# GLY 210L-101 EARTH MATERIALS LAB F-12

Meetings: Room S 167 Monday 1:00-2:50

Lab Manual: Earth Materials Lab, Bonnett and Sanderson

Instructor: Dr. Ronald L. Martino, Office: 174 Science Building

Office: S174; Hours: MW: 8-9, Tue 9-1, (appt. recommended)

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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), and measurement of mineral and rock properties such as

hardness and density; 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 area, slope, and construct cross-sections.

3) develop an understanding of the relationship between geologic processes and the

specific earth materials that they create.

Learning activities for objectives 1-3 will include lab exercises, readings, class discussions, review questions, and field trips and exams. Student achievement will be assessed through quizzes, lab exercises, class participation and class preparation.

**Lab Attendance/Participation**

Attendance will be taken at the beginning of each lab, unless there is a quiz that day. It is the responsibility of each student to inform the instructor of their presence should they arrive late. The attendance portion of att/part grade will be based on the number of unexcused absences (cuts). No cuts=100%. Attendance during quizzes is mandatory. Only university-excused absences will be accepted for missing lab. Arriving late or cutting portions of the lab, will adversely affect attendance grade for lab.

The lab participation grade will be based on active involvement in lab work and grades on lab exercises. Texting, sleeping, or other forms of inattentiveness, or forgetting your lab manual are examples of actions that will adversely impact your participation grade. In addition, copying the work of others will also negatively affect your participation grade and may be treated as academic dishonesty (see Grading). If you miss a lab, you must make up the work before coming to the next lab. Time extension for completion of exercises will only be allowed where university-excused absences are issued.

# Grading

The final average will be calculated as follows:

Each of the 4 quizzes will count 20%; Attendance and participation together will count 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).

Only a University Excused Absence will be considered a legitimate reason for missing lab or an exam, or for turning in assignments late. If you miss lab without a university excuse, you are still responsible for making up the work before the next lab. All makeup quizzes will be given on Mon, Dec. 10 at 3 pm .

Any form of academic dishonesty that occurs will result in dismissal from the course or an automatic final grade of “F” . In both cases, a letter outlining the offense will be forwarded to the academic dean for consideration of further action (see p. 67-71, Undergraduate Catalog (<http://www.marshall.edu/catalog/undergraduate/UG_12-13_published.pdf>.

# Course Outline (tentative)

Reading

Lab Number\_\_\_\_\_\_\_\_\_ Topic\_\_\_\_\_\_\_ Assignment\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1‑3 Minerals Ch. II

Mineral/Rock Density (handout)

\_\_4\_\_QUIZ # 1: Minerals and Density\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5-7 Igneous Rocks Ch. III

Sedimentary Rocks Ch. IV

Metamorphic Rocks Ch. V

\_\_ 8\_\_QUIZ # 2: Rocks\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9-11 Topographic Maps Ch. I

(bring calculator and pencil)

\_ 12\_\_ Quiz # 3: Topographic Maps\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

13-14 Fossils Ch. VI

\_ 15\_\_QUIZ # 4: Fossils\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**University Policies**

By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy be going to [www.marshall.edu/academic-affairs](http://www.marshall.edu/academic-affairs) and clicking on “Marshall University Policies.” Or, you can access the policies directly by going to <http://www.marshall.edu/academic-affairs/?page_id=802>

Academic Dishonesty/ Excused Absence Policy for Undergraduates/ Computing Services Acceptable Use/ Inclement Weather/ Dead Week/ Students with Disabilities/ Academic Forgiveness/ Academic Probation and Suspension/ Academic Rights and Responsibilities of Students/ Affirmative Action/ Sexual Harassment