

**Department Syllabus**  
**GEOL 1101**  
**Earth Sciences for Non-Science Majors I - Laboratory**  
**Western Texas College**

**I. Basic Course Information:**

- A. Course Description: This laboratory-based course accompanies GEOL 1301, Earth Sciences I. Activities will cover methods used to collect and analyze data in geology, meteorology, oceanography, and astronomy.
- B. Pre/Co-requisite: GEOL 1301 Earth Science for Non-Science Majors I (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. Classify rocks and minerals based on chemical composition, physical properties, and origin.
- B. Apply knowledge of topographic maps, diagrams and/or photographs to identify landforms and explain the processes that created them.
- C. 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.
- D. Apply relative and numerical age-dating techniques to construct geologic histories.
- E. Measure atmospheric processes that affect weather and climate.
- F. Describe the composition and motion of ocean water and analyze the factors controlling both.
- G. Compare properties and motions of objects in the solar system.
- H. Demonstrate the collection, analysis and reporting of data.

**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 books on the exam, but may create use a single sheet 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 8 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: 2nd Edition Physical Geology - Basic Kit from eScienceLabs; SKU Kit7102
- 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 (Exercise Number)</b>
Lab 1 - Minerals
Lab 2 – Igneous Rocks
Lab 3 – Sedimentary Rocks
Lab 4 – Metamorphic Rocks
Lab 5 – Plate Tectonics
Lab 6 – Geologic Dating
Lab 7 – Weathering and Erosion
Lab 8 - Mapping

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

**Last updated 3/11/2022**