IS 352 71E Science Inquiry II 202620

COURSE SYLLABUS: SPRING 2026

INSTRUCTOR INFORMATION

Instructor: Melinda Ludwig
Office Location: No office. Instructor will be available in Room 205 from 4:00 – 5:00 p.m. on Tuesdays.
Office Hours: N/A
Office Phone: N/A
Office Fax: N/A
University Email Address: Melinda.Ludwig@etamu.edu
Preferred Form of Communication: E-mail
Communication Response Time: As soon as I see it.

COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings

Textbook(s) Required:

1. Reviewing Science (2nd Ed.) – Cohen, Deutsch, Sorrentino (2009)
2. Aquatic WILD Manual (Blue Cover)

**(For Navarro College Partnership students, both books are available in the Navarro College bookstore. A used copy of Reviewing Science is acceptable, but the current copy (2013) of Aquatic WILD is required.

Software Required: N/A

Optional Texts and/or Materials: N/A

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Course Description

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

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 toward a major in the sciences.

1. Through participation in the inquiry science activities, students will gain experience and knowledge that will help them in preparation for the science section of the Generalist exam.
2. Students will gain practical and interesting science knowledge and skills appropriate for science instruction in grades Pre-K through 8.
3. Students will increase their own science literacy by participating in the inquiry science activities.
4. Students will gain experience in a variety of laboratory techniques, which are used as part of teaching science as inquiry.

COURSE REQUIREMENTS

Minimal Technical Skills Needed

Familiarity with standard laboratory equipment and procedures.
Fine motor skills for handling some types of laboratory equipment.
General computer skills and ability to use the internet, when required.

Instructional Methods

Some pre-lab discussions, interactions during investigations involving instructor/student question/answer periods, handling a variety of laboratory equipment and materials (with emphasis on lab safety), opportunities to observe a variety of specimens that may complement the investigation, student groups interacting with each other to improve in-person communication skills.

Student Responsibilities or Tips for Success in the Course

1. Plan to attend each class meeting. Participate in the assignments for the class.
2. Reading assignments are generally reasonable in length. Set aside some time to read.

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3. Turn written assignments in on time. Points may be removed from the grade for late work.
4. Pay attention in class. ASK QUESTIONS! Get along with students in your group.

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

Total points corresponding to the final letter grades
A = 451- 500 Points
B = 401- 450 Points
C = 351- 400 Points
D = 301- 350 Points
F = 300 & > Points

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

Assignments	20%
Discussions	20%
Midterm Exam	30%
Final Exam	30%
TOTAL	100%

Assessments

There will be three topic-based tests during the semester and a comprehensive final exam. Topic-based tests will occur every 3-4 weeks and will cover the investigations and other activities completed during those weeks. Each topic-based test will have a lab portion done by the entire group and an individual portion, based on reading assignments, homework, out of class projects, etc., that each student completes. Lab portion is worth 40 points and individual portion is worth 60 points. The final exam could have the same format, or it may consist of just hands-on investigations in the manner of a lab practical exam.

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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

Zoom Virtual Classroom Requirements:
https://support.zoom.us/hc/en-us/articles/201362023-Zoom-system-requirements-Windows-macOS-Linux

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@tamuc.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.

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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

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.tamuc.edu/admissions/registrar/documents/studentGuidebook.pdf.

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 webpages below.

