

**ESS 315/Envir313 Environmental Geology
Winter 2019**

Instructor: Terry Swanson
Office: 161 Johnson Hall
Email: tswanson@uw.edu; **Web:** pita.ess.washington.edu/tswanson
Office Hours: M 3:30-4:20 pm & W 1:30-2:20 pm (or by appointment)

Text: *Geology and the Environment* B.W. Pipkin and D.D. Trent, Wadsworth Publishing. Any edition will work (google search and get best price).

Grades: Your grade will be determined as follows:

Lab Exercises	105 points
Mini-lectures	20 points
Debate	20 points
Field Report	50 points
Midquarter Exam	100 points
Final Exam	<u>105 points</u>
 TOTAL	 400 points

The mid-quarter 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 23rd and Saturday, March 9th**). **Students must attend 1 of these field trips.** There will be a field consulting exercise related to each field trip and will represent 50 points (30 points fieldwork; 20 points written report assessment) of your grade. If a student attends both field trips, he/or she will be given 10 extra credit points. Student will be required to only complete 1 field exercise. 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 Hazards and Risks Volcanic Hazards and Risks Slopes and Slope Hazards	Ch. 1 & 2 Ch. 3 & 4 ; special paper Ch. 4; special paper Ch. 5; special paper Ch. 7; special readings
Friday	February 8th 12:30 – 1:20 pm	Midterm (Jhn 175)
Weeks 6-10	Soils and Soil Erosion Groundwater Runoff Streams and Flooding Earth Resources and their Use -Mineral Resources -Energy Atmosphere, Oceans and Climate Change	Ch. 11 special readings Ch. 8 special readings special readings Ch. 9; special readings Ch. 13 Ch. 14 Ch. 11; special papers
Friday	March 15th 12:30 – 1:20 pm	Final Exam (Jhn 175)