

GRAYSON COLLEGE

Course Syllabus

Course Information

GEOL1301 Earth Science and GEOL1101 Earth Science Lab

Type of Course/Delivery Mode/Testing Requirements

Face-to-face on campus, 3 hour lecture/week, 2 hour lab/week, testing performed in class

Professor Contact Information

Instructor: Rick Lynn

Instructor's Phone Number: 903-463-8656

Instructor's email: lynnr@grayson.edu

Instructor's Office: S104

Science Department Office Phone: 903-463-8797

Office Hours: I will be in my office from 1:00PM until 3:00PM on Monday and from 11:00AM until 1:00PM in Thursday. If I am unable to assist you at that moment, I will let you know. I check my email and Canvas multiple times throughout the day and will respond as soon as possible.

Course Pre-requisites, Co-requisites, and/or Other Restrictions

Concurrent enrollment in GEOL1101 Earth Science Lab is required.

Although students must register for a separate course number, these sections (lecture and lab) are combined into a single course and are used together for meeting state core objectives (CS1, CT2, CT3, EQS2, and TW1), and for final grade calculations. Lecture work will make up 60% of the final grade and the remaining 40% of the grade will be from lab work. In some instances the courses will also be combined into one Canvas course shell where both lecture and lab work will be completed. Please see instructions when logging into the course online.

Course Description – from college catalog

GEOL 1301 Earth Science. Survey of physical and historical geology, astronomy, meteorology, oceanography, and related sciences. (R)

State Core Objectives that will be met in this combined Lecture and Lab course:

- Communication Skills, CS1 – Students will develop, interpret, and express ideas through written communication.
- Critical Thinking Skills, CT2 – Gather and assess information relevant to a question.
- Critical Thinking Skills, CT3 – Analyze, evaluate, and synthesize information.
- Empirical and Quantitative Skills, EQS2 – Students will describe, explain, and predict natural phenomena using the scientific method.

- Teamwork, TW1 – Students will work cooperatively with their peers and leaders to more effectively solve problems by utilizing insights from multiple perspectives.

Student Learning Outcomes

- Explain the current theories concerning the origin of the Universe and of the Solar System.
- Explain the place of Earth in the Solar System and its relationships with other objects in the Solar System.
- Relate the origin and evolution of Earth's internal structures to its resulting geologic systems, including Earth materials and plate tectonic activities.
- Explain the operation of Earth's geologic systems and the interactions among the atmosphere, the geosphere, and the hydrosphere, including meteorology and oceanography.
- Explain the history of the Earth including the evolution of earth systems and life forms.
- Classify rocks and minerals based on chemical composition, physical properties, and origin.
- Apply knowledge of topographic maps, diagrams, and/or photographs to identify landforms and explain the processes that created them.
- Differentiate the types of plate boundaries, explain the processes that occur at each and identify associated structural features on maps, block diagrams and cross sections.
- Apply relative and numerical age-dating techniques to construct geologic histories.
- Measure atmospheric processes that affect weather and climate.
- Describe the composition and motion of ocean water and analyze the factors controlling both.
- Compare properties and motions of objects in the solar system.
- Demonstrate the collection, analysis, and reporting of data.

Required Textbooks (ISBN # included) and Materials

Foundations of Earth Science, Seventh Edition, Lutgens and Tarbuck, ISBN 0-321-81179-8

Suggested Course Materials

scientific calculator

Outline of Topics Covered-Lecture

Introduction to Earth Science

Chapter 1 Matter and Minerals

Chapter 2 Rocks: Materials of the Solid Earth

Lecture Test One: Introduction, Chapters 1 and 2

Chapter 3 Landscapes Fashioned by Water

Chapter 4 Glacial and Arid Landscapes

Lecture Test Two: Chapters 3 and 4

Chapter 5 Plate Tectonics: A Scientific Revolution Unfolds

Chapter 6 Restless Earth: Earthquakes, Geologic Structures and Mountain Building
 Chapter 7 Volcanoes and Other Igneous Activity
 Lecture Test Three: Chapters 5, 6 and 7, Wednesday
 Chapter 8 Geologic Time
 Chapter 9 Oceans: The Last Frontier
 Chapter 10 The Restless Ocean
 Lecture Test Four: Chapters 8, 9 and 10
 Chapter 11 Heating The Atmosphere
 Chapter 12 Moisture, Clouds and Precipitation
 Lecture Test Five Chapters 11 and 12
 Chapter 13 The Atmosphere in Motion
 Chapter 14 Weather Patterns and Severe Weather
 Lecture Test Six Chapters 15 and 16