Attendance,

https://inside.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx

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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:

Undergraduate Students Academic Integrity Policy and Form

Undergraduate Academic Dishonesty 13.99.99.R0.03

https://inside.tamuc.edu/aboutus/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf

Undergraduate Student Academic Dishonesty Form

https://inside.tamuc.edu/aboutus/policiesProceduresStandardsStatements/rulesProcedures/documents/13.99.99.R0.03UndergraduateStudentAcademicDishonestyForm.pdf

Graduate Students Academic Integrity Policy and Form

Graduate Student Academic Dishonesty

https://inside.tamuc.edu/aboutus/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10.pdf

Graduate Student Academic Dishonesty Form

http://www.tamuc.edu/academics/graduateschool/faculty/GraduateStudentAcademicDishonestyFormold.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:

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Office of Student Disability Services
Velma K. Waters Library- Room 162
Phone (903) 886-5930
Fax (903) 468-8148
Email: StudentDisabilityServices@tamuc.edu
Website: https://www.tamuc.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 East Texas A&M University 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 East Texas A&M University campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

Note to Navarro Partnership Students: Navarro College has its own Campus Concealed Carry policy. Use the link below to access and read this policy.

http://navarrocollege.edu/boardpolicies/section-gj-1/

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East Texas A&M University Supports Students' Mental Health

Counseling Center 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.

COURSE OUTLINE / CALENDAR

NOTE: The instructor reserves the right to make changes to the schedule of the class. Any alterations will be announced by the instructor in class or via e-mail. Students who do not attend class regularly or check e-mail frequently assume full responsibility for missing changes to the course.

Date(s)	Activities	Assignments for next class	Student Outcomes
1/13	Intro to Course, Aquatic WILD curriculum, Picture Perfect Science Lessons, and The Private Eye curriculum. Video clip on WILD curriculum. Activity: Are you Me? (2-4) Set up Rice Germination Investigation.	Read pp. 61-67, 78-83, 87-89, and 93-96 in Reviewing Science. Complete Review Questions, Part 1, on pp. 67-69, 84-85, 90-91, and 97-98. Due next class.	1,2,3,4
1/20	Check rice project; record data. Review Forms of Energy Explore some properties of light, Electricity, and sound.	Read pp. 124-136 in Reviewing Science. Read handouts on springs and Roller Coasters.	1,2,3,4

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	LAB: Mirror, Mirror & Silly Spoons (K-2) LAB: Herding Electrons (Snap Circuit Kits) (4-6) Rotation LAB: Sounds All Around (K-1)		
1/27	Check rice project; record data. Review Force, Motion, Gravity, and Newton's Laws of Motion. LAB: Wind It Up! (3-5) LAB: Roller Coaster! (3-5)	Read handout on Charles Darwin and Theory of Evolution by Natural Selection. Prepare for Test #1	1,2,3,4
2/3	Check rice project; record data. Discuss Darwin's theory and how it works. Video Clip: How does Evolution work? LAB: Beaks Are for the Birds. (K-2) Take Test #1.	Read pp. 152-159 and pp. 186-193 in Reviewing Science. Complete Review Questions, Part 1, on pp. 160-161 and pp. 193-195. Due next class.	1,2,3,4
2/10	Review characteristics of living things and the role of DNA in the diversity of life on Earth. Video clip: Discovery of the Structure of DNA. LAB: Isolation of DNA from a fresh Strawberry. (6-8) Activity: Identifying some human genetic traits. (6-8) Turn in Rice Project Journal	Read pp. 222-234 in Reviewing Science. Complete Review Questions, Part 1, on pp. 227-228 and pp. 236-239. Due next class. Read handouts on Owl Pellets.	1,2,3,4
2/17	Video clip: Owls and Owl Pellets. Discuss predator/prey roles in an ecosystem; food chains/webs, and trophic levels in a food chain. LAB: Dissection and Analysis of a Barn Owl pellet. (4-8) **Begin Moon Journal**	Read handouts on human brain structure and the Senses. Read the instructions for assembly of your Brain Hat. Bring **completed Hat** to next class.	1,2,3,4
2/24	Review Structure of Mammalian Brain. Discuss roles of the Senses and parts of the Brain that control them. LAB: Investigating the Five Senses in a Human. (6-8)	Read pp. 189-195 and pp. 246-247 in Aquatic WILD manual.	1,2,3,4
3/4	Discuss impact of plastics pollution on the aquatic environment and its wildlife.	Complete out-of-class assignments. The reading assignments and watching	1,2,3,4

