

The University of Texas at Tyler

School of Education

**EDUC 4383 - Science Curriculum in the Elementary Classroom**

Instructor: Tim Kennedy

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Office Hours: TBD : Available M-F at the Discovery Science Place by appointment.

Day and Time of Course 11am-1:45pm Wednesday

Location of Course: HPR 253

**Course Catalog Description:**

This course provides a foundation for the teaching of science as it relates to the EC-6 standards as set by the State of Texas.

**Assessments:**

Course Requirements Weight (percent of final grade)

Class Participation (including attendance) 10 checkpoints 20%

Informal Science Field-trip 20%

Everyday Science Mystery Inquiry Lesson Plan 20%

Integrated Science and Literacy Teaching Quiz Checks 20%

Final Exam/Portfolio 20%

**Student Learning Outcomes:**

**This course is designed to prepare you to be successful in passing the EC-6 science content test as set by the state of Texas. To achieve this goal, you will have the opportunity to explore science as a way of knowing the world and as a tool for problem solving. We will be actively engaged in doing science as well as talking and reading about science. We will be exploring science as it relates to the formal classroom setting and the informal settings outside the classroom. We will be examining science as it relates to and can be integrated with,**

**other subject areas. We will engage in multiple test taking strategies as well as a number of practice tests. While teaching methods may be discussed from time to time, the goal of this class is test preparation.**

**Competency 001** (Lab Processes, Equipment and Safety): *The teacher understands how to manage learning activities, tools, materials, equipment and technologies to ensure the safety of all students.*

**Competency 002** (History and Nature of Science): *The teacher understands the history and nature of science, the process and role of scientific inquiry and the role of inquiry in science instruction.*

**Competency 003** (Impact of Science): *The teacher understands how science impacts the daily lives of students and interacts with and influences personal and societal decisions.*

**Competency 004** (Concepts and Processes): *The teacher knows and understands the unifying concepts and processes that are common to all sciences.*

**Competency 005** (Students as Learners and Science Instruction): *The teacher has theoretical and practical knowledge about teaching science and about how students learn science.*

**Competency 006** (Science Assessment): *The teacher knows the varied and appropriate assessments and assessment practices for monitoring science learning in laboratory, field and classroom settings.*

**Competency 007** (Forces and Motion): *The teacher understands forces and motion and their relationships.*

**Competency 008** (Physical and Chemical Properties): *The teacher understands the physical chemical properties of and changes in matter.*

**Competency 009** (Energy and Interactions): *The teacher understands energy and interactions between matter and energy.*

**Competency 010** (Energy Transformations and Conservation): *The teacher understands energy transformations and the conservation of matter and energy.*

**Competency 011** (Structure and Function of Living Things): *The teacher understands the structure and function of living things.*

**Competency 012** (Reproduction and the Mechanisms of Heredity): *The teacher understands reproduction and the mechanisms of heredity.*

**Competency 013** (Adaptations and Evolution): *The teacher understands adaptations of organisms and the theory of evolution.*

**Competency 014** (Organisms and the Environment): *The teacher understands the relationships between organisms and the environment.*

**Competency 015**(Structure and Function of Earth Systems): *The teacher understands structure and function of earth systems.*

**Competency 016** (Cycles in Earth Systems): *The teacher understands cycles in Earth systems.*

**Competency 017** (Energy and Weather and Climate): *The teacher understands the role of energy in weather and climate.*

**Competency 018** (Solar System and the Universe): *The teacher understands the characteristics of the solar system and the universe.*

### **1. Expectations:**

#### **Class Participation:**

*This course is designed as a face-to-face format with an occasional online meeting date. These dates are flexible and may be adjusted to accommodate course objectives. You should assume we are meeting every week unless you are notified by your instructor of an online meeting.*

This course utilizes small-group learning activities, whole-class discussions, demonstrations, and outside-of-school activities to present science content to will assist in successful passing of the EC-6 content test. The outside-of-class experiences include working with small groups of students, completing assignments, and visiting field trip sites that would be useful in reinforcement of science content knowledge. Regular attendance is very important since much of what we have to learn will be experienced in the college classroom. Face-to-face classes begin promptly at the scheduled class time. Please e-mail me before class if you plan on being absent. Please allow up to 48 hours for response to an email. Field trips may be rescheduled or canceled due to weather.

### **Field Trips**

#### **Discovery Science Place Experience (Fieldtrip):**

**You will be expected to participate in a DSP Fieldtrip. The experience will occur during class hours.**

**Additional Required Supplies: N/A**

#### **Related Required Readings**

Texas Education Agency (TEKS)

– <http://ritter.tea.state.tx.us/rules/tac/chapter112/ch112a.html>

The Texas Higher Education Coordinating Board College and Career Readiness Standards –

College and Career Readiness Standards

<http://www.thecb.state.tx.us/files/dmfile/CCRS081009FINALUTRevisions.pdf>

Class Web Sites

<http://www.BIE.org>

<http://www.Learner.org>

<http://www.edutopia.org>  
<http://essea.strategies.org/>  
<http://www.globe.gov>  
<https://www.teachingchannel.org/>  
<http://www.teachertube.com/>

**Additional selected readings will be provided by the instructor or through the NSTA Learning Center**

**Course Policies and Guidelines:**

Mobile Devices (e.g. iPads, Cell Phones)/Laptops:

All electronic devices need to be set to silent mode during class time. Devices may be used for class activities ONLY.

