

# **COURSE SYLLABUS**

GEL 210 Physical Geology Lecture

**CREDIT HOURS:** 4.00

## CONTACT HOURS: 90.00

## COURSE DESCRIPTION:

Geology is the scientific study of the Earth. Physical geology is concerned with earth materials, changes in the interior and surface of the earth, and the dynamic forces that cause those changes. The course is organized beginning with a focus on earth materials, minerals, igneous rocks and volcanoes, processes of weathering, sediments and sedimentary rocks, soils, and metamorphic rocks.

Internal earth processes are emphasized, covering the processes of mountain building, structural geology and maps, plate tectonics, earthquakes, and the earth's interior and the sea floor. The final focus is on surface processes including streams and groundwater, glaciers, deserts, wind and shoreline processes. Meets six hours per week, four hours lecture, two hours laboratory.

## PREREQUISITES: NONE

### **EXPECTED COMPETENCIES:**

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

- 1. Describe how the earth was formed and where it fits into the larger universe
- 2. Identify the rock forming minerals as well as rocks from the different rock cycles
- 3. Determine why the appearance of the land changes as you travel from place to place
- 4. Understand why California experiences more severe earthquakes than any other state in the union
- 5. Determine if the stories of continental drifting is true
- 6. Describe why most of the active volcanoes are located around the margin of the Pacific Ocean

### **ASSESSMENT METHODS:**

Student performance may be assessed by examination, quizzes, case studies, oral conversation, group discussion, oral presentations. The instructor reserves the option to employ one or more of these assessment methods during the course.

### **GRADING SCALE:**

90%-100% = A 80%-89.9%= B 70%-79.9%= C 60%-69.9%= D <60% = E