

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

COURSE ABBREVIATION	GEOL 1122L
CREDIT HOURS	1 semester hour
COURSE TITLE	HISTORICAL GEOLOGY LABORATORY
PREREQUISITE	Exit or exemption from all Learning Support, and ESL requirements.
CO-REQUISITE OR PREREQUISITE:	GEOL 1122 LECTURE

CATALOG DESCRIPTION

This is a laboratory to accompany GEOL 1122. The laboratory provides practical experience in studying sedimentary rocks to interpret depositional processes and environments, examining fossils and their use in age determinations, correlating rock units, interpreting geologic history from maps, and examining the regional geology of North America.

EXPECTED EDUCATIONAL RESULTS:

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

1. Recognize and apply the methods of scientific problem-solving and critical thinking.
2. Recognize and apply the major geological principles of Historical Geology.
3. Identify rocks and minerals and observe the effect of weathering on these materials.
4. Identify sedimentary rocks, and sedimentary structures, and interpret their depositional environment.
5. Identify and classify macrofossils and microfossils, and the modes of preservation.

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 skills through lecture and group problem solving and audio clips. Lecture material is presented that is not included in the textbook, handout materials, and/or web materials and is included as part of the exams or tests.
 3. Students develop their writing skills through a variety of laboratory assignments, tests, and quizzes.
 4. Students develop their speaking/communications skills through class discussions and/or web bulletin boards, by asking questions in class as well as interactions with their peers in and outside of class, and through electronic media.
- 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 geological features, Earth materials (rocks and minerals), and fossil organisms that lived on the Earth through its history.
 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 Sedimentary Rocks, Sedimentary Structures, and Fossils.
- III. This course addresses the general education outcome of developing effective individual and at times group problem-solving and critical thinking skills as applied to geology.
- A student will develop the ability to problem-solve and critically think by applying their acquired knowledge of geology to identify, classify, and learn the rocks and fossils, as well as interpret data for various historical geological problems.

COURSE CONTENT

- I. Historical Earth materials
 - A. Rocks and Minerals
 - B. Weathering of Rocks
 - C. Sedimentary Rocks
 - D. Sedimentary Structures
- II. Sedimentary Rock Record
 - A. Depositional Environments
 - B. Relative Dating
 - C. Stratigraphy and Lithologic Correlation
- III. Life on Earth
 - A. Invertebrate Macrofossils
 - B. Microfossils
 - C. Modes of Preservation
- IV. Optional Content
 - A. Sand Sieve Analysis
 - B. Biostratigraphy
 - C. Evolution
 - D. Introduction to Vertebrate Paleontology
 - E. Fossils on the Internet
 - F. Map Interpretation
 - G. Paleoecology
 - H. Midterm Exam

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.
2. A College Geology Laboratory Assessment Final Exam 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 send the results to the Geology Assessment Coordinator at the end of every semester by the due date for grades.

B. DEPARTMENTAL 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, modifications or changes to the course will be implemented.

Last Revised April 8, 2005.