Laptops will enhance your class experience but should be closed unless needed during the activity.

Assignment Submission:

For written assignments a “page” is defined as:

- 8½” x 11” paper
- Times New Roman or Arial 12-point font
- Double-spaced (unless otherwise directed)
- 1-inch margin on all sides.
- Put page numbers on the top right-hand side.
- Put your name, title of the assignment and date submitted on your paper.

**Papers that do not meet these specifications will not be accepted.** With respect to format and style, your paper should conform to the 6th edition APA Manual.

**Late Work:** Assignments and projects are expected to be handed in on time. **An assignment will be considered late if it is not turned in the day it is due.** Assignments are expected to be dropped in the assignment box on Canvas even if you are not in class. You may turn in your assignment early. Late assignment policy was referenced in the grading session. Assignments are posted on the course syllabus. Due dates will be announced in class.

**Attendance:** This course is part of your professional practice. You are expected to attend every face-to-face class meeting. Course objectives and performance outcomes cannot be met unless you attend class and participate in class activities. If you are absent for an extended period of time, you should make arrangements to explore options such as retaking the course or taking an incomplete grade. If you miss more than two in-class periods, you will need to make an appointment with the instructor for a possible Disposition Conference. If you are going to be absent for an exam, you must contact the instructor on or before the scheduled time the exam is to be given.

You are responsible for all information given in class, online, and in the syllabus.

Read assigned articles prior to each class meeting.

You are responsible for this information on tests as well as during class participation. Criteria for all assignments will be available in class and posted online unless otherwise notified by the instructor.

Canvas– You are responsible for enrolling on Canvas prior to the second class meeting and monitoring the course site regularly for course information. Assignments will be turned in through the assignment tab in Canvas.

A link to the NSTA Learning Center will be available within the Canvas environment. Safe Assign is a tool that will be used to check a document for plagiarism. The tool provides feedback as to whether

or not the text in a document is a close match with other documents on the Internet, in journal databases, and submissions to Canvas. If a student is caught plagiarizing, a grade of zero will be given as well as a disposition for cheating.

**Dispositions - All students in the UT Tyler Teacher Preparation Program must adhere to the professional behaviors outlined in the UT Tyler School of Education Dispositions. These dispositions are listed at the following website: <http://www.uttyler.edu/education/documents/Dispositions.pdf>**

## UNIVERSITY POLICIES

### UT Tyler Honor Code

Every member of the UT Tyler community joins together to embrace: Honor and integrity that will not allow me to lie, cheat, or steal, nor to accept the actions of those who do.

For a full list of university policies including information related to the topics listed below, click [here](#).

- Students Rights and Responsibilities
- Campus Carry
- Tobacco-Free University
- Grade Replacement/Forgiveness and Census Date Policies
- State-Mandated Course Drop Policy
- Disability Services
- Student Absence due to Religious Observance
- Student Absence for University-Sponsored Events and Activities
- Social Security and FERPA Statement
- Emergency Exits and Evacuation
- Student Standards of Academic Conduct

### UT Tyler Resources for Students:

- UT Tyler Writing Center (903.565.5995), [writingcenter@uttyler.edu](mailto:writingcenter@uttyler.edu), <http://www.uttyler.edu/writingcenter/>

- UT Tyler Tutoring Center (903.565.5964), [tutoring@uttyler.edu](mailto:tutoring@uttyler.edu), <https://www.uttyler.edu/tutoring/>
- The Mathematics Learning Center, RBN 4021, This is the open access computer lab for math students, with tutors on duty to assist students who are enrolled in early-career courses.
- UT Tyler Counseling Center (903.566.7254) <https://www.uttyler.edu/counseling/>

### [University Guidelines, Links and Policies](#)

#### **COLLEGE OF EDUCATION AND PSYCHOLOGY (CEP) VISION AND MISSION**

**Vision:** The College of Education and Psychology is nationally recognized and respected for its academic programs and opportunities. It is a center of academic excellence, scholarly inquiry, and public service. The College prepares leaders to meet the critical challenges of the 21<sup>st</sup> Century through productive contributions to local and global communities and toward individual and cultural equity.

**Mission:** The mission of the College of Education and Psychology is to provide a positive environment that fosters the acquisition of knowledge and skills. The mission is individually and collectively realized through a community of scholars that contributes to knowledge through scholarly inquiry; organizes knowledge for application, understanding and communication; and provides leadership and service. We affirm and promote global perspectives that value individual and cultural diversity to enhance learning, service, and scholarship.

#### **UT TYLER'S SCHOOL OF EDUCATION STANDARDS FOR EDUCATOR PREPARATION PROGRAMS**

**[Texas Education Standards](#):** The School of Education are committed to teaching and implementing the Texas Educator Standards at the highest level. The School of Education faculty use the Texas Education Standards, along with the Interstate New Teacher Assessment and Support Consortium (InTASC) standards used by educator preparation programs throughout the United States.

The list of [Texas Education Standards](#) can be accessed [here](#).

**Access the [Code of Ethics and Standard Practices for Texas Educators](#).**