



**ELED 437.71E: Integrated Learning- Math, Science & Technology in
Field-Based Settings
COURSE SYLLABUS: Fall 2017**

Instructor: Dr. Amy Corp (Ed.D) Assistant Professor

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Office Location: Texas A&M Commerce- Navarro Campus (main office in Bain Building)

Office Hours: Monday and Tuesday, 3-5 or by appointment

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COURSE INFORMATION

Required textbook: REA: TExES Core Subjects EC-6 (291) test prep. Release date 1/20: Luis & Rosado (about \$22)

TAMUC registration at Certify Teacher (used for practicing Core Subjects and Final)

(This text is required for ELED 437, ELED 438, and RDG 448)

Required materials:

1. (1) 1- 2” inch binder and 5 count dividers
2. Copy of the TEKS or have the app on your device for quick access

Course Description:

This field-based course will focus on how EC-6 children learn and develop knowledge and skills in mathematics and science; varied instructional and assessment strategies that require high expectations and worthwhile opportunities for all students; Texas Essential Knowledge and Skills (TEKS) in mathematics and science; resources for teaching mathematics, and science in grades EC-6; and the integration of technology in mathematics and science instruction grades EC-6.

Course Objectives:

Objectives are from the Domain II, Competency 13-Competency 18 (Mathematics), Domain III, Competency 19-23 (Social Studies) and Domain IV, Competency 24-41 (Science) in the TExES Preparation CORE manual (291) – EC-6

Student Learning Outcomes:

Objectives for the course will be based upon the Texas Educator Standards so that the students may have the experiences that lead to the knowledge and skills that an entry-level educator in the field of elementary education in the area of Social Studies in Texas public school must possess.

Domain II Mathematics comprises one subject of the EC-6 Core test .In this course we will work with the Mathematics Essential Knowledge and Skills for grades K-6. The TEKS will be paired with the Educator Competencies.

Competency 14 (Mathematics Instruction- Standard 7): The teacher understands how students learn mathematical skills and uses that knowledge to plan, organize, and implement instruction and assess learning.

Competency 15 (Number Concepts and Operations – Standard 1): The teacher understands concepts related to numbers, operations and algorithms.

Competency 16 (Patterns and Algebra- Standard 2): The teacher understands concepts related to patterns, relations, functions, and algebraic reasoning.

Competency 17 (Geometry and Measurement- Standard 3): The teacher understands concepts and principles of geometry and measurement.

Competency 18 (Probability and Statistics- Standard 4): The teacher understands concepts related to probability and statistics and their applications.

Competency 19 (Mathematical Processes- Standard 5): The teacher understands mathematical processes and knows how to reason mathematically, solve mathematical problems, and make mathematical connections within and outside of mathematics.

Domain IV Science comprises one subject on the EC-6 Core. In this course we will work with the Science Essential Knowledge and Skills for grades K-6. The TEKS will be paired with the Educator Competencies.

Competency 25 (Safe and Proper Laboratory Processes): The teacher manages classroom, field and laboratory activities to ensure the safety of all students and the ethical care and treatment of organisms and specimens.

Competency 26 (Scientific Inquiry): The teacher understands the history and nature of science, process and role of scientific inquiry, and the role of inquiry in science instruction.

Competency 27 (Impact on Daily Life/Environment): The teacher understands how science affects the daily lives of students and interacts with and influences personal and societal decisions.

Competency 28 (Unifying Concepts and Processes in Science): The teacher knows unifying concepts and processes that are common to all sciences.

Competency 29 (Theory and Practice of Teaching Science): The teacher has theoretical and practical knowledge about teaching science and about how students learn science.

Competency 30 (Assessments in Science Learning): The teacher knows the varied and appropriate assessments and assessment practices to monitor science learning in laboratory, field, and classroom settings.

Competency 31 (Physical Science): The teacher understands forces and motion and their relationships.

Competency 32 (Physical Science): The teacher understands the physical and chemical properties of and changes in matter.

Competency 33 (Physical Science): The teacher understands energy and interactions between matter and energy.

Competency 34 (Physical Science): The teacher understands the energy transformations and the conservation of matter and energy.

