



20144.01E, IS 351: Science Inquiry I for Pre-Service Educators

COURSE SYLLABUS: Spring 2026

INSTRUCTOR INFORMATION

Instructor: Dr. Cheri Davis

Office Location: McFarland Science Building, Suite 148

Office Hours: Tuesday-Thursday 9:30-10:30 am

Office Phone: 903 468 8650

University Email Address: Cheri.Davis@etamu.edu

Preferred Form of Communication: email please

Communication Response Time: 24 hours or less during the week (usually a few hours)

COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings

Textbook(s) Required: IS 351 Lab Manual, only available at the campus bookstore, these are custom printed for this course therefore not available elsewhere. You will not be able to purchase a used book. Confirm that you have the correct manual. You will need the manual the first week of classes. **ISBN: 978-1-64565-153-6**

Advanced
Integrated
Science I
351



Software Required: regular Office (or equal): No Google documents!

Course Description

Science topics and themes are chosen to emphasize broad concepts highlighted in the Texas and National Science Standards. Topics will include conservation laws, systems in nature, the nature of scientific inquiry and presentation of scientific information. The course will be taught by an inquiry-based method, modeling instructional techniques proven effective by current educational research. This course is designed for interdisciplinary majors. It will not count toward a major or minor in the sciences.

The syllabus/schedule are subject to change.

Student Learning Outcomes (Should be measurable; observable; use action verbs)

1. Students will gain a better pedagogical understanding.
 - Students will identify and practice different teaching methods.
 - Students will identify different learning styles.
 - Students will be able to determine how teaching and learning styles compliment or support material in various situations.
 - Students will better understand the NGSS/TEKs alignment and how that process applies to content delivery.
2. Students will be better prepared to achieve success completing the TExES exam.
 - Students will understand the basic methodology of science through experimentation.
 - Students will understand the meaning, application, and concepts of force and motion: types of forces, Newton's laws of motion, energy, conservation of energy, waves, astronomy basics, and historical contributors such as Aristotle, Galileo, and Newton.
3. Students will assist the instructor through cooperative learning to provide interesting and practical science knowledge and skills for taking instruction into the classroom and everyday life.
 - Students will learn and practice student centered instruction.
 - Students will develop a plan for laboratory safety and classroom management through daily practice and techniques.

COURSE REQUIREMENTS

Minimal Technical Skills Needed

D2L will be used for grades and as a venue/repository of review material. All work to be graded will be printed by the student and turned in to the professor or teaching assistant. Students should have basic understanding and ability to manage fundamental computer skills such as MS Word, Excel, & PowerPoint (or similar).

Instructional Methods

This class will meet in STC 135 from 12:30-1:45, Tuesdays and Thursdays. It is important that we start class **on time** in order to complete the hands-on labs; please practice professionalism and make it to class on time.

The instructional methods for this course will vary with the topic being explored. Students will be attentive through any lecture, providing the instructor/presenter their full attention. Questions are welcomed and encouraged during lecture; however, students will not engage in "personal discussions" thus disrupting class.

The syllabus/schedule are subject to change.

Students will be working in groups to complete labs throughout the semester. This is a hands-on methods course. It is imperative that **students do NOT miss a class** as their group will not have each member's contribution. Any **missed classes will not be made up**. For clarification purposes, there are NO make-up labs. This includes any lab section of a test.

Emailing, turning in work through D2L or any other digital means will not be accepted as work completed. ONLY printed work will be accepted as complete and graded, no exceptions made. Students may not email work to the professor, teaching assistant, or peers to print on their behalf, each person is responsible for printing their work and turning in on time as assigned. Make arrangements in advance for your printing needs. There are printers in the library and you can use them, be aware of the library policies and charges. Do not wait until last minute to print work.

Student Responsibilities or Tips for Success in the Course

This class requires regular attendance as much of the content is delivered in a hands-on format that will build from one lesson to the next. If you miss a class, you may miss the skills needed for the next and future lessons. Missing even one class can cause a significant gap in your learning and understanding. The best thing you can do to be successful in this class is to attend each and every class, be on time, and do your best work the first time on time.

