Lab Manual: <u>Earth Materials Lab</u>, Bonnett and Sanderson Instructor: Dr. Ronald L. Martino, Office: 174 Science Building

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# **Course Description**

GLY 210L Earth Materials Laboratory 1 credit hour, Co-requisite course: GLY 110 or 200 An introduction to laboratory and materials as applied to the identification, classification, recovery and uses of earth resources.

# **Desired Learner Outcomes/Objectives:**

The goals are for each student to:

- 1) acquire hands-on experience in the description and identification of minerals, rocks, fossils (i.e. earth materials); also to become familiar with the economic uses of various minerals and rocks as well as the value of fossils in understanding the rock record;
- 2) develop the ability to read topographic maps, recognize landforms, use coordinate systems and map scales, determine slope and construct cross-sectional profiles.
- 3) develop an understanding of the relationship between geologic processes and the specific earth materials that they create.

### Lab Attendance/Participation

Attendance will be taken at the beginning of each lab. It is the responsibility of each student to inform the instructor of their presence should they arrive late. Attendance during quizzes is mandatory. Only legitimate excuses will be considered for missing a lab. These include verifiable medical, legal, or military reasons, death in the immediate family, or participation in institutional activities (debating, musical performances, athletic events) which are excused by the academic deans. Arriving late or cutting portions of the lab, or forgetting your lab manual will adversely affect attendance/participation grade for lab.

Reading assignments should be done before coming to lab. Preparation and active, constructive participation in lab exercises will maximize the participation portion of your grade.

# **Grading**

The final average will be calculated as follows: The lowest of quizzes 1-3 will be dropped; remaining quizzes = 25 % each. Quiz # 4 = 30 %; Attendance/Participation = 20 %

Final letter grades will be assigned as follows based on final average: A (90-100), B (80-89), C (70-79), D (60-69), F (<60). If you miss a quiz, it automatically becomes the one that is dropped. **There will be no make-up quizzes.** 

The attendance portion of att/part grade will be based on the number of unexcused absences (cuts). No cuts=100%; participation grade will depend on lab preparation, conscientious completion of labwork, and interaction in discussions. Attendance will count half and participation will count half of the att/part grade.

Any form of academic dishonesty that occurs will result in dismissal from the course prior to March 17, and an automatic final grade of "F" after this date. In both cases, a letter outlining the offense will be forwarded to the academic dean for consideration of further action (see p. 105-109, 2005-2007 Undergraduate Catalog).

#### **Course Outline**

<u>L</u> ab No	Topic	Reading _ Assignment	
1-3	Minerals	Ch. 2	
4QUIZ # 1: Minerals			
5-7	Igneous Rocks Sedimentary Rocks Metamorphic Rocks		
8QUIZ # 2: Rocks			
9-11	Topographic Maps (bring calculator)	Ch. 1	
Oct 27, 2006: last day to withdraw from an individual course			
_ 12 Quiz # 3: Topographic Maps			
13-14	Fossils	Ch. 7	
_ 15QUIZ # 4: Fossils			