

**Class Meets:** MWF, 10:00-10:50am, Science Building 276

**Text:** Physical Geology, Plummer, Carlson & Hammersley, 14th edition  
[http://connect.mcgraw-hill.com/class/b\\_niemann\\_spring2014\\_mwf\\_1000-1050am](http://connect.mcgraw-hill.com/class/b_niemann_spring2014_mwf_1000-1050am)

**Instructor:** William (Bill) L. Niemann, P.G., Ph.D., E.I.T.

**Office:** 171 Science Building

**Phone:** 696-6721 (W)

**Office Hours:**

- M/W/F, 11:00-11:30am (after class)
- M, T, 2:00-4:00pm
- R, 11:00-12:00am
- By appointment or by chance

e-mail: [niemann@marshall.edu](mailto:niemann@marshall.edu) ; web: <http://www.science.marshall.edu/niemann/>

### **Course Description**

- Physical Geology: 3 credit hours, 150 minutes, per week.
- An elementary but comprehensive course in physical geology designed primarily for science majors.
- Co-requisite (depending on major): 210L (Earth Materials Lab).

### **Course Learning Objectives**

The goals of this course are for each student to:

- Develop an understanding of the earth's origin, composition, structures, tectonics and processes.
- Develop an awareness of the extent to which our modern industrial society relies on geologic resources to maintain current standards of living.
- 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.

### **Relationship of Course to Departmental Goals**

This course primarily serves science and engineering majors who need or desire a comprehensive course in physical geology. It is the appropriate beginning class for students planning a major in geology. The course secondarily serves non-science majors who need a 3-hour class in the natural sciences. The importance of the natural sciences to students pursuing degrees in both scientific and non-scientific disciplines can be appreciated by recognizing that geology is in many ways a cornerstone of our society. Our way of life depends on geologic resources, and our ability to sustain mankind depends on a thorough understanding of how our activities impact the environment around us. The water, soil, air upon which we depend is primarily the product of ongoing geologic processes.

## **My Teaching Philosophy**

- A good instructor doesn't so much deliver course content to students as provide the best opportunity for them to learn it themselves. For the student this means reading and studying material outside of class, listening and taking notes during lectures, and participating faithfully in the interactive exercises used in class such as discussion, quizzes etc. Following this philosophy, I consider myself a *facilitator* who will record exam and course grades based on your attainment of the course objectives, not a professor who simply "gives" grades to students.
- In this course you will be challenged to see the relevance of geology to your life. You may be surprised to find how much you depend on geologic processes and materials and, conversely, how they can threaten your property, health and even your life.
- My prediction: If you are not looking forward to this course, I am confident that by the end of the semester you will at least admit that it was more interesting than what you had anticipated, and may even say it was enjoyable and stimulating. A few of you may even decide to major in geology based on your experience in this course!

## **Assessment of Learning**

- **Exams.** Eighty percent (80%) of your grade will be based on three, one-hour, in-class exams, scheduled approximately every five (5) weeks throughout the course (see course schedule below). The third exam will not be comprehensive but will be given during finals week.
- **Quizzes** Twenty percent (20%) of your grade will be based on quizzes administered on-line at a web portal specific to this class and hosted on the McGraw-Hill website (see address above under "Text"). ***All quizzes must be completed by 11:59 pm on the due date***, which will be announced in class at least five days in advance.

## **Grading Policy**

The following scale will be used for mid-term and final grades. Note that numerical scores and not letter grades are assigned for all individual exams, quizzes and homework assignments.

<u>Final Average (%)</u>	<u>Grade</u>
90-100	A
80-89	B
70-79	C
60-69	D
0-59	F

### **Grading Policy (cont.)**

- ***Note that the some or all of the above grade boundaries may be adjusted downward based on overall class performance. If such as an adjustment is made, it will benefit students "on the bubble." In no case will the boundaries be adjusted upward.***
- ***Students with three or less unexcused absences (see attendance policy below) will be rewarded by having their lowest exam score weighted as half that of the other two exams.* For these students the two highest exams will be worth 32% of the final grade, and the lowest exam worth 16% of the final grade ( [2 x 32%] + [1 x 16%] = 80% ). For all other students, each of the three exams will count as 26.7% of the final grade ( 3 x 26.7% = 80% ).**

