



PHYS 371 Science and Math Education Theory and Practice

Cross-listed with **MATH 371** and **CHEM 371**

COURSE SYLLABUS: Fall 2025

INSTRUCTOR INFORMATION

Instructor: Clay Stanfield, Adjunct Faculty in Physics and Astronomy
Office Location: EDS 218 or STC 105A
Office Hours: Virtual office hour on D2L or by appointment by email
Office Phone: 903-886-8757
Office Fax: 903-886-5480 (Department of Physics and Astronomy)
University Email Address: clay.stanfield@etamu.edu
Preferred Form of Communication: email
Communication Response Time: within 48 hours

COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings

Textbook(s) Required: There is no required textbook. Readings provided throughout the course.

Readings will be posted on Perusall

Course Description

University Catalogue Description

Learning theory and teaching practices for science learning assistants. Topics include questioning strategies, conceptual development, formative assessment, argumentation, metacognition, and nature of science.

Additional Course Description

This course will provide you with support and community to improve your experience as a learning assistant. You will have the opportunity to reflect on your teaching experience, discuss with other learning assistants, and read relevant science education literature that will inform your teaching.

The syllabus/schedule are subject to change.

Student Learning Outcomes

1. Students will be able to reflect on their teaching practice.
2. Students will be able to explain findings from science education literature.
3. Students will be able to apply findings from science education literature to their teaching.

COURSE REQUIREMENTS

Minimal Technical Skills Needed

Students should be able to use myLeo Online and Microsoft Word.

Instructional Methods

Readings and brief lectures introduce topics. Students are encouraged to ask questions during the lecture. The primary instructional method for this course will be discussion, both live and asynchronously using Perusall. Students will reflect on their experiences through prompted writing assignments and class discussion.

Student Responsibilities or Tips for Success in the Course

Students are expected to read assigned articles, participate in all discussions (virtual meetings and discussion boards), and complete all homework assignments. Students are to be aware of all deadlines and ask questions when directions are unclear.

GRADING

Final grades in this course based on the following scale:

A = 90%-100%

B = 80%-89%

C = 70%-79%

D = 60%-69%

F = 59% or Below

Grades will be based on 3 components:

Teaching reflections	40%
Reading reflections	40%
Discussion participation	20%

Assessments

Teaching reflections: 4 teaching reflections will be assigned throughout the semester.

Reading reflections: 4 reading reflections will be assigned throughout the semester on Persuall.

Discussion participation: Group and/or whole class discussions will take place in class, every week.

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Guidelines for the teaching reflections, reading reflections, and discussion participation grading are provided in a separate document.

***Note: The assignments and points are subject to change due to the needs of the course

TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by East Texas A&M University have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

LMS Requirements:

<https://community.brightspace.com/s/article/Brightspace-Platform-Requirements>

LMS Browser Support:

https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm

ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@etamu.edu

Note: Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a ETAMU campus open computer lab, etc.

COMMUNICATION AND SUPPORT

If you have any questions or are having difficulties with the course material, please contact your instructor.

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

<https://community.brightspace.com/support/s/contactsupport>

The syllabus/schedule are subject to change.

Interaction with Instructor Statement

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

University Specific Procedures

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the Student Guidebook.

<https://inside.etamu.edu/admissions/onestopshop/undergraduateAdmissions/studentGuidebook.aspx>

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum:

<https://www.britannica.com/topic/netiquette>

ETAMU Attendance

For more information about the attendance policy please visit the [Attendance](#) webpage and [Procedures 13.99.99.R0.01](#)

<https://inside.etamu.edu/admissions/registrar/generalInformation/attendance.aspx>

Academic Integrity

Students at East Texas A&M University are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

<https://inside.etamu.edu/aboutus/policiesproceduresstandardsstatements/rulesprocedures/13students/graduate/13.99.99.R0.10.pdf>

<https://inside.etamu.edu/academics/graduateSchool/faculty/GraduateStudentAcademicDishonestyForm.pdf>

Students with Disabilities-- 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

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East Texas A&M University
Velma K. Waters Library Rm 162
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
Email: studentdisabilityservices@etamu.edu

Website: [Student Disability Services](#)

<https://www.etamu.edu/student-disability-services/>

Nondiscrimination Notice

East Texas A&M University 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.

Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in East Texas A&M University 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 ETAMU Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the [Carrying Concealed Handguns On Campus](#) document and/or consult your event organizer.

Web url:

<http://www.etamu.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all ETAMU campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

East Texas A&M University Supports Students' Mental Health

The Counseling Center at ETAMU, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit www.etamu.edu/counsel

Mental Health and Well-Being

The university aims to provide students with essential knowledge and tools to understand and support mental health. As part of our commitment to your well-being, we offer access to Telus Health, a service available 24/7/365 via chat, phone, or

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webinar. Scan the QR code to download the app and explore the resources available to you for guidance and support whenever you need it.



<http://telusproduction.com/app/5108.html>

AI use policy [Draft 2, May 25, 2023]

East Texas A&M University acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course.

Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism).

Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructors' guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.

In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

13.99.99.R0.03 Undergraduate Academic Dishonesty

13.99.99.R0.10 Graduate Student Academic Dishonesty

COURSE OUTLINE / CALENDAR

Week	Date (Mon)	Event
2	1-Sep	Teaching HW #1 Assigned
3	8-Sep	Teaching HW #1 Due
3	8-Sep	Reading HW #1 Assigned
4	15-Sep	Reading HW #1 Due
5	22-Sep	Teaching HW #2 Assigned
6	29-Sep	Teaching HW #2 Due
6	29-Sep	Reading HW #2 Assigned
7	6-Oct	Reading HW #2 Due

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8	13-Oct	Reading HW #3 Assigned
9	20-Oct	Reading HW #3 Due
10	27-Oct	Teaching HW #3 Assigned
11	3-Nov	Teaching HW #3 Due
12	10-Nov	Reading HW #4 Assigned
13	17-Nov	Reading HW #4 Due
13	17-Nov	Teaching HW #4 Assigned
15	1-Dec	Teaching HW #4 Due

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