foreign Languages) (3 Credits)**

Application of effective teaching techniques and organization of instructional settings in foreign languages for K-12.

**Prerequisites:** acceptance to the professional program in education.

**Cross-listed course:** FORL 774A

**EDTE 774B - Teaching Internship (Foreign Languages) (9 Credits)**

Application of effective teaching techniques and organization of instructional settings in foreign languages for K-12.

**Prerequisites:** EDTE 774A.

**Corequisite:** EDSE 584.

**EDTE 776 - Educating African-American Students (3 Credits)**

An analysis of historical and contemporary factors that influence the education of African American children in the US. Emphasis on the knowledge, skills and dispositions required for educators and parents to provide an effective equitable education for African American students.

**EDTE 777 - Analysis of Effective Instructional Practices (3 Credits)**

Analysis of instructional techniques and strategies effective in fostering student achievement at various levels of schooling.

**Prerequisites:** master's degree and certification.

**EDTE 778 - Teacher as Instructional and Professional Leader (3 Credits)**

Major roles of the master teacher in instructional improvement and professional development. Emphasis on analysis and integration of instructional change and professional development classroom teaching practices.

**Prerequisites:** master's degree and certification.

**EDTE 779 - Equity Pedagogies in Teacher Education (3 Credits)**

Effects of cultural diversity on instruction with emphasis on teaching strategies and programs for multicultural student populations.

**Prerequisites:** EDTE 777, master's degree and certification.

**EDTE 779A - Teaching Internship (Theatre) (3 Credits)**

Application of effective teaching techniques and organization of instructional settings in theatre for K-12.

**Prerequisites:** acceptance to the Professional Program in Education.

**EDTE 779B - Teaching Internship (Theatre) (9 Credits)**

Application of effective teaching techniques and organization of instructional settings in theatre for K-12.

**Prerequisites:** EDTE 779A.

**Corequisite:** EDSE 584.

**EDTE 780 - Field Study Preparation Seminar (3 Credits)**

Instructional planning, including evaluation and dissemination strategies related to improvements and innovations in the classroom. Emphasis is on preparation of written instructional plan for implementation in EDTE 781 Advanced Field Study of Teaching.

**EDTE 781 - Advanced Field Study of Teaching (1-6 Credits)**

Students will conduct and report results of a field study of a selected instructional innovation as specified by an implementation plan developed in EDTE 780.

**Prerequisites:** EDTE 780.

**EDTE 782A - Teaching Internship (Health) (3 Credits)**

Application of effective teaching techniques and organization of instructional settings in health for K-12.

**Prerequisites:** acceptance to the Professional Program in Education.

**Cross-listed course:** HPEB 782A

**EDTE 782B - Teaching Internship (Health) (9 Credits)**

Application of effective teaching techniques and organization of instructional settings in health for K-12.

**Prerequisites:** EDTE 782A.

**Corequisite:** EDSE 584.

**EDTE 791 - Global Education (3 Credits)**

An examination of global issues, including the concepts of interdependence and empowerment, as organizing principles in the design of instruction for internationalizing the curriculum.

**EDTE 792 - International Perspectives of Instruction (3 Credits)**

A Comparative examination of the educational and instructional processes of select nations in a variety of instructional areas.

**EDTE 793 - Development Education (3 Credits)**

An examination of the parameters of development education in select areas of the world and its implications for educators and other development workers.

**EDTE 799 - Thesis Preparation (1-9 Credits)****EDTE 811 - Developing Integrated Curricula (3 Credits)**

Theoretical foundation of an integrated curriculum and implications for current practice.

**EDTE 812 - Research in STEM Education (3 Credits)**

Critical exploration of current research and research methodological approaches in STEM education.

**EDTE 820 - Principles of STEM (Science, Technology, Engineering, and Mathematics) Integration (3 Credits)**

Exploration of pedagogical practices and methodological approaches for integrating instruction across STEM disciplines.

**EDTE 824 - Special Topics in Teaching and Learning (3 Credits)**

Intensive study of a designated topic influencing theory and/or practice in teaching and learning education.

**EDTE 827 - Principles of Engineering in STEM Education (3 Credits)**

An exploration of integrated engineering instructional practices and research into science, technology, engineering, and mathematics (STEM) pedagogical practices in order to effectively evaluate, create, and reflect on STEM education resources.

**EDTE 830 - Adolescent Literacy Learning in a Multimodal and Digital World (3 Credits)**

A critical evaluation and reflection on issues of adolescent literacy learning in an increasingly multimodal and digitally-driven world through an examination of its epistemological and theoretical foundations, as well as the questions, methods, and analyses used in empirical research.

**EDTE 835 - African and Diaspora Literacies for the Study of Teacher Education Pedagogy and Practice (3 Credits)**

The study of teacher education pedagogy and practice focused on developing doctoral students' abilities as future teacher educators to support classroom teachers' (pre-kindergarten through grade 12) knowledge of African and African Diaspora literacies and the ability to broaden curriculum in preK-12 classrooms.

**EDTE 841 - Genre Study: Academic Writing in Education (3 Credits)**

An overview of academic writing in Education as a genre. Emphasis on defining and critiquing the genre, and producing papers, articles, proposals and/or dissertations.

**Prerequisites:** Admission to a doctoral program in education.

**EDTE 850 - Internship in Teaching (1-3 Credits)**

Placement in an educational agency, clinical experience, or teacher education setting to gain supervised experience in teacher education. This course is repeatable for up to 9 credit hours. Six (6) hours of required courses in the Ph.D. in Teaching and Learning program and approval of doctoral advisor and field supervisor.

**EDTE 851 - Internship in Research in Teaching and Learning (1-3 Credits)**

Placement in teaching and/or learning setting to gain supervised research experience. This course is repeatable for up to 9 credit hours. Six (6) hours of required courses in the Ph.D. in Teaching and Learning program and approval of doctoral advisor and field supervisor. Professional division contract approved by instructor, advisor and department chair is required for undergraduate students.

**EDTE 857 - Advanced Critical Race Theory and Education (3 Credits)**

An advanced study of how Critical Race Theory is applied by researchers to investigate issues of racial justice. The study of race and racism is the primary lens of analysis in understanding disparities in educational, political, social and economic outcomes.

**Prerequisites:** EDFI 747.

**Cross-listed course:** EDFI 857

**EDTE 870 - Seminar in Instruction and Teacher Education (3 Credits)**

Major writers, issues, and research related to instruction and teacher education.

**Prerequisites:** advanced graduate standing.

**EDTE 899 - Dissertation Preparation (1-12 Credits)**