

**El Paso Community College**  
**Syllabus**  
**Part II**  
**Official Course Description**

<b>SUBJECT AREA</b>	<u>Geology</u>
<b>COURSE RUBRIC AND NUMBER</b>	<u>GEOL 1303</u>
<b>COURSE TITLE</b>	<u>Physical Geology</u>
<b>COURSE CREDIT HOURS</b>	<u>3            3        :        0</u> Credits    Lec        Lab

**I.      Catalog Description**

Studies the principles and processes of physical geology with emphasis on earth materials structures, land forms, and mineral resources. Recommended for all students majoring in science or engineering. Requires a one-day field trip. **Prerequisite: READ 0309 or INRW 0311 or ESOL 0340 (can be taken concurrently) or by placement exam or ENGL 1301 with a “C” or better or ENGL 1302 with a “C” or better. Corequisite: GEOL 1103. (3:0).**

**II.     Course Objectives**

Upon successful completion of this course, the student will be able to:

- A.      List the three particles of the atom and list their characteristics and locations; explain the characteristics of the bonding of the most common elements.
- B.      Explain how atomic structure relates to the crystal form and physical properties of the basic rock forming and ore minerals.
- C.      Describe the physical properties of minerals and use these to identify the common rock forming and ore minerals.
- D.      Draw the rock cycle; explain the origins of the basic rock types and explain the processes that change rocks from one type to another.
- E.      Draw Bowen’s Reaction Series and explain how it relates to the various compositions of igneous rocks.
- F.      Explain the processes involved in the formation of igneous, sedimentary, and metamorphic rocks and be able to identify the common rock types.
- G.      List the basic volcanic processes acting upon the Earth and their effect upon man and the environment.
- H.      Describe the basic tectonic processes acting upon the Earth and their effect upon man and the environment.
- I.      Describe the basic hydrologic processes acting upon the Earth and their effect upon man and the environment.
- J.      Describe the basic weathering processes acting upon the Earth and their effect upon man and the environment.
- K.      Explain the basics of the earth’s magnetic and gravitational fields.
- L.      Explain the Big Bang Theory and the Solar Nebula Theory.
- M.      Identify the structure and composition of the earth’s interior.
- N.      Explain the formation of and exploration for the basic mineral and energy resources.
- O.      Read topographic maps and aerial photos and recognize important geomorphic features.

### III. Evaluation

The procedure for determining the final grade will be decided by the instructor and presented to the student in the syllabus.

#### LECTURE

- A. Exams and Quizzes. The number, frequency and type of quizzes and exams are left to the discretion of the instructor.
- B. Grading:
  - Above 90            =**A**
  - 80-89.9            =**B**
  - 70-79.9            =**C**
  - 60-69.9            =**D**
  - Below 60            =**F**

### IV. Disability Statement (American with/Disabilities Act [ADA])

EPCC offers a variety of services to persons with documented sensory, mental, physical, or temporary disabling conditions to promote success in classes. If you have a disability and believe you may need services, you are encouraged to contact the Center for Students with Disabilities to discuss your needs with a counselor. All discussions and documentation are kept confidential. Offices located: VV Room C-112 (831-2426); TM Room 1400 (831-5808); RG Room B-201 (831-4198); NWC Room M-54 (831-8815); and MDP Room A-125 (831-7024)

### V. 6 Drop Rule

Students who began attending Texas public institutions of higher education for the first time during the fall 2007 semester or later are subject to a 6-Drop limit for all undergraduate classes. Developmental, ESL, Dual Credit and Early College High School classes are exempt from this rule. All students should consult with their instructor before dropping a class. Academic assistance is available. Students are encouraged to see Counseling Services if dropping because exemptions may apply. Refer to the EPCC catalog and website for additional information.