### **Attendance Policy**

- ***A daily record of attendance will be kept by circulating a sign-in list at the beginning of each class. It is the responsibility of each student to sign the list, and if late to sign the list or notify the instructor at the end of the lecture. Failure to do so may result in an official absence for that lecture. Arriving late or leaving lecture early may reduce or void credit for attendance for that day.***
- ***Absences may be excused for serious medical or legal reasons, military obligation, or university activities excused by the academic deans. Notice of an excused absence must be received by the instructor through the office of the Dean of Student Affairs (see pages 83-84 of 2013-2014 MU Undergraduate Catalog). The current Dean of Students is Steve Hensley, located on the second floor of the Memorial Student Center (2W38), 304-696-6423 or [hensley@marshall.edu](mailto:hensley@marshall.edu).***
- ***In the case of an excused absence, any material missed can be completed, without penalty, by a later date assigned by the instructor. Failure by the student to complete the material by the assigned date will result in a zero for the assignment in question. The instructor may instead opt to assign a "no-grade," without penalty to the student, for missed material as a result of the absence.***
- ***There will be no makeup exams without an official excused absence from the Dean of Students.***
- ***Note that extreme weather could result in closure of the university and cancellation of class (see page 67-68 of the 2013-2014 MU Undergraduate Catalog). In some cases, university offices could remain open but classes would be cancelled. If the weather looks bad, check your e-mail and listen for announcements on local radio and TV.***

### **Extra Credit**

- ***To allow motivated students a chance to improve their course grade, multiple opportunities will be available to earn additional points outside of normal class time. Extra credit will be awarded only for the organized field trips, movies/videos, Learn Smart study modules, or other organized group activities approved by the instructor. Filed trips typically occupy approximately 3 hours each and videos***

are generally available through an on-line link. In past semesters field trips have been scheduled on weekday afternoons and Saturdays.

- Field trips and movies/videos will generally be worth a maximum of 10 and 5 exam points, respectively. The actual points earned for each activity will be based on performance on an open-book quiz or other means of assessment after the activity. ***Students may earn a maximum of 10 extra credit points from these activities, or 15 points if one of the activities is a field trip.*** A student earning 15 extra credit points from field trips and movies/videos will raise their total percentage points toward the final grade by a maximum of 2.4% (see example below).
- In order to accommodate the varying schedules of approximately 200+ students in multiple introductory geology sections each semester, multiple field trips will be scheduled so that students who may not be able to attend one activity can attend a different activity.
- In addition, a total of up to 17 extra credit points (a maximum of 2.7% towards final grade) will be awarded for all correct answers on the exit exam, to be given during one of the final regular class meetings.
- Each extra credit point is equal to  $\frac{1}{2}$  of an exam point. All extra credit earned is added to the total of the two higher exam scores.
- Example calculation of extra credit and application to final grade: Hal Herd completed two extra credit activities. His quiz scores for one field trip and one video (7/10 and 5/5), have earned him 12 extra credit points. We also add the results from Hal's entrance/exit exams, on which he scored an adjusted score of 16. Since Hal's class attendance is good (see attendance policy), he is allowed to weight the lowest of his exam scores as half of the other two. In Hal's case, he has scored 72, 85 and 92 on the three exams, so we add the extra credit  $\frac{1}{2}(12 + 16) = 14$  to the total of the two highest exam scores ( $85 + 92 + 14 = 191$ ). Now we calculate Hal's exam average as  $[(191 + 0.50 \cdot 72) / 2.5] = 90.8\%$ . The exams are 80% of the final grade and the quiz average is 20% of the final grade. Assuming Hal's quiz average is 88%, his final grade is calculated as  $[(0.80 \cdot 90.8) + (0.2 \cdot 88)] = 90.2$  Hal earns "A" grade for the course. Way to go, Hal, and thanks for playing! Note that without the extra credit, Hal's overall average would have been 85.8% and he would have earned a "B" for the class. With the extra credit but with poor attendance, Hal's overall average would have been 87.7% and he also would have earned a "B" for the class. ***One of the lessons here is that extra credit points are worth more when coupled with good attendance.***

### **Electronic Devices**

***Be courteous: turn your phones off when in class. With the exception of basic-function calculators, use of any electronic devices during an exam will be considered evidence of cheating.***

## **University Policies**

By enrolling in this course, you agree to the University Policies listed below. The full text of each policy can be viewed by 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](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*