Outline of Topics Covered-Lab

Assignment
Lab 1 The Metric System & the Scientific Method
Lab 2 Minerals & Igneous Rocks
Lab 3 Sedimentary & Metamorphic Rocks
Lab 4 Water Usage & Conservation
Lab 5 Earthquakes
Lab 6 Coordinate Systems, Maps & Time Zones
Test 1 Labs 1 through 6
Lab 7 Geologic Time
Lab 8 Insolation, Seasons & Climates
Lab 9 Atmospheric Conditions (CT2, CT3, TW1, EQS2)
Lab 10 Clouds, Fronts and Weather Maps
Lab 11 Moons & Other Celestial Bodies
Lab 12 Solar System
Test 2 Labs 7 through 12

In case of inclement weather, emergency closings, or other unforeseen disruptions to scheduled classes, student must log onto their Canvas accounts for directions on where or how to continue their coursework.

Methods of Evaluation

Six major examinations will be given for the lecture and two for the lab throughout the semester. Dates of the examinations are in the syllabus, but may be changed if necessary. **There are no makeup exams!** If you know you will be unable to take a test during the assigned time, contact me prior to the test to make arrangements to take the test at another time. Decisions concerning alternative testing times are strictly the discretion of the professor.

Any missed weekly lab work must be completed within one week of the missed lab. This does not apply to lecture or lab tests.

The use of textbooks, class notes or on line resources is not allowed during any tests. Any student that violates the Student Academic Integrity Policy or any guideline regarding the use of textbooks, class notes or on line resources during tests will automatically receive a zero for the test.

Exams may consist of multiple choice, short answer, matching, fill in the blank, and/or essay questions.

In the event that the total number of points on a test does not equal 100, the grade will be normalized to 100. For example, a score of 62 out of 80 would be a 77.5 $((62/80)*100)$.

Grading

Letter grades will be assigned as follows:

- 90.0-100=A
- 80.0-89.99=B
- 70.0-79.99=C
- 60.0-69.99=D
- Below 60.0=F

Grade Calculation for the lecture portion of the course: $\text{Add all test scores} + \text{Extra Credit} / 6 = \text{Final Lecture Average}$

Grade Calculation for the lab portion of the course: $((\text{Weekly Lab Average}) + (\text{Lab Test One}) + (\text{Lab Test Two})) / 3 = \text{Final Lab Average}$

Grade Calculation for the entire course: $(\text{Final Lab Average} * .4) + \text{Final Lecture Average} * .6 = \text{Final Course Grade}$

I want to remind everyone, no professor “gives” a student a grade. The student earns the grade they receive.

Important Dates

Course & Instructor Policies

There will extra credit assignments available during the semester. The maximum amount of extra credit points for the semester will be determined based on the numbers of assignments and their complexity. Please do not ask as no other extra credit will be available.

Laboratory Safety Policy

1. In order to avoid creating unsafe situations professional, judicious, and safe conduct is required of each student.
2. Be aware of the potential of electrical shock when using the microscopes.
3. Laboratory samples are to be used with caution. Under no circumstances are laboratory samples to be moved in an inappropriate manner nor are they to be

broken, chipped, or otherwise mutilated. No laboratory samples are to be taken out of the room at any time.

4. All chair legs are to remain on the floor at all times.
5. Report all accidents to the instructor and the campus police immediately.
6. Become familiar with the exits in case of fire.

