



IS 352 Science Inquiry II for Pre-service Educators

COURSE SYLLABUS: Fall 2026

INSTRUCTOR INFORMATION

Instructor: Dr. Robynne Lock

Office Location: STC 238

Office Hours: TBD

University Email Address: robynne.lock@etamu.edu

Preferred Form of Communication: Email

Communication Response Time: 48 hours

COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings

Next Gen PET Physical Changes (Studio style) (978-1-68231-351-0)

Next Gen PET Chemical Reactions (Studio style) (978-1-68231-352-7)

Course Description

Science topics and themes are chosen to emphasize broad concepts highlighted in the Texas and National Science Standards. Topics include fundamental physical and chemical processes such as the chemistry of the environment, macromolecules of life, systems in nature, and the nature of scientific inquiry. The course will be taught using an inquiry based method, modeling instructional techniques proven effective by current educational research. This course is designed for interdisciplinary majors. It will not count towards a major in the sciences.

Student Learning Outcomes

1. Students will be able to determine whether a change is physical or chemical.
2. Students will be able to apply the small particle model to physical changes and chemical reactions.
3. Students will be able to develop models from observations of physical systems.
4. Students will be able to develop science lessons appropriate for use in K-8 classrooms and identify which TEKS they satisfy.

The syllabus/schedule are subject to change.

COURSE REQUIREMENTS

Minimal Technical Skills Needed

Students should be able to use D2L (myLeo Online), view videos on YouTube, use a calculator, use Excel and/or a graphing calculator or app, convert work to a pdf, take screenshots, use a variety of online communication methods such as Zoom, D2L, and email.

Instructional Methods

Instructional Methods

The primary instructional method for this course will be guided inquiry. Students will complete activities designed to help them discover physical laws and create scientific models. Activities will be completed in groups of 3-4. The instructor will assign groups. Groups will be changed 1-2 times during the semester

Student Responsibilities or Tips for Success in the Course

- Come to every single class (unless you are sick).
- Email me if you have to miss class.
- Do all of your homework.
- Write summaries of what you learned in your science journal at the end of every class.
- Students should keep handwritten notes. Handwriting helps your brain process information. Organize your notes so that information is easy for you to find when you need it.
- Learn about learning. The most important thing you can learn in college is how to learn well. You will need to learn new skills and knowledge throughout your whole life.
- The most important thing you can do is to **ask for help** when you need it. **I love when students come to my office!** Then I can help you, and you are also helping me become a better teacher.

GRADING

What do grades mean? Why do we grade? What are grades used for?

You have probably spent over a decade in an education system in which you are regularly assigned grades. These grades may reflect completion of assignments, timeliness, understanding of the material at a snapshot in time, a difficult time in your life, how many demands there are on your time, and many other things. Grades, in theory, should have been used to determine your readiness for college and used in college admissions. Grades, in theory, could be used by potential employers to determine if you can perform well in their jobs. But do grades actually predict your success in college or in life, however you may define success? As it turns out, grades are surprisingly poor predictors of “success” however you may define it (S.D. Blum, *Ungrading: Why rating students undermines learning (and what to do instead)*, Morgantown: West Virginia University Press, 2020).

College is supposed to be about learning.

It's important to know that college is more than gaining skills that are obviously applicable to any given job. The most valuable thing you can learn in your class is *how to learn and to think critically*. Learning should be fun! 😊

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How can we return the focus of our class to learning instead of stressing about grades?

I use specifications-based grading. Your grade will be determined by how many assignments you complete at a satisfactory level. The most important aspect of this system is the opportunity for revisions. When I develop class activities, I revise them after I see what actually happens in class. You will be able to revise your work. I hope the opportunity to revise will also reduce your stress so that you can focus more on learning.

Grading scale

In this course, we will be using specifications-based grading. This is a form of alternative grading. In specs-based grading, the focus is not on assigning specific number grades to assignments and calculating averages, but rather completing specific assignments **at sufficient quality**. If your work is not at sufficient quality, you will have the opportunity to revise. I expect anybody who makes a good faith effort throughout the course to be able to obtain a B. The grade scheme is as follows:

Grade of A:

- Fulfill all the requirements for a B (see below)
- Complete 3 out of 4 projects

Grade of B:

- Complete 17 or more in-class group labs
- Complete 25 or more science journal entries
- Create 3 assessments
- Complete 10 or more homework assignments
- Complete 2 out of 4 projects

Grade of C:

- Complete 14 or more in-class group labs
- Complete 22 or more science journal entries
- Create 2 assessments
- Complete 8 or more homework assignments
- Complete 1 out of 4 projects

Grade of D:

- Complete 11 or more in-class group labs
- Complete 19 or more science journal entries
- Create 1 assessment
- Complete 6 or more homework assignments
- Complete no projects

Grade of F:

- Does not meet the minimum requirements for a D

Exceptions: I am human, and I know you are too. If there are extenuating circumstances that you believe have prevented the grading system from properly reflecting your understanding and effort, please contact me, and we can talk about it. I can also be flexible with deadlines if needed.