GRADING

Final grades in this course will be based on the following scale:

- A = 90%-100%
- B = 80%-89%
- C = 70%-79%
- D = 60%-69%
- F = 59% or Below

Weights of the assessments in the calculation of the final letter grade.

Assignments	55%	<u>Tentative Exam Dates</u>
Midterm Exam	30%	1) February 26, Unit 1
<u>Final Exam</u>	<u>15%</u>	2) April 9, Unit 2
TOTAL	100%	3) Final Exam, May 7, 10:30-12:30, Unit 3

Assessments

Daily labs-There will be no make-up labs for missed classes. If you are absent on a day we take a grade for a lab, you will receive a grade of zero; there is no way to make up work missed. Daily assignments and labs are 55% of the course grade. One grade will be dropped at the end of the semester, this is generally your lowest daily grade. Extra credit is not offered for this course.

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Lectures-There will be a few lectures and some mini-lectures. If you miss notes, I recommend asking a couple of people for a copy of their notes so that you have a good coverage of the material missed. You will be responsible for all material at the time of the test. My personal teaching notes are not in a format to share.

Exams-If you know you are going to miss an exam, please **notify me in writing**, via email, to *make arrangements in advance to take the test early*. If you miss an exam, the make-up must be scheduled and completed before the graded exams are returned to the class, generally the next class day. For example, if the test is given on Tuesday, they should be returned to the class on the following class time, which will be in two days on Thursday, allowing Wednesday for the makeup exam to be completed.

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 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.

The syllabus/schedule are subject to change.

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>

Interaction with Instructor Statement

You are invited to take advantage of office hours. Those times are set aside weekly to meet with students. If the hours scheduled do not work with your schedule, please email and schedule an appointment. If you have a quick question, you are always welcome to stop by the office and if I am available, I'm happy to help.

If you know that you have an event that is going to require missing a class, please send this to me through email so that I can note it on my schedule. cheri.davis@etamu.edu

I will post any changes to the schedule in D2L in the course announcements. Please check these regularly or even better, set the announcements to email you as they are posted.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

Course Specific Policies

Violation of any class policies will be reflected on the student's final grade for the course.

1. Be professional. You are completing your degree and preparing for the classroom as the facilitator of instruction. Your attitude should reflect your professionalism, which should include the remaining class policies.
2. Be here. Absences will result in lowering your overall grade, if you are not in class, you will miss important content. Much of the material covered in class builds from previous material so missing a class means a gap in content. If you know in advance that you are going to miss a class, please inform me in writing **via email**. If you know in advance that you are going to miss an exam, make arrangements with me to take the test early. Tests are handed back the very next class so you will only have one day to make up an exam.
3. Be on time. It is important that you arrive to class on time; tardiness is a direct reflection of your professional attitude. This class meets T/R 12:30-1:45 pm, STC #135. This is a very short amount of time and must be utilized effectively. Tardiness is a bad habit, very impolite, and unprofessional.

If we are working in the planetarium; due to dark conditions the doors will close for safety. If the doors are closed, they will not be re-opened for late entry as the light will disturb class in session.

The syllabus/schedule are subject to change.

As a teacher, you will be expected to turn in grades on time as well as meeting other deadlines; again, be professional. Absences are not considered a “good reason” for turning in late assignments. All due dates are given in advance; take them seriously as **late work is not accepted**. You will email your assignments by the time they are due, the printed work turned in is what will be graded. This assures that the work is submitted on time.

4. Be courteous. Cell phones will be turned off; failure to comply will result in the student being excused from class and receiving a zero for the daily assignments. I will give you my undivided attention and I expect the same of each student. For clarity-**I do not want to see your phones, tablets, computers, or any other device.**

5. No electronic devices (this includes use of a computer/tablet/iPad/recording device) will be permitted during class unless arrangements are made in advance and approved by me. I have a set of new computers that will be supplied for any needed assignments during class.

6. This class meets in a lab, which means **food is prohibited**. Drinks are okay as long as they are in an enclosed covered container (must have a lid). *When we meet in the planetarium, drinks will not be permitted.*

Course Specific Procedures

1. Students are required to take all exams and must be completed before the exams are returned to the class. Exams are 45% of your grade; 15% each (x's 3). Exams are not cumulative however some of the material may spill over into the content for the next test.