Competency 35 (Life Science): The teacher understands the structure and function of living things.

Competency 36 (Life Science): The teacher understands reproduction and the mechanisms of heredity.

Competency 37 (Life Science): The teacher understands adaptations of organisms and theory of evolution.

Competency 38 (Life Science): The teacher understands the relationships between organisms and the environment.

Competency 39 (Earth and Space Science): The teacher understands the structure and function of earth systems.

Competency 40(Earth and Space Science): The teacher understands cycles in Earth systems.

Competency 41 (Earth and Space Science): The teacher understands the role of energy in weather and climate.

Competency 42 (Earth and Space Science): The teacher understands the characteristics of the solar system and the universe.

COURSE REQUIREMENTS

Grading: ELED 437 STEM: Attendance and Participation is required (please email or text the instructor if you will be out).

Internship: Journals, Evaluations-Mentor/Liaison	10%
STEM Binder (with strategies, observations)	5%
Book/Websites support for integration	10%
Exit tickets, in class and pre quizzes & Class Participation	15%

Math Station and Inquiry (10% each)	20%
Integrated Lesson Plans (15% each)	30%
Final Comprehensive Examination: on CertifyTeacher.org: Math/Science	10%

Professionalism:

You are preparing to enter a profession in which independent responsibility and professional behavior are expected at all times. Therefore, the same high standards of responsibility, behavior, and performance in this class are expected.

TECHNOLOGY REQUIREMENTS

- Access to the Internet
- Access to an Email Account
- Access to University Library Site Word Processor (Microsoft Word)
- Presentation Software (PowerPoint)
- USB Flash Drive (For Use at Home and University) Data
- Projector (Provided by University)

COMMUNICATION AND SUPPORT

Interaction with Instructor Statement:

Please email unless it is urgent then text. Be sure to say your class and name (ELED 437: Maggie May).

COURSE AND UNIVERSITY PROCEDURES/POLICIES

University Specific Procedures:

Attendance

It is the prerogative of the instructor to drop students from courses in which they have accrued excessive absences (three or more). However, a student wishing to drop the course should do so. Failure to do so may result in a failing grade.

Academic Honesty Policy

Texas A&M University-Commerce does not tolerate **plagiarism** and other forms of academic **dishonesty**. Conduct that violates generally accepted standards of academic honesty is defined as academic dishonesty. "Academic dishonesty" includes, but is not limited to, plagiarism (the appropriation or stealing of the ideas or words of another and passing them off as one's own), cheating on exams or other course assignments, collusion (the unauthorized collaboration with others in preparing course assignments), and abuse (destruction, defacing, or removal) of resource material.

Disciplinary action for these offenses may include any combination of the following:

1. Point deduction on an assignment.
2. Failure for an assignment.
3. A grade of zero for an assignment.

4. Failure for the course.
5. Referral to the Academic Integrity Committee or department head for further action.
6. Referral to the Dean of the College of Education and Human Services, Business and Technology, Arts and Sciences, or Graduate School as appropriate.
7. Referral to the University Discipline Committee.
8. Communication of student's behavior to the Teacher Certification Office and/or Dean of the College of Education as constituting a reason to bar student from entering into or continuing in a teacher certification program. Procedures, A 13.04, 13.12, 13.31, and 13.32

ADA Statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services
Texas A&M University-Commerce
Gee Library 132
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
[StudentDisabilityServices@tamuc-](mailto:StudentDisabilityServices@tamuc.edu)
[commerce.edu Student Disability Resources &](http://www.tamuc.edu/StudentDisabilityResources&Services)
[Services](#)

A&M-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

University Campus Concealed Carry Policy @ Commerce Campus (Not NC for sp2017)

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations. For a list of locations, please refer to (<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>) and/or consult your event organizer). Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

Navarro Policy

EFFECTIVE AUGUST 1, 2017

Navarro College is committed to providing a safe environment for students, faculty, staff, and visitors, and to respecting the right of individuals who are licensed to carry a handgun where permitted by law. Individuals who are licensed to carry may do so on campus premises except in locations and at activities prohibited by law or by this policy and procedures thereof.