SYLLABUS EEES 1010-002 – PHYSICAL GEOLOGY Fall Semester 2015

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530-2009

Class Times: Monday and Wednesday 12:30-1:45 BOL 1049 (Bowman-Oddy)

Office Hours: Monday 9-Noon and Wednesday 10-Noon Other times by appointment

Bowman-Oddy 3022

Textbook: *Physical Geology* by Plummer, Carlson & Hammersley; 15th edition is most recent Course materials, summaries of topics, and activities will be posted on Blackboard Copies of the textbook will be on reserve in Carlson Library (1st floor, desk to right of entrance)

The following is a **TENTATIVE** schedule of the topics to be covered this semester. However, since we are actively transforming this course, changes are likely during the semester. This syllabus will be updated on the Blackboard site, with announcements sent to enrolled students, when necessary.

	Lecture Topics	Reading Assignment
Aug. 24	Introduction	
26	Earth Systems	Chapter 1
31, Sept. 2	Origins / Solar System / Deep Time	Chapter 23
9, 14	Earth Interior / Plate Tectonics	Chapters 17, 1 (overview)
16, 21	Plate Tectonics / Review	Chapter 19 (details)
23	FIRST EXAM (15% of course grade)	
28	What is the Earth made of?	Chapter 2
Oct. 5	Fall Break No Class	
30, Oct 7	Atoms to Minerals to Igneous Rocks	Chapters 2, 3
12, 14	The Rock Cycle & Igneous Rocks	Chapter 3
19	Volcano Basics / Review	Chapter 4
21	SECOND EXAM (15% of course grade)
26,28	Volcanic Hazards	Chapter 4
Nov.2, 4	Earthquakes / Tsunamis	Chapter 16
Nov. 11	Veterans Day No Class	
9, 16	Breaking Down Rocks - Weathering,	
	Sedimentary Rocks	Chapter 5, 6
18, 23	Surface Processes – Rivers & Flooding	Chapter 10
25	Thanksgiving Holiday No Class	
30	THIRD EXAM (15% of course grade)	
Dec. 2	Surface Processes Groundwater	Chapter 11
7	Geologic Time	Chapter 8
9	Course Overview Big Questions in Geology	
14	FINAL EXAM (12:30-2:30) (25% of course grade)	

PHYSICAL GEOLOGY - COURSE INFORMATION & POLICIES

Course Description from University Catalog:

Introduction to classification and origins of rocks and minerals, surficial processes and landscape development, groundwater and other natural resources, geologic structures, earthquakes and the Earth's interior, plate tectonics, and geologic time.

This course fulfills the State Distributive Requirement for Natural Sciences. This course is currently on both the Ohio Transfer Module and the Transfer Assurance Guidelines (TAGs) course lists. This is a UT General Education course and does not have prerequisites.

Students are strongly encouraged to take EEES 1020 Physical Geology Laboratory along with Physical Geology. EEES 1020 satisfies the State Distributive Requirement for a Natural Sciences Lab.

This course addresses two of the Learning Objectives of the UT Core Curriculum:

- (1) Scientific and Quantitative Reasoning and Literacy, and
- (2) Critical and Integrative Thinking

Contacting the Instructor

Students are encouraged to ask questions during class, and are welcome to ask questions after class. The instructor's office hours are Monday 9-Noon and Wednesday 10-Noon for students to stop by and ask questions. Other times are available by previous arrangement. Email is an efficient way to ask questions. To avoid problems with virus and spam filters, students **MUST** use their University of Toledo email account and put "Physical Geology" in the header. Make sure that the wording of the question is clearly related to this course.

Goals for This Course

- Students will develop an understanding of the nature of science in general and of major concepts in Earth Science, including the internal structure of Earth, plate tectonics, and the hydrologic cycle.
- Students will analyze and evaluate scientific information, specifically though in-class activities and homework exercises, in which students extract information from maps, graphs and other tools commonly used by scientists.
- Students will be exposed to discipline-specific principles and fundamental information about Earth materials and processes to develop an understanding of how the Earth works as a system.
- Students will be able to apply rational methods to identifying potential natural hazards and reducing risk associated with exposure to those hazards. These approaches are key to the contribution of the discipline of geology to society in general.
- Students will apply scientific reasoning to solve complex problems in case studies.

Attending Class

Class attendance is critical to your success in every course. **I expect you to be in class.** Part of your grade is based on class attendance. The University of Toledo has a very specific policy on what constitutes a legitimate absence. Link to <u>UT Missed Class Policy</u>.

IF you miss class for a legitimate reason, you **MUST** send me an email as soon as possible. That email notice also will allow you to make up any activities that you missed.

Exams and Grading

The course grade will be determined by three exams during the semester, each 15% of the final grade consisting of around 50 questions which may include short answer, fill-ins, matching, and true-false options; one final exam worth 25% of the final grade also consisting of short answer, fill-ins, matching, and true false questions; and 25 % from homework and in-class activities. 5% of the course grade is at the discretion of the instructor, which includes class attendance.

All exams are closed – no books, no notes, no electronic devices of any kind, including calculators, cell phones, and tablets. Each student needs to bring at least one no. 2 pencil to the exam.

Exam grades will be A, A-, B+, B, B-, C+, C, C-, D+, D, D-, or F. Grades will be curved as determined by class performance.