2. Students will be responsible for their learning and participate in all class activities with a positive, constructive attitude. Professionalism will be practiced.

3. Students will have all homework completed upon entering class. **Late work is not accepted** so do not be late to class. Students will not attempt to work on any material for another class. You will email your assignments by the time they are due, the printed work turned in is what will be graded. This assures that the work is submitted on time.

4. Students will be uploading some assignments in the course shell. Other assignments will require printing materials for use in class. It is the student's responsibility to make arrangements to print. **All written work should be printed (not handwritten) and include citations.** Always cite work, we do not want to practice plagiarism.

5. All homework, including a few in-class assignments, will be printed by the student and turned in for a grade. Google (online) documents will not be accepted. *Students will be responsible for their own printing needs.* Emailing material for the professor (or TA) to print is **not** an option.

6. Students will participate and contribute equally in-group activities. Failure to comply will be reflected in the non-compliant student's grade and will not be a detriment to the remaining group members. All collaborative assignments will have an individual grade for each student dependent upon their contribution, collaboration, content, and professionalism. If there is a conflict within a group, please see me.

The syllabus/schedule are subject to change.

7. Google documents are not compatible with our learning system. Providing a link for Google documents is not acceptable. Please save and upload all documents as a Word document or pdf to reduce compatibility issues.

8. Students are welcome to visit during office hours, or make an appointment if the posted hours do not fit the need. If you are struggling, seek assistance early, I am here to help you learn. **I am here for YOU!**

ALL students have the option to earn an A for this class, however extra credit is not usually offered. Although I have the right to drop a student for excessive absences; I won't do so. Students have the right to earn an F if they decide to not complete the work. I do not offer or approve drops/incompletes for poor effort. Remember you are training to teach which will affect the next generation of students.

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.tamuc.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>

TAMUC Attendance

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

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

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

The syllabus/schedule are subject to change.

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: [Student Disability Services](#)

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

Nondiscrimination Notice

ETAMU 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 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 the [Carrying Concealed Handguns On Campus](#) document and/or consult your event organizer.

Web url:

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

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.

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ETAMU 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 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]

ETAMU 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

The syllabus/schedule are subject to change.

Department or Accrediting Agency

Required Content

Science

Standard I. The science teacher manages classroom, field, and laboratory activities to ensure the safety of all students and the ethical care and treatment of organisms and specimens.

Standard II. The science teacher understands the correct use of tools, materials, equipment, and technologies.

Standard III. The science teacher understands the process of scientific inquiry and its role in science instruction.

Standard IV. The science teacher has theoretical and practical knowledge about teaching science and about how students learn science.

Standard V. The science teacher knows the varied and appropriate assessments and assessment practices to monitor science learning.

Standard VI. The science teacher understands the history and nature of science

Standard VII. The science teacher understands how science affects the daily lives of students and how science interacts with and influences personal and societal decisions.

Standard VIII. The science teacher knows and understands the science content appropriate to teach the statewide curriculum (Texas Essential Knowledge and Skills [TEKS]) in physical science.

Standard X. The science teacher knows and understands the science content appropriate to teach the statewide curriculum (Texas Essential Knowledge and Skills [TEKS]) in Earth and space science.

Standard XI. The science teacher knows unifying concepts and processes that are common to all sciences.

https://tea.texas.gov/sites/default/files/EC_6_Science_Final%283%29_0.pdf

https://tea.texas.gov/sites/default/files/4-8sci_0.pdf

https://www.tx.nesinc.com/content/docs/TX391_CoreSubjects_PrepManual.pdf (pp 27-33)

https://www.tx.nesinc.com/Content/StudyGuide/TX_SG_obj_116.htm#standards

In science, many of the concepts work in conjunction with others. The weekly outline is general and not specific. We will work at a pace needed for student success.

COURSE OUTLINE / CALENDAR

Week Topic

1 Syllabus, expectations, pedagogy, experiments

Unit 1

2 Scientific theory & processes, teaching/learning methods

3-7 Kinematics, force, motion, energy (Test 1)

Unit 2

8-11 Free-body diagrams, waves, light, heat (Test 2)

Unit 3

11-15 Astronomy, Earth science (test 3/final)

16 Final Exam

The syllabus/schedule are subject to change.