

GEOL 1112

Principles of Earth Science Lab Syllabus



Course Description

This is the lab to an introductory course to earth science that is designed to promote an understanding and appreciation of historical geology, oceanography, and solar system in which we live. The earth is fundamental to life as we know it today. The geologic history supports our understanding of the world in which we live. You will also be introduced to the aspects of oceanography and astronomy, specifically related to our world.

Catalog Description : GEOL 1212/1112. Study of the earth as a planet. A survey of earth history as interpreted from and exhibited by plants, animals, rocks, and minerals; a study of the earth in space; a survey of the physical processes operating in the hydrosphere. Includes an introduction to historical geology, astronomy, physiography, and oceanography. Prerequisite: GEOL 1311 or 1211 with a grade of "C" or better, may be taken concurrently. Corequisite: GEOL 1112.

Textbook info :: Earth Science, 15th edition; Thompson and Turk ISBN-13: 9780134543536 Please note, you may use an earlier edition

Course Objectives

- The student will identify the many ways in which earth science is interwoven into the fabric of modern civilization in general, and in their own surroundings specifically. Earth science is more than rocks and whether it's hot or cold and you'll learn how to recognize how much earth science is in your own lives. You will be collecting data from your own area via the lab activities.
- The student will properly apply the scientific method to research a problem and formulate conclusions. All sciences share a common methodology of attaining knowledge that seeks to eliminate bias and prejudice in research. You will learn the difference between a hypothesis and a scientific theory.
- The student will synthesize information from external sources and personal observations and incorporate them into lesson and lab activities. Many people are surprised that earth scientists can look at rocks in a road cut and tell a complete story of how those rocks came about or view the sky and be able to predict the weather. You will learn the principles that earth scientists use.
- The student will use proper descriptive, relational, and inferential data and be able to analyze it. You live in a very diverse landscape, almost every important geologic process has an example taking place in this region and you will understand how they work and when they came to exist.
- The student will identify, describe, and classify earth materials, formations, and structures and interpret them in the context of geologic processes and history. Students will also become familiar with oceanographic processes and the solar system in which they live. They will do this by completing lesson and lab activities which may include collecting visual data photographs.
- The student will identify, describe, and classify the rocks, fossils, and structures and interpret them in the context of geologic history. They will do this by completing lesson and lab activities which may include collecting visual data photographs.
- The student will communicate and defend their methodology and results using writing, graphical, and electronic forms in both the lessons and labs.
- The student will demonstrate their ability to download and use electronic resources and digital software such as Google Earth, Excel, various browser plugins and animations to support learning.

Course Expectations

This course is a 100% on-line course. On-line learning is different than sitting in a classroom. On-line learning may require a more intensive effort on the part of the student because you will have to gather information on your own as directed by the instructor instead of listening to a lecture. On-line learning does give you the freedom to study when and how you want. The principal means accessing your class will be through Blackboard.

All work is laid out in Learning Modules and should be accessed via the Learning Module link. The Learning Module page includes not only links to each individual module and graded work but also to the module introduction as well as additional instructions related to that particular module. Assignments and labs are to be submitted via each Module. You correspond with the instructor and with other students via Blackboard email. Your e-mail message will only go to those people you designate. In contrast, postings using the Discussion link are posted so that everyone in the class can read the posting and respond. The Discussion tool will be used for some assignments. Feel free to initiate discussions if you have questions or see something of interest to the class as a whole. I may edit and organize discussion postings as needed.

If you have questions, there are several means in which to get an answer: send the instructor a message, post a question in the Discussions, or, if you are having technical difficulties, use the Help button or call the Help Desk. Don't hesitate to contact the Help Desk for technical assistance. They are trained in answering those types of questions. The computer lab in the library has the latest software and browser plugins.

For those who need additional time to complete their lessons, please note that they are available from the start of the semester. Each lesson and lab will take approximately 2 hours to complete, so plan your time accordingly.

If you miss the due date you will have until the night before the next due date to turn it in. There will, however, be a late penalty applied. The availability for each assignment is posted, take note of when they are due and when they will become unavailable.

