**GLY 200 PHYSICAL GEOLOGY F-17**

**Class Time/Location:** MWF:9-9:50, S276

**Text**: Physical Geology 15th ed., by Plummer, Carlson, and Hammersley

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

**Office**: S174

**Office Hours**: M,W, F: 10-11, Tue: 9-1 (appt. recommended)

**Phone:** 696‑2715 **E‑mail**: martinor@marshall.edu

**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.

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

# Course Objectives/Methods of Assessment

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| **Course Objective** | **Student Activity** | **Assessment Tool** |
| Develop a basic understanding of how the earth works | Reading, homework, lectures,  class discussion; hands-on lab experience (optional) | Exams, Class Participation, Homework |
| 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; | Reading, homework, lectures,  class discussion | Exams,  Class Participation, Homework |
| 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; | Lectures,  class discussion,  field trips | Exams,  Class Participation, Homework |
| Acquire an appreciation for the dual role of geologists in our society; this involves the maintenance of the resource base on which society depends, and the monitoring and limitation of the impact of resource extraction and consumption on the environment. | Class interaction, readings,  field trips | Class Participation, Exams,  Homework |
| Acquire an understanding of the interconnectedness of all sciences. | Class interaction, readings,  field trips | Class Participation, Exams,  Homework |

# Grading

The final average will be calculated as follows:

Hour exams 1,2,3,4 = 20 % each (lowest one will be dropped)

Final Exam = 25 %

Attendance = 7.5 %

Participation = 7.5%

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)

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).

Only a University Excused Absence will be considered a legitimate reason for missing class. Since the lowest exam is dropped, there will be no makeup exams for any reason. 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. For further information on academic dishonesty penalties see <http://www.marshall.edu/catalog/files/UG_16-17_published_08-25-16.pdf>.

# Attendance

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 (i.e. later than 9:00), it is their responsibility to notify the instructor at the end of class. 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 grade by 50% for that day. If you have a valid reason for missing class, please be sure the instructor is informed as soon as possible. Attendance grade will reflect number of cuts. Each unexcused absence will reduce attendance grade by 5 %. If you miss class 5 times without an accepted excuse, your grade will be 75%. If you cut 3 classes and are late for 2, your attendance grade will be 80.

**Class Participation**

Your participation grade will be based on your ability to contribute to class discussions, homework assignments, and possible quizzes. You will be assigned several questions for each lecture. These assignments help students keep pace with readings and better understand material discussed in lecture. You can maximize your participation grade by keeping up with assigned readings and review questions, and actively and constructively contributing to class activities. Cell phones should be turned off and put away during class to avoid participation penalty. If you use your phone during class you will be asked to leave and receive a 0 for attendance and participation that day. Unexcused absences will also diminish your participation grade. Homework assignments are due at 9:00 of the day they are due. None will be accepted after this time unless you have an approved excuse. The lowest homework grade will be dropped. If you miss turning in an assignment, it becomes the one that is dropped. Additional missed assignments will be counted as 0 toward your homework average. If you are having difficulty with an assignment email me anytime and I will help you get on track.

**Course Outline**

Week Topic Reading Assignment

1 Introduction to Geology, Concepts C. 1

2 Atoms, Elements, & Minerals C. 2

3 Origin Igneous Rocks, Intrusive Activity C. 3

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

5 Volcanism & Extrusive Igneous Rocks C. 4

6 Sediments & Sedimentary Rocks C. 6

7 Metamorphism & Metamorphic Rocks C. 7

\_\_ 8\_\_\_ 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), Friday Dec 15, 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.) : MU Geology Dept: <http://www.marshall.edu/geology/>.

Jobs for Geoscientists: <https://www.bls.gov/ooh/life-physical-and-social-science/geoscientists.htm>.

**University Policies**

By enrolling in this course, you agree to the following University Policies:

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

Please read the full text of each policy by going to [www.marshall.edu/academic-affairs](http://www.marshall.edu/academic-affairs)/policies/.