In-class quizzes and activities are 25% of the grade. Students may make-up in-class quizzes and activities ONLY for an excused absence – otherwise, if the student is not there, he or she does not get credit for the activity. Some of the activities assigned in class may be take-home or require use of the Internet; these generally will be due the next class period.

Other than the exams and activities stated above, there are **NO extra-credit points or projects**.

Schedule Conflicts or Missing an Exam

If you know before the day of the exam that you have a schedule conflict at the time of the exam, contact the instructor *before* the day of the exam to arrange to take the exam at the Test Center.

If the student misses the exam because of an emergency that happens on the day of the exam, *the student must contact the instructor that day*, as soon as possible, to arrange for a make-up exam at the Test Center. Refer to the University of Toledo policy on missed classes for what constitutes an excused absence. Send an email message to the instructor stating the reason for the absence and requesting a make-up. The student must take the exam within one week of the original exam date, or the student will receive a score of 0 (zero) for that exam.

If the final exam is not taken, a score of 0 (zero) will be calculated into the final grade for the course.

All make-up exams will be taken in the Main Campus Test Center, which is in room 1080 of the Memorial Field House. Hours of operation: Monday, Tuesday & Friday, 8:30 am to 4:45 pm; Wednesday & Thursday 8:30 am to 7:45 pm. Phone: 530-2011. Students are required to show a University ID.

Website: http://www.utoledo.edu/call/testingservices/MCtestcenter.html

Make-up exams may be different from the original exam.

To check the time and date of any final exam, enter "exam schedule" into the UT search:

http://www.utoledo.edu/offices/registrar/exam_schedules.html

Withdrawing from the Course

The individual student is responsible for making the decision to withdraw from a course. For Fall 2015, the last day to drop a course is October 30. Grades from the first two exams and several activities should be available to the students by the deadline to withdraw.

An Incomplete (IN) grade will be given only in exceptional circumstances that prohibit the student from completing course requirements. The student must request an IN *before* the final exam. The instructor

requires that all incomplete coursework be completed before the end of the fourth week of the following full semester (that is, spring or fall semester, not counting summer).

An important comment about full-time status as a student: To receive financial assistance, a student must maintain a minimum of 12 credit hours for the semester. This means that if you drop a course and your total number of credit hours falls below 12, you will lose financial assistance. At the start of the semester, be realistic about your course load and your work schedule. Stay on track to pass ALL your courses.

Having Difficulty with the Course

In any college course, if you are having difficulty with the material, ask for help sooner rather than later. In large introductory classes, the instructor has limited time to help individual students, however, the University provides study-guidance and tutorial services. Please take advantage of these services.

The UT Division of Student Success (with many support programs): http://www.utoledo.edu/success/index.html

The UT Learning Enhancement Center (Carlson Library, Lower Level) http://www.utoledo.edu/success/lec/index.html

The UT Writing Center (Carlson Library, First Floor, east side of building) http://www.utoledo.edu/success/writingcenter/index.html

Always a good option: If you did not understand a concept presented in lecture, read the section of the textbook on that topic, then ask a question next class period. If you did not understand something, chances are good that others in the class didn't get it either.

Additional Student Support Services

The University Libraries

http://www.utoledo.edu/library/

The UT Counseling Center

http://www.utoledo.edu/studentaffairs/counseling/

Success Coaches

http://www.utoledo.edu/successcoach/index.html

UNIVERSITY POLICIES

The University of Toledo is an equal opportunity educational institution, and complies with Federal requirements of the Americans with Disabilities Act. Link to the <u>UT Policy on non-discrimination</u>.

The University of Toledo is committed to providing equal access to education for all students. If you have a documented disability or you believe you have a disability and would like information regarding academic accommodations, refer to the Student Disability Services website: http://www.utoledo.edu/offices/student-disability-services/index.html

Undergraduate Academic Policies http://www.utoledo.edu/policies/academic/undergraduate/

HOW TO DO WELL IN THIS COURSE

"Philosophical" Points

Understand this distinction:

The instructor does not *give* the student a grade, the student *earns* a grade for the course.

You alone are responsible for your performance in college.

This is a great opportunity, make the most of it.

Reward is proportional to effort. (Your grade will reflect the amount of work devoted to the course.)

Take coursework seriously.

Develop discipline and good study habits.

Learn to avoid or ignore all those wonderful opportunities for recreation.

Learn to focus. Don't even attempt to multi-task while studying. (You're kidding yourself if you think that you can.)

When studying: Turn off the cell phone, don't get on the internet, don't look at email, don't text message, stay off the social network sites.

A person's capacity for deep concentration and problem solving drops by the equivalent of 30-40 IQ points when multi-tasking, and retention of information (memory) plummets by about 75%.

Quiet time to think. Let your subconscious mind absorb all those new ideas and internalize information.

Consistency counts. A moderate work rate throughout the entire semester is most effective. Do NOT try to cram the night before an exam. There is an enormous difference between rote memorization and understanding.

Plan ahead (time management). Make a schedule for each month of the semester with exam dates and deadlines. Make a schedule for each week, blocking out time to study for each course.

Practical Points

Come to class. Pay attention. Take notes.

Print the presentation summaries posted online and bring them to class.

Read the assigned chapters in the textbook.

Review the summary, terms, and questions at the end of each chapter.

*** Work together in study groups of 2-4 students ***

Rule of Thumb: How many hours studying for each hour of class time?