

**GEORGIA PERIMETER COLLEGE**  
**DIVISION OF SCIENCE**  
**COMMON COURSE OUTLINE**  
**REVISION DATE: April 2005**

<b>COURSE ABBREVIATION</b>	GEOL 1121L
<b>CREDIT HOURS</b>	1 semester hour
<b>COURSE TITLE</b>	PHYSICAL GEOLOGY LABORATORY
<b>PRE-REQUISITES</b>	Exit or exemption from all Learning Support, and ESL requirements.
<b>PREREQUISITE OR CO-REQUISITE:</b>	GEOL 1121 (Lecture course)

**CATALOG DESCRIPTION**

This is a laboratory to accompany GEOL 1121. The laboratory provides practical experience in identifying common rocks and minerals, examining aerial photos and satellite images, and reading topographic and geological maps.

**EXPECTED EDUCATIONAL RESULTS:**

A student who successfully completes this course will be able to:

1. Make sight identifications of common rocks and rock-forming minerals.
2. Recognize and identify various physical properties exhibited by minerals.
3. Recognize the various textures and mineral components of rocks.
4. Read and interpret topographic and geologic maps.
5. Demonstrate knowledge and understanding of:
  - a. Geologic structures
  - b. Earthquake epicenter location
  - c. Geology of Georgia.
6. Recognize and identify various depositional and erosional features associated with streams and groundwater erosion.

**GENERAL EDUCATION OUTCOMES:**

- I. This course addresses the general education outcome relating to communications as follows:
  1. Students develop their reading comprehension skills by reading the textbook, handout materials, and/or web materials.
  2. Students develop their listening/communication skills through lecture and group problem solving. Course materials are presented that are not included in the textbook, and are included as part of the exams or tests. These materials are presented as lectures, handout materials, and/or web materials.
  3. Students develop their writing skills through a variety of assignments, tests, and quizzes.

4. Students develop their speaking/communications skills through class discussions, by asking questions in class verbally or through electronic media as well as interactions with their peers in and out of class.

II. This course addresses the general education outcomes of recognition and application of scientific inquiry as follows:

1. Students will develop their observation skills to be able to recognize and identify materials of the Earth, and the various geological features observed on topographic and geological maps.
2. Students will develop the skills of inquiry by use of the scientific method to experience, evaluate, and synthesize data as applied to various geological problems in identifying rocks and minerals as well as interpreting topographic and geologic maps.

III. This course addresses the general education outcomes of use of mathematical concepts to interpret, understand, and communicate quantitative data as follows:

1. Students will use their mathematical skills to convert measured distances from a map to actual distance, determine relief and gradient from a topographic map, and convert metric and English measurements.
2. Students will use their mathematical skills to be able to determine their progress in the course by calculating the average of the various grades they have earned within the course.

IV. This course addresses the general education outcomes for developing effective individual, and at times, group problem-solving and critical thinking skills as applied to geology.

A student will develop their ability to solve problems and think critically by applying their acquired knowledge of geology to identify, classify, and learn the rocks and minerals, as well as interpret topographic and geologic maps.

## **COURSE CONTENT**

### **I. Earth Materials**

- A. Minerals
- B. Igneous Rocks
- C. Sedimentary Rocks
- D. Metamorphic Rocks
- E. Volcanic ash

### **II. Maps and Earth Processes**

- A. Topographic map interpretation, including converting English and metric measurements, map scale, contours and contouring, and methods of locating features on the map.
- B. Structural Geology as observed and interpreted using geologic and topographic maps.
- C. Earthquake epicenter location and associated interpretations from seismic waves.
- D. Erosional and depositional features of streams.
- E. Erosional and depositional features of groundwater.
- F. Geology of Georgia, including the relationship of physiography with geology.

## **ASSESSMENT OF EDUCATIONAL OUTCOME OBJECTIVES**

### **A. COURSE GRADE**

1. Weekly lab assignments, quizzes, homework, and a final exam will be used to determine the final course grade. Other work that the individual instructor deems appropriate may be substituted for the above or added to the above assessment tools to determine the final course grade.
2. A College Geology Assessment Test will contain objective questions that will assess the educational outcome objectives for this course. Each instructor must include these questions on their final exam. Each instructor must tabulate the outcomes from these assessment questions, and sending the results to the Geology Assessment Coordinator.

### **B. PROGRAM ASSESSMENT**

This course will be assessed every semester. Common questions will be included in the final exam. The construction of these assessment questions will be the responsibility of the college-wide Geology Faculty Curriculum Committee. This Geology Faculty Curriculum Committee will meet every year to review the course and to evaluate the results from the prior year's assessment. This review will re-evaluate the assessment test, the teaching objectives, and Common Course Outline, and modify any or all of these. From this review of the course, modifications or changes to the course will be implemented.

*Last Revised April 8, 2005*