

**ESS 315/POE 313 Environmental Geology
Winter 2010**

Instructor: Terry Swanson
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Office Hours: M 1:30-2:30 pm & F 9:00-10:00 am (or by appointment)

Text: *Geology and the Environment* B.W. Pipkin and D.D. Trent, Wadsworth Publishing. Fourth/Fifth Edition

Grades: Your grade will be determined as follows:

Lab Exercises	80 points
Mini-lectures	10 points
Debate	20 points
Field Report	60 points
Midquarter Exam	110 points
Final Exam	<u>120 points</u>
 TOTAL	 400 points

The midquarter exam will be short answer essay and the final exam will be multiple choice. Both examinations will cover material from lecture and the text. Each examination will cover one half of the course material. Small group debates will be conducted during the last laboratory session of the quarter. The class will decide the debate topic early in the quarter.

Laboratory: The laboratory is intended to introduce you to the practical applications of environmental geology through lab exercises and assignments. You are expected to attend all weekly laboratory sessions. **You cannot complete this course without completing the lab.**

Honor System: Rather than spend time trying to devise special tests, hire proctors, or compare papers, we have instituted an Honor System in this class: **Students pledge to do their own work on assignments and tests.** You may find that we are much more respectful and trusting of you compared to some other classes; please do not violate that trust by asking others to supply you with assignment and/or test answers.

Student Assistance: My office hours are given above; however, if you are unable to make either of the above times, then **please feel free to make an appointment with me.**

Field Trips: A program of **2 weekend field trips** will be offered this quarter (Saturday, February 13th or Saturday, February 20th). **Each student must attend one of these field trips.** An additional field trip will be offered for extra credit to a region of environmental significance. There will be a field consulting report related to the field trip portion of this class and it will represent 60 points of the grade. There is no substitute for seeing geology first hand, so we encourage you to take full advantage of these opportunities. Field trips will leave from the “round-a-bout”, northwest of Johnson Hall.

LECTURE SCHEDULE

	TOPIC	READINGS
Weeks 1-5	Introduction to Environmental Geology Tectonic Hazards and Risks Tsunamis Volcanic Hazards and Risks Soils and Soil Erosion Slopes and Slope Hazards	Ch. 1 & 2 Ch. 3 & 4 ; special paper Ch. 4; special paper Ch. 5; special paper Ch. 11 special readings Ch. 7; special readings
Wednesday	February 10th Midterm (in class)	
Weeks 6-10	Groundwater Runoff Streams and Flooding Earth Resources and their Use -Mineral Resources -Energy Atmosphere, Oceans and Climate Change Waste Disposal	Ch. 8 special readings special readings Ch. 9; special readings Ch. 13 Ch. 14 Ch. 11; special papers Ch. 15
Thursday	March 18th Final Exam (in class) 8:30 am-10:20 am	