Class Attendance

Academic success is closely associated with regular classroom attendance and course participation. All successful students, whether on campus or online, are expected to be highly self-motivated. All students are required to participate in courses regularly and are obliged to participate in class activities and complete and submit assignments following their professors' instructions. Students taking courses during compressed semester time frames such as mini-mester, summer sessions, and mid-semester should plan to spend significantly more time per week on the course. Responsibility for work missed because of illness or school business is placed upon the student. More than two (2) absences are considered to be excessive. In addition, students' eligibility to receive financial aid or live in a College dormitory can be affected by withdrawal from courses. When withdrawal occurs, any tuition refund would be made in accordance with state regulations.

Student Conduct & Discipline

Students are expected to maintain classroom decorum that includes respect for other students and the instructor. Prompt and regular attendance is required. Students must not disrupt the class or leave before class has been released. Students must maintain an attitude that seeks to maximize educational opportunities in the classroom. Failure to comply with proper classroom decorum will result in the student being dropped from the class.

All cell phones and other electronic devices must be turned off before entering the classroom. If you have an emergency and need to take a call during class, you must inform the instructor before the beginning of class. Turn your ringer to vibrate, and when your call comes in, pick up all of your belongings and leave the classroom. You may return to class the next time the class meets. In the event that I see your cell phone out during class, your cell phone rings during class or I catch you leaving class to answer your cell phone, I will **deduct 10 points** from your next lecture test. Each violation of this policy will result in a 10 point deduction on the next lecture test. Any grade reduced because of a violation of the cell phone policy will not be replaced.

Under no circumstances will any electronic devices be allowed in the classroom during a test. You CANNOT use the calculator on your cell phone!

Defacing College Property

Anyone caught defacing property or damaging equipment in the lab or lecture room will be responsible for cleaning, repairing or replacing the defaced property or damaged equipment. **The individual will receive a zero (0) for the next lecture or lab test.** A grade of zero received for defacing property cannot be replaced. Defacing property

includes, but is not limited to, writing, marking or scratching on the tables, tabletops, chairs, cabinets, counter tops, shelving or walls

Academic Integrity

The faculty expects from its students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrate a high standard of individual honor in his or her scholastic work.

Scholastic Dishonesty, any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts.

Plagiarism, especially from the web, from portions of papers for other classes, and from any other source is unacceptable and will be dealt with under the college's policy on plagiarism (see GC Student Handbook for details). Grayson College subscribes to turnitin.com, which allows faculty to search the web and identify plagiarized material.

Withdrawal from Class

The administration of this institution has set deadlines for withdrawal from any college-level courses. These dates and times are published in that semester's schedule of classes. Administrative procedures must be followed. It is the student's responsibility to handle student initiated withdrawal requirements from any class. You must do the proper paperwork to ensure that you will not receive a final grade of "F" in a course if you choose not to attend the class once you are enrolled (see GC College Catalog for details).

TITLE IX

GC policy prohibits discrimination on the basis of age, ancestry, color, disability, gender identity, genetic information, national origin, race, religion, retaliation, serious medical condition, sex, sexual orientation, spousal affiliation and protected veterans status. Furthermore, Title IX prohibits sex discrimination to include sexual misconduct: sexual violence (sexual assault, rape), sexual harassment and retaliation.

For more information on Title IX, please contact:

- Dr. Regina Organ, Title IX Coordinator ([903-463-8714](tel:903-463-8714))
- Dr. Dava Washburn, Title IX Coordinator ([903-463-8634](tel:903-463-8634))
- Dr. Kim Williams, Title IX Deputy Coordinator- South Campus ([903-415-2506](tel:903-415-2506))
- Mr. Mike McBrayer, Title IX Deputy Coordinator ([903-463-8753](tel:903-463-8753))
- Website: <http://www.grayson.edu/campus-life/campus-police/title-ix-policies.html>
- GC Police Department: ([903-463-8777](tel:903-463-8777)- Main Campus (903) 415-2501- South Campus)
- GC Counseling Center: ([903-463-8730](tel:903-463-8730))
- For Any On-campus Emergencies: 911

Grayson College is not responsible for illness/injury that occurs during the normal course of classroom/lab/clinical experiences.

These descriptions and timelines are subject to change at the discretion of the Professor.

Grayson College campus-wide student policies may be found on our Current Student Page on our website: <http://grayson.edu/current-students/index.html>