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	Video clip: Plastics Pollution in Texas. LAB: Plastic Voyages (6-8)	the video do not have separate worksheets. The worksheet that you do have includes all the reading that you do.	
3/9-3/13 3/14-3/22	First week is ETAM Spring Break. Second week is Navarro College Spring Break. No access to classrooms during second week.	Out of Class Assignment: 1. Read pp. 189-195 and pp. 246-247 in Aquatic WILD manual. 2. Watch "The Majestic Plastic Bag" on YouTube. 3. Read the book <u>One Plastic Bag.</u> (provided) 4. Complete the worksheet that covers these activities. Due when class resumes on 3/24.	1,2,3,4

3/24	Turn in worksheet. Discuss the impact of plastics pollution on the aquatic environment and its wildlife. Video clip: Plastic Pollution in Texas LAB: Plastic Voyages (6-8) **Turn in Moon Journal**	Review information in handouts on Density and the water column. Prepare for Test #2.	1,2,3,4
3/31	Discuss varieties of plastic that are found in the water column and their effects on marine animals. LAB: Plastics in the Water Column. (6-8) Take Test #2.	Read handouts on coral reefs and their ecology.	1,2,3,4
4/7	Discuss value of coral reef communities; threats caused by Global Warming; aquatic pollutants, invasive species. LAB: Over in the Ocean. (K-2) LAB: Coral Up Close. (3-8) Observe coral samples on the cabinet before you leave.	Read pp. 272-282 in Reviewing Science. Complete Review Questions, Part 1, on pp. 278-279. Due next class.	1,2,3,4
4/14	Discuss forces that change the Earth's surface and forces that change the interior of the Earth.	.Read pp. 283-287 in Reviewing Science. Complete Review Questions,	1,2,3,4

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	Composite lab on Weathering, Erosion, and Landforms. (5-8)	Part 1, on pp. 290-293. Due next class.	
4/21	Discuss the Theory of Plate Tectonics and how it explains the shapes and positions of the continents. Explain the link between Sea Floor spreading and this Theory. LAB: Drifting Continents and their Fossils Tell a Story (6-8)	Read pp. 257-260 in Reviewing Science. Complete Review Questions, PARTS 1 AND 2, on pp. 261-263. Due next class.	1,2,3,4
4/28	Discuss fossil types, fossilization process, methods of analysis of specimens. Activity: Plaster cast of a fossil specimen, using a mold. (4-8) LAB: Observation and Analysis of real fossils from areas of Texas. (4-8) Examine assorted specimens representing types of fossilization. Located on back table.	**PREPARE FOR FINAL EXAM.**	1,2,3,4

5/5	**FINAL EXAM (Comprehensive)**	N/A	1,2,3,4

Picture Perfect Science Lesson Activities
Children's Literature Books Referenced:
The Sun is my Favorite Star by F. Asch
Beaks by Sneed B. Collard, III
Hello, Red Fox by Eric Carle
Butternut Hollow Pond by Brian J. Heinz
Barn Owl by Sally Tagholm
Boy, Were We Wrong About Dinosaurs! by Kathleen Kudlinski
Earth's Landforms and Bodies of Water by Bobbie Kalman
Solving the Puzzle Under the Sea: Marie Tharp Maps the Ocean Floor by Robert Burleigh
How Mountains Are Made by Kathleen Weidner Zoehfeld
Over in the Ocean in a Coral Reef by Marianne Berkes
One Plastic Bag by Miranda Paul
Rain Fish by Lois Ehlert

Important Astronomical Dates for Spring 2026

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February 4	**Cross Quarter Day**
March 20	**Spring Equinox**
May 5	**Cross Quarter Day**

A Cross Quarter Day is a day that is halfway between a Solstice and an Equinox or an Equinox and a Solstice.

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