

**Department Syllabus**  
**GEOL 1102**  
**Earth Sciences for Non-Science Majors II - Laboratory**  
**Western Texas College**

**I. Basic Course Information:**

- A. Course Description: This laboratory-based course accompanies GEOL 1302, Earth Sciences II. Activities will focus on methods used to collect and analyze data in natural resources, hazards and climate variability.
- B. Pre/Co-requisite: GEOL 1302 Earth Science for Non-Science Majors II (lecture). Students must be able to read and comprehend on the college level.
- C. Online course content is administered through the college's learning management system (LMS), D2L or Bright Space. Type in [learn.wtc.edu](http://learn.wtc.edu) to access this system

**II. Student Learning Outcomes (SLO)**

- A. Locate on maps and/or photographs localities susceptible to tectonic, meteorological, and oceanographic hazards.
- B. Discuss methods of hazard prevention and mitigation such as early warning techniques, construction methods, and civil planning.
- C. Describe contributing factors to past and current climate change.
- D. Analyze effects of climate variability on geological and biological systems.
- E. Analyze diverse sources of data that document climate variability such as ice cores, dendrochronology, fossils, and pollen.
- F. Relate the distribution of fossil fuel, metal and nonmetal resources to geologic processes.
- G. Describe the methods of extraction of natural resources and their effect on the environment.
- H. Describe the renewable resources and methods of sustainability.

**III. Testing Requirements**

- A. The comprehensive final exam must be proctored by an approved testing organization. (Ask your instructor for details.)
- B. Students are NOT allowed to use their book on the exam, but may use 1 page of notebook paper with notes. Students are NOT allowed to use cell phones or access the Internet during the exams.
- C. Students may use their lab manual on all lab assignments and quizzes.

- IV. Major Course Requirements**
- A. Major Requirement 1 – There will be a proctored final exam.
  - B. Major Requirement 2 – There will be 9 unproctored lab assignments.
  - C. Major Requirement 3 – There will be a Teamwork Research Project
- V. Grading Assessments**
- A. Lab Assignments 50%, Teamwork Research Project 15%, and proctored Final Exam 35%.
  - B. Final Grade: A = 90-100, B = 80-89, C = 70-79, D = 60-69, F = 59 and below.
- VI. Information Books and Other Course Materials**
- A. Lab Kit from eScience Labs – Kit7899.
- VII. Other Policies, Procedures and important dates. Click this link <http://www.wtc.edu/publications.html> then on the appropriate catalog to find the following information.**
- A. Campus Calendar
  - B. Final exam schedule
  - C. How to drop a class
  - D. Withdrawal information
  - E. Student Conduct/Academic Integrity
  - F. Class Attendance
  - G. Students with disabilities
- VIII. Planned Course of Study**
- A. Laboratory

Labs must be completed in the sequence in which they appear.

<b>LABORATORY NAME</b>
Lab #1 – Geologic Time and Solar System
Lab #2 – Geologic Dating – Absolute/Relative
Lab #3 – Plate Tectonics
Lab #4 – Transgressions and Regressions
Lab #5 – Geologic Maps
Lab #6 – Fossil Identification
Lab #7 - Astronomy
Lab #8 – The Scale of the Solar System
Lab #9 – Our Place in the Universe

**Note: Schedule and content of the course are subject to change at the instructor's discretion.**

**Last updated 3/11/2022**