We will be taking advantage of internet resources and software in this course, so expect to download and install needed software and to use programs such as Google Earth, Excel your computer imaging processing program (such as Paint or Preview) and take digital photographs. If you aren't comfortable with your computer please expect the activities to take extra time while you are learning.

Procedures

- Class work will be posted and should be accessed under the **Learning Modules** tab. Each Learning Module will include: an introduction to the topic, a reading assignment, a reading quiz, and a written assignment. Due dates are given on the schedule. **DO NOT MISS DUE DATES** - quizzes will become unavailable *immediately* after the due date, and late assignments (which can be turned in the night before the next assignment is due) will be penalized. **It is important to keep up.**
- You should access each Learning Module as soon as you can and note what needs to be done and plan your work accordingly. I recommend that you set up to receive notifications of any e-mail, messages, and discussion posting so you know what is happening in class. If you have any questions, please don't hesitate to ask.
- You may submit work at any time before the due date and the earlier the better. It is not wise to wait until the last minute because 'technical difficulties' are not a valid excuse for missing a deadline.
- If your work is submitted before 5 pm of the due date, I will make every effort to review your work and let you know if you need to revise it before it is officially graded. I will leave comments as to what you are missing or have answered incorrectly. For revised credit your work **MUST** be turned in by the due date/time.
- I will typically visit the electronic classroom daily and will try to acknowledge all e-mails within 2-4 hours during the workweek until 5pm. Questions and messages posted after 5 pm or over the weekend may not be acknowledged until the following day.
- Extra credit, if/when offered, is offered to the entire class, not to individuals and only if turned in by the due date.
- For technical difficulties please contact either the Help Desk (see Policies section for more info) or Blackboard via the Help link.
- Do **NOT** submit work anywhere but the Lab dropbox. If the dropbox is not accepting your upload, email me and let me know to reset the folder.
- **NO** work will be accepted after the last day of class. The last day of class is the last day of instruction, not the last day of finals. **NO** work is accepted during finals.
- I make every attempt to present this class free of errors, but they do happen. If you see an error (due date, quiz question, etc.) please email me and let me know so I can fix it ASAP.

Course Outline

Module	Due	
Learning Module 1 Introduction to Earth Science II and the Scientific Method	Lab 1	Oct 21
Learning Module 2 Rock Cycle	Lab 2	Oct 27
Learning Module 3 Surface Processes	Lab 3	Oct 31
Learning Module 4 Sedimentary Rocks and Environments	Lab 4	Nov 5
Learning Module 5 Water and Water Resources	Lab 5	Nov 10
Learning Module 6 Geologic Time	Lab 6 Lab 7	Nov 14 Nov 17
Learning Module 7 Fossils	Lab 8 Lab 9	Nov 19 Nov 21
Learning Module 8 Ocean Basins, Oceans and Coastlines	Lab 10 Lab 11	Nov 27 Dec 1
Learning Module 9 Astronomy	Lab 12	Dec 3

Assessment and Grading Criteria

12 labs will be offered during the course of the term. Your letter grade for the course will be based on your aggregate score from your 12 labs (100%).

Grades will be based on the following criteria and will be assigned using the scale:

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

Each lab will have an accompanying activity. These activities are intended to provide examples of the concepts covered in the lecture and how scientists work.

- The labs will be linked to from within each **Learning Module**.
- The labs are to be submitted via the same link.
- You will be provided with an Answer Sheet. Download it to your computer, fill in the answers, do a "Save" and upload it for grading. I especially appreciate it if your answers are in a **different color** or set off from the text, it helps me when grading.
- The Labs are to be submitted via the Lab link for each Learning Module.
- A comment box is available in the Lab dropbox where you may post any comments you want me to read concerning your work. If you have questions about the lab, ask via the Bb email so I can read them **before** grading. I, too, will use the comment box to post any comments I may have on your work as I was grading it. Please return to read the comments, especially if you do not receive a grade for a lab within a few days of the due date.
- If you upload your work early (before 5 pm of the due date) I will try my best to look it over and notify you if you have any errors/mistakes. You will have until the due date/time to revise and resubmit your work for full credit. Please post your revisions in a **different color than your original answers**.
- I prefer your work to be answered using your own words, not copied verbatim from the text, the Internet, or a fellow student. Copying answers, especially if not referenced, is plagiarism. Shared, copied, or plagiarized work will be severely penalized.
- Labs will be graded on a 10 point scale. The grade will be based both on content and on completeness of the response.

9-10: The assignment is complete and correct. It shows insight and careful reflection on the topic. It is well written with complete sentences that respond to the questions.

8-9: The assignment is essentially complete. The learner shows understanding of the topic although there are minor errors they are not conceptual in nature.

7-8: The assignment is missing one or two answers or there are complete or there are errors in the work that reflect a misconception or lack of understanding.

6-7: The assignment is lacking more than one answer. Work is poorly done or displayed and does not demonstrate understanding of topics.

<6: Does not effectively address the assignment, major portions are missing.

- Labs are due at midnight (Mountain Time). Assignments posted after the deadline will lose 1 point.
- Labs can be turned in late up until the availability date, which is midnight the night before the next assignment is due.

UTEP Policies for Students

Informed Consent: Some individuals may choose to disclose personal information during class. Therefore, it is important that all classmates agree not to discuss or write about what others have discussed in class.

Disability Statement: Services for students with disabilities are provided through the Academic Support Center's Disability Services Office. Some examples of the assistance provided are audio materials for the blind or dyslexic, note takers, readers, campus guides, audio recorders, a quiet testing area, and undergraduate academic tutors. In order to qualify for these services, documentation must be provided by qualified professionals on an annual basis. Disability Services forms are available in the Academic Support Center.

Military Statement: If you are a military student with the potential of being called into military service and/or training during the course of the semester you are encouraged to contact the instructor regarding these matters.

Professionalism: Students are learning professional skills and are expected to engage in classroom discussions, complete reading assignments and turn in assignments in a timely fashion as befitting professional behavior.

Scholarly Writing: Use clear college level writing with correct spelling and grammar for all assignments. If you need help in writing, check with the UTEP Online Writing Center.

Integrated Use of Technology: Because this is an online course, I am making the assumption that you are comfortable utilizing a computer, and navigating various software programs like Microsoft Word, Powerpoint. If you have any questions about computer requirements see the *Student Resources* in Blackboard.

Need Help?

1. Post a question to the Discussion Board. There is no such thing as a dumb question.
2. Post a question as a Blackboard email to your instructor.
3. Click on the Help button in Blackboard.
4. If the Blackboard system goes down or you have other technical questions, contact the UTEP Help Desk

Academic Integrity Policy and Procedures: Each student shall observe standards of honesty and integrity in academic work completed at UTEP. Students may be penalized for violations of the Academic Integrity policy. Please refer to the Academic Integrity section in the current UTEP Catalog. (Clearly specify what you consider to be violations of academic honesty.)

Caveats: The schedule and procedures in this course are subject to change in the event of extenuating circumstances.

Code of Civility: In order to promote a positive, professional atmosphere among students, faculty and staff, the following Code of Civility has been developed:

- **Respect:** Treat all students, faculty, staff and property with respect and in a courteous and professional manner. This includes all communications, whether verbal or written. Let your actions reflect pride in yourself, your university, and your profession.
- **Kindness:** A kind word and gentle voice go a long way. Refrain from using profanity, insulting slang remarks, or making disparaging comments. Consider another person's feelings. Be nice.
- **Truth:** Exhibit honesty and integrity in your dealings with fellow students, faculty and staff members. Don't lie, don't cheat, and don't steal.
- **Responsibility:** Take responsibility for your actions. This includes gracefully accepting the consequences of your behavior.
- **Cooperation:** Exhibit a cooperative manner when dealing with students, faculty and staff so we may all work towards our common goals and mission.
- **Acceptance:** Accept differences in others, as they accept differences in you. This includes diversity in opinions, beliefs and ideas and everything else that makes us unique individuals.
- **Professionalism:** Always conduct yourself in a manner that will bring pride to your profession, to the University of Texas at El Paso, and, most importantly, to yourself