**GLY 200 PHYSICAL GEOLOGY F-10**

**Text**: Physical Geology 13th ed., (2010) by Plummer, Carlson, and Hammersley

**Instructor**: Dr. Ronald L. Martino, Professor

**Office**: S174; Office **Hours**: Mon & Wed: 8-9, 12-1; Tue: 9-12 (appt. recommended)

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**Course Description**: Physical Geology, 3 credit hours,

3 lectures totaling 150 minutes/week

An elementary but comprehensive physical geology course that deals with the earth’s

origin, composition, tectonics and processes. Intended primarily for, but not limited

to, the science major.

Co‑requisite\*: GLY 210L Earth Materials Lab (\*depending on major)

# Desired Learner Outcomes/Objectives

The goals of this course are for each student to:

1) develop a basic understanding of how the earth works;

2) become familiar with the various types of internal and external geologic processes as

well as the earth materials that they create and modify through time;

3) develop an awareness of the impact of man's activities on certain geologic processes

and the importance of understanding these interactions to our own wellbeing; this should

enable students to make better‑informed decisions regarding a number of scientific,

technological, societal, and individual issues;

4) acquire an understanding of the interconnectedness of all sciences.

# Grading

The final average will be calculated as follows:

Drop low hour exam (Exam 1, 2, 3, or 4)

Remaining hour exams = 60 % (20 % each)

Final Exam = 25 %

Attend/participation = 15 %

An entrance assessment exam will be given on the first day of class to each student; extra credit points (their score/10) will be added to first exam. An exit assessment exam will be given immediately following the final exam; points will be added or subtracted from final exam based on performance (exit exam score-entrance exam score/4).

Final letter grades will be assigned on the basis of your final average as follows:

A (90-100), B (80-89), C (70-79), D (60-69), F (<60)

Since the lowest exam score can be dropped, there will be no makeup exams for any reason. If you miss an exam, it automatically becomes the one that you drop. If you miss any other exams, they will be counted as “0”.

Any form of academic dishonesty that occurs will result in immediate dismissal from the course or a 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. 102-106, 2009-2010 Undergraduate Catalog; (http://www.marshall.edu/catalog/undergraduate/ug\_09-10.pdf).

# Attendance/Class Participation

A daily record of attendance will be kept either 1) by taking roll during each class, or 2) through a sign-in sheet. Students are responsible for signing their own name. Signing another students name will be viewed as academic dishonesty. If a student comes in late, it is their responsibility to notify the instructor at the end of class. You will be asked to be prepared to discuss several questions for each lecture. These assignments help students keep pace with readings and better understand material discussed in lecture.

The attendance/participation average will be determined as follows:

1. 50% will be based on attendance; excused absences will be allowed for serious illness, death in the immediate family, military or legal obligations, or university activities that excused by the academic deans. Lateness, or cutting class or portions of class will reduce the attendance/ participation grade. If you have a valid reason for missing class, please be sure the instructor is informed. Attendance grade will reflect number of cuts; no cuts=100%.
2. 50% will be based on your participation in class discussions, and possible quizzes and homework assignments. You can maximize this portion of your grade by keeping up with assigned readings and review questions, and actively and constructively contributing to class activities.

**Course Outline**

Week Topic Reading Assignment

1 Introduction to Physical Geology C. 1

2 Atoms, Elements, & Minerals C. 2

3 Origin Igneous Rocks, Intrusive Activity C. 3

\_\_ 4\_\_\_\_EXAM # 1\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5,6 Volcanism & Extrusive Igneous Rocks C. 4

7 Sediments & Sedimentary Rocks C. 6

8 Metamorphism & Metamorphic Rocks C. 7

\_\_\_\_\_\_EXAM # 2\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9 Weathering & Soils C. 5

10 Mass Wasting C. 9

11 Groundwater C. 11

\_\_\_\_\_\_EXAM # 3\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

12 Geologic Structures C. 15

13 Earthquakes C. 16

14 Global Tectonics C. 19

\_\_\_\_\_\_EXAM # 4\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

15 Glaciers & Glaciation C. 12

\_\_\_\_\_\_FINAL EXAM\* (comprehensive), Dec 10, 8:00 AM\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\* The final exam will be based 50 % on last block of material and 50 % comprehensive (i.e. on main ideas from earlier blocks).

**Websites of interest:** [www.usgs.gov](http://www.usgs.gov) (U.S. Geological Survey);[www.agi.org](http://www.agi.org). (American Geological Institute); [www.geosociety.org](http://www.geosociety.org) (Geol. Society of Am.)