

Course Syllabus
Structural Geology – GLY 313
Prerequisite: GLY 110 or 200
Dr. Dewey D. Sanderson
Fall 2008

Office: Science 163

Contact Information: sanderso@marshall.edu, 696-5435

Office Hours: 11-12:30, M,W, F; 10-2, T

Grade Scale: 90's – A, 80's – B, 70's – C, 60's – D, <60 - F

Tests: There will be three tests during the course of the semester for the lecture component of the course, the third test being the final exam during final's week. There will be a final in the lab Dec. 8. Makeup tests will be arranged as necessary. Tests are announced one week in advance. Format of the test will be short answer, fill in the blank and interpretation and/or solution of graphical structural problems.

Grade Determination: The lowest of the three lecture test scores will be weighted half that of the two higher test scores. The lab will be a series of ten point exercises and a 30 point test. The lab exercises and lab test will be averaged. The lecture and lab averages will be combined to give a course average on the following basis. If the lecture average is higher, the lecture is weighted 75%, the lab 25%. If the lab average is higher, the lecture is weighted 67% and the lab 33%.

Attendance: There will be no bonus or penalty associated with absences. It will be the student's responsibility to find out what was covered and/or assigned during his/her absence. Lab exercises not turned in on time will have a penalty of one-half point per day deducted.

Course Objectives: To provide the fundamentals of how earth materials behave to stresses within the earth and to study the resulting features. To see what structural features tell us about the geologic past and what will be happening in the future. To develop the ability to visualize, depict and interpret the three dimensional features associated with structural geology.

Text: Structural Geology, George Davis and Stephen Reynolds

Topics and Readings:

- I) Scope of Structural Geology: Preface, Chap. 1
- II) Physical Principles: Chaps. 2, 3, 4
- III) Folds: Chap. 7

Test 1

- IV) Joints and Fractures: Chap. 5
- V) Faults: Chap. 6

Test 2

- VI) Metamorphic Structures and Features: Chap. 8

VI) Plate Tectonics: Chap 10

Final Exam on Dec. 15 @ 10:15

Lab: The lab will consist of a series of geometric drawings solving various structural geologic problems. Geologic maps will be investigated to determine the depositional and structural history of selected areas in the U.S. There will be a test during the last lab.

Learning Outcomes: To be able to recognize, analyze and classify depositional and structural features common to all classes of rocks as to their structural history, relationships and stresses which created them.

Cheating: Cheating on an exam will result in a "0" on that exam which will be used in calculating the final course average.

Fieldtrip Option: There will be a fieldtrip to the Canaan Valley area in October which will commence leaving campus on Friday afternoon and returning Sunday afternoon. A possible four points will be added to your final class average. Two points for going on the trip and two points from a quiz about the geology.