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Details about each type of assignment follow:

In-class group activities: We will complete labs and science content activities in class as group work. If you have an excused absence, you will have the opportunity to make up the work you missed.

Science journal: You will keep a journal of what you learned in class each day and what you still need to learn. Your journal will be collected and graded periodically. Details of the requirements for your science journal will be provided in a separate document. You should write in your science journal every single class day.

Assessments: You will create assessments (exams/quizzes/projects) based on the course material we have learned so far 3 times. Details of the requirements for this assignment will be provided in a separate document.

Homework: This includes science content homework and surveys. Homework related to projects does not count towards these homeworks

Lesson planning project: You will have the opportunity to create 2 lesson plans during the semester. Details about this project will be included in a separate document.

Kids' thoughts and experiences on science project: You will have the opportunity to do 2 projects in which you work with kids, observe kids, or talk to kids about science. Details of the requirements for this assignment will be provided in a separate document.

Course Outline/Calendar

Classes begin Thursday, 8/20.

Content schedule

Weeks 0-3 (8/20-9/13)	Physical changes Part I: Gas laws
Weeks 4-8 (9/14-10/18)	Physical changes Part II: Liquids, solids, and phase changes
Weeks 9-14 (10/19-11/29)	Chemical reactions
Weeks 15 (11/30-12/4)	Summarizing and connections
Finals week (12/7)	

Schedule is tentative and may be adjusted depending on the pace at which we cover material.

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

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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

Zoom Video Conferencing Tool

https://inside.tamuc.edu/campuslife/CampusServices/CITESupportCenter/Zoom_Account.aspx?source=universalmenu

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 TAMUC 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>

STUDENT RESPONSIBILITIES FOR COURSE

CWID and Password

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.

Technology-Related Issues

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

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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.

TECHNOLOGY REQUIREMENTS AND SUPPORT

Minimal Technical Skills Needed

Students will need reliable computer and internet access for this course. Students must be able to effectively use myLeo email, myLeo Online D2L, and Microsoft Office.

Learning Management System (LMS) – D2L

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 the technical requirements:

- View the [Learning Management System Requirements Webpage](#).
- Learn more on the [LMS Browser Support Webpage](#).

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 on the [Brightspace Support Webpage](#).

COMMUNICATION AND SUPPORT

Interaction with Instructor Statement

If you have any questions or are having difficulties with the course material, please contact your instructor. Correspondence will always be through university email (your “myLeo” mail) and announcements in myLeo online (D2L). You will not RECEIVE email through D2L, so be sure to check your ETAMU email for communication. Students are encouraged to check university email daily.

Include the Following in Emails with Instructor:

- Course name and subject in the subject line
- Salutation (Good afternoon, Dr. Jackson)
- Proper email etiquette (no “text” emails – use proper grammar and punctuation)

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- Student name and CWID after the body of the email (possibly add to student signature on email)
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COURSE AND UNIVERSITY 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.

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 online in the [Student Guidebook](#).

Students should also consult the [Rules of Netiquette Webpage](#) for more information regarding how to interact with students in an online forum.

ETAMU Attendance

For more information about the attendance policy, please view the [Attendance Webpage](#) and the [Class Attendance Policy](#).

Academic Integrity

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

[Undergraduate Academic Dishonesty University Procedure 13.99.99.R0.03](#)

[Undergraduate Student Academic Dishonesty Form](#)

[Graduate Student Academic Dishonesty University Procedure 13.99.99.R0.10](#)

[Graduate Student Academic Dishonesty Form](#)

Use of Artificial Intelligence

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.

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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

Instructor comment: If you are using AI to do homework, understand material, look up facts, etc., you need to learn to do so in a way that aids in your learning rather than in just getting work done. I'm still trying to figure out how to help you do this as the technology keeps involving.

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

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: [Office of 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

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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.

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

East Texas A&M Supports Students' Mental Health – Counseling Services

The Counseling Center at East Texas A&M University, 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.tamuc.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 webinar. Scan the QR code to download the app and explore the resources available to you for guidance and support whenever you need it.



As an Institutional Member of the National Association of Schools of Music, East Texas State A&M University supports the Association's commitment to student health and wellness. The following web address provides links to information for resources related to physical and mental well-being, as well as assists in offering preventative measures that students can take to avoid serious and/or chronic conditions: [Musician Health and Safety - East Texas A&M University](#)

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