

ESS 302/433 Autumn 2009

Instructor: Terry Swanson
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Office Hours: Monday 2:30-3:20 pm Friday 9:30-10:20 am.

Text: *Quaternary Environments* Williams *et al.* 1998. Arnold Publishing (2nd edition)

Grades: Your grade will be determined as follows:

Laboratory (JHN 127)	100 points (8 labs) ESS 302 only
Seminar (JNN 027)	100 points (presentation/exams) ESS 433 only
Field Report	60 points ESS 302/433
Midquarter Exam	120 points (ESS 302/ESS 433)
Final Exam	<u>120 points</u> (ESS 302/ESS 433)
TOTAL	400 points

The midquarter exam will be short answer and essay type questions. Both examinations cover material from lecture and the text. The final examination will be multiple choice and will give greater emphasis to material covered in the second half of the quarter.

Laboratory (ESS 302) /Seminar (ESS 433): The laboratory/seminars are intended to introduce you to the practical applications of geology through group lab exercises and primary journal reading and discussions. You are expected to attend all weekly laboratory/seminar sessions. **You cannot complete this course without completing the lab/seminar.** Your instructor will discuss his/her lab schedule at the first lab meeting. Labs commence during the second week of the quarter.

Lab Fee: A lab fee has been assessed to your tuition bill to cover the expenditures for van rentals for field trips, and miscellaneous lab supplies.

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. Cheating will be dealt with harshly. **We will go out of my way to help you learn, so please take advantage of our enthusiasm and not our trust!**

Student Assistance: My office hours will be flexible to accommodate your varied schedules. Your lab instructor will also hold office hours to assist you with problems.

Field Trips: A program of 2 weekend field trips will be offered on certain weekend days. You will receive 40 points credit for attending at least one of these field trips and writing a scientific field report on your field work.

LECTURE SCHEDULE

	READING	TOPIC
Weeks 1-5	Assigned Readings:	Introduction to Ice Ages; Glacial Theory
	Assigned Readings: Ch. 1, 2 & 3	Glaciers and Glaciation Glacial Landforms and Materials -erosional -depositional
	Ch. 2, 4 & 5 Assigned Readings 3:	Causes of Glaciation -terrestrial -celestial
	Ch. 1 & Ch. 2 (pp.38-86) (pp. 86-96)	Ancient Ice Ages (Pre-Pleistocene) Pleistocene Glaciation Holocene Interglaciation
	Ch. