

THE UNIVERSITY OF TEXAS AT TYLER
Syllabus for Geology 3310.001 - Physical Geology and Astronomy
Spring Semester 2018 RBS 2024

Instructor: Jeff Lauman, M.S., P.G.

Office Hours 5:30-6:00 PM & 8:45-9:30 PM Mondays - Tuesdays

Kilgore RRC 903-984-3026 ext 220 Hm 903-592-5395 9-10 pm jlauman@uttyler.edu

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I. MATERIALS

Text: Tarbuck, Edward J. and Lutgens, Frederick K. **Earth Science. 14th ed.**, (3 Ring Binder or Hardbound) Pearson Education Inc. Prentice Hall publisher (2014), Upper Saddle River, New Jersey 07458.

ISBN-10: 0-321-92809-1 After 1/1/2007: ISBN-13: 978-0-321-92809-2

Optional: Student Lecture Notebook

Powerpoint presentations, selected videos, lab exercises, and other materials assigned by the instructor.
Class will meet in RBS 2024 Tuesday evenings from 6:00 PM – 8:45 PM.

II. INTRODUCTION

This course consists of an introduction to physical geology (70%) and an introduction to astronomy (30%). Geology "the study of the Earth" deals with the history of our Earth's formation, the rocks of which it is composed, and the changes which it has undergone and is still undergoing. Geology has a very practical impact on our daily lives. The oil, gasoline, coal, uranium, etc. are necessary to power our vehicles, heat & cool our homes comes from rocks that were likely discovered by a geologist. Astronomy "the study of the universe" relates our planet Earth to our solar system and in turn to the larger universe. In this modern age of "Space Science" there are weekly news reports of new observations, theories, and discoveries that seek the origins and evolution of planets, solar systems, and galaxies. Astronomy also seeks to answer questions about our own planet's origin and development of our own environment.

III. STUDENT LEARNING OUTCOMES

By the end of this course, students should be able to:

- Analyze the concepts of time, space, and distance as they are used in the sciences of Geology & Astronomy.
- Differentiate between Alfred Wegener's Continental Drift hypothesis of the 1920's and the new paradigm of Plate Tectonics.
- Discriminate between: A. The additions & movements of the earth's crust by the activities of volcanoes, mountain building, and earthquakes. B. Weathering, erosion, and subsequent sediment deposition by the forces of gravity, running water, wind, and glaciers.
- Classify the earth's rocks into the Rock Cycle components as belonging to either igneous, sedimentary, or metamorphic.
- Investigate today's timely usage of alternative fuels versus fossil fuels.
- Weekly "Critical Thinking" questions in the form of "Earth Science - Physical Processes & Concepts Work Sheets" will challenge the student to analyze & describe how a geologic process works.
- Examine Planet Earth as it relates to the other members of the solar system, Milky Way Galaxy, and the universe.

IV. HOW TO SUCCEED IN THIS COURSE

Your grade will be determined by your work. The Semester grade will be comprised of: Three Tests – 55%, three Lab tests - 25%, and a cumulative Final Exam - 20%. The semester grade computation is listed below. There will be many items described in the lecture and the videos that cannot be found in the book. These items will be included on the tests. There are many items mentioned in the book that will not be included in lectures or tests, so if you miss lectures you won't know what to study.

Students must study outside of class to be successful in this course. Outside work includes reading the textbook, reviewing lecture notes & Powerpoints, and comprehending the “Earth Science - Physical Processes & Concepts Work Sheets”. Typically, this requires 3 or more hours for each hour of lecture. Students should take adequate lecture notes, and these notes should be reviewed as soon as possible after class meeting so that the students may consult with the instructor about any material that may seem unclear. Students are encouraged to use the materials & resources at the U.T.T. Muntz Library.

Students with a grade D or F should consult with the instructor voluntarily to ascertain the reason for their low average in the course. These conferences should come as soon as possible after the grades reach this danger point in order that the students might correct their problems. An “I” grade may be given, at the discretion of the Instructor, in the event of a “Life Event”. Documentation may be requested.

Students are required to take the Final Examination in order to receive a passing grade in the course.

The last day to withdraw from the course with an automatic grade of “W” is April 2, 2018.

To withdraw from the course, students should initiate withdrawals with the instructor.

V. STUDENT ACADEMIC CONDUCT

In this course students are encourage to study and to prepare for tests and the final and laboratories with other students. The assignments that you turn in are to be as a result of **YOUR WORK**. *Cheating will not be tolerated.* The university regulations are very explicit about academic dishonesty, and these regulations will be fully enforced. *During tests and the final exam, a code of honor will apply under which students are to work alone and neither give help to others nor receive help from any sources.*

UT Tyler Honor Code: I embrace honor and integrity. Therefore, I choose not to lie, cheat, or steal, nor to accept the actions of those who do.

Students also are expected to help enforce this code. Students are encouraged to obtain a copy of *A Student Guide to Conduct and Discipline at UT Tyler*, available in the Office of Student Affairs.

Attendance Policy. Student absences will be considered on a case by case basis. Since the class meets only once per week much material will be covered and any missed class periods will likely result in lower test and final grades. If you are unable to attend a class meeting, all discussed material and all given assignments are your responsibility.

**** Send me an E-Mail that you are going to miss a class ****

VI. UNIVERSITY POLICIES

Students Rights and Responsibilities

To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link:

<http://www.uttyler.edu/wellness/StudentRightsandResponsibilities.html>

Grade Replacement/Forgiveness

If you are repeating this course for a grade replacement, you must file an intent to receive grade forgiveness with the registrar by the 12th day of class. Failure to do so will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates will receive grade forgiveness (grade replacement) for only three course repeats; graduates, for two course repeats during his/her career at UT Tyler.

State-Mandated Course Drop Policy

Texas law prohibits a student who began college for the first time in Fall 2007 or thereafter from dropping more than six courses during their entire undergraduate career. This includes courses dropped at another 2-year or 4-year Texas public college or university. For purposes of this rule, a dropped course is any course that is dropped after the 12th day of class (See Schedule of Classes for the specific date). Exceptions to the 6-drop rule may be found in the catalog. Petitions for exemptions must be submitted to the Registrar's Office and must be accompanied by documentation of the extenuating circumstance. Please contact the Registrar's Office if you have any questions.

Disability Services

In accordance with federal law, a student requesting accommodation must provide documentation of his/her disability to the Disability Support Services counselor. If you have a disability, including a learning disability, for which you request an accommodation, please contact Ida MacDonald in the Disability Support Services office in UC 282, or call (903) 566-7079.

Student Absence due to Religious Observance

Students who anticipate being absent from class due to a religious observance are requested to inform the instructor of such absences by the second class meeting of the semester.

Student Absence for University-Sponsored Events and Activities

If you intend to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the instructor at least two weeks prior to the date of the planned absence. At that time the instructor will set a date and time when make-up assignments will be completed.

Social Security and FERPA Statement:

It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number. The electronic transmission of grades (e.g., via e-mail) risks violation of the Family Educational Rights and Privacy Act; grades will not be transmitted electronically.

“UT Tyler is a Tobacco-Free University: A. All forms of tobacco will not be permitted on the UT Tyler main campus, branch campuses, and any property owned by UT Tyler. This applies to all members of the University community, including students, faculty, staff, University affiliates, contractors, and visitors. B. Forms of tobacco not permitted include cigarettes, cigars, pipes, water pipes (hookah), bidis, kreteks, electronic cigarettes, smokeless tobacco, snuff, chewing tobacco, and all other tobacco products. C. There are several cessation programs available to students looking to quit smoking, including counseling, quitlines, and group support. For more information on cessation programs please visit www.uttyler.edu/tobacco-free.”

New Concealed Campus Carry Law:

“We respect the right and privacy of students who are duly licensed to carry concealed weapons in this class. License holders are expected to behave responsibly and keep a handgun secure and concealed. More information is available at <http://www.uttyler.edu/about/campus-carry/index.php>.”

Emergency Exits and Evacuation:

Everyone is required to exit the building when a fire alarm goes off. Follow your instructor's directions regarding the appropriate exit. If you require assistance during an evacuation, inform your instructor in the first week of class. Do Not re-enter the building unless given permission by University Police, Fire department, or Fire Prevention Services.

VII. SEMESTER GRADE COMPUTATION AND PERCENT TO GRADE RATIO

Tests*	100 percent each x 3	550 pts	A= 900+ B= 800-899 C= 700-799 D= 600-699
Lab Tests	100 percent each x 3	250 pts	
Final Exam – Comprehensive		200 pts	
		Total 1,000 pts	

Critical Thinking Questions in the form of:

“Earth Science - Physical Processes & Concepts Work Sheets”

are presented in the Powerpoints and are intended to have the student analyze & describe how an earth system or a process functions. CTQs will commonly focus on a process that was stressed, repeated in class, and/or covered during the video. These Work Sheets will comprise a significant portion of each test.

* **Extra Credits** – Tour or attend a presentation at the TJC’s Planetarium (Limited to 1), Rock & Mineral Show, NOAA Storm Training, East Oil Museum, in Kilgore, TX, Salt Museum in Grand Saline, TX, the High Altitude Balloon Facility northwest of Palestine, TX, or another Earth Science museum/exhibit/presentation. Turn in a half page typed detailing what **you learned about Earth Science plus a ticket stub**. I’ll add 7 % or 8% to a Test. (In reality, they get added in to your test grades). Limit 2.

VIII. Memorandum of Understanding (M.O.U.)

- A 3 hr Lecture night course = A 3 hr Lecture course that meets Mon, Wed, and Friday.
- Class attendance after Tests = being in classes on Wed & Fri.
- **** Send me an E-Mail that you are going to miss a class ****
- If you miss a class meeting, all presented material is your responsibility to acquire. Find another student to study with & have them pick up the handouts for you.
- The instructor recommends that students read the chapter(s) & work through the Concept Questions (Homework Questions) **shortly** after attending class. Three to four (3-4) or more hours of weekly study time are recommended. Three to four (3-4) or more hours of study time are recommended prior to taking a test.
- Prior to sending an e-mail to the instructor, please consult: the Syllabus, announcements, and instructions previously posted on Blackboard.
- Most degree plans do not accept “D’s”. There are no last minute extra extra credits.

I understand the above recommendations & instructions. _____ **Student’s initials.**

IX. COVERED TOPICS, TESTS, AND FINAL EXAM DATES

1. Introduction Chapter 1 & Plate Tectonics Chapter 7 **Jan 16**
Plate Tectonics - Video
2. Earthquakes & Earth's Interior Chapter 8 / Earthquakes - Video **Jan 23**
3. **Test 1** / Volcanoes & Igneous Activity Chapter 9 **Jan 30**
Volcanoes - Video
4. Mountain Building Chapter 10 & Chapter 2 **Hurricane Tracks Map handed out. Feb 6**
Lab Minerals / Collecting Minerals - Video
5. Weathering, Soil, Mass Wasting Chap 4 **Feb 13**
Lab Igneous Rocks / Soil Video - Video
6. **Lab Test 1** (Min & Igneous) **Hurricane Tracks Map - Due – Part of Lab Test #1**
Running Water & Groundwater Chapter 5 / Carrizo Aquifer **Feb 20**
7. **Test 2** Glaciers-Deserts-Wind Chap 6 & Rocks Chap 3 / Lab Sed & Met Rocks
Yellowstone - Video **Feb 27**
8. Geologic Time & Earth's History Chapters 11 & 12 / Lab Sed & Met Rocks **March 6**
Planet Earth - History Video **Mid Term Grades Posted.**
9. **Lab Test 2** (Sed & Met Rocks) Intro to Oil, Ngas, Coal & Energy Topics Part A **March 20**
East Texas Basin & Barnett Shale Powerpoint Presentations
**** Last day to withdraw with "W" April 2 ****
10. Energy Topics Part B Lab Cross Sections Lab County & State Maps **March 27**
Price of Gasoline Video
11. **Test 3** / Origin of Astronomy Chapter 21 & 23, Lab Co. & Tx Maps The Sun - Video **April 3**
12. Our Solar System Chapter 22 & 24 / Lab Topo Maps Video Meteor - Video **April 10**
13. **Lab Test 3** Stars Chapter 24 / Stars & Universe - Videos **April 17**
14. Stars Chapter 24 / The Universe - Video / Course Review **April 24**
15. **Final Exam** - Counts as 20% of the course grade - Comprehensive / **May 1** * 6 pm - 8 pm
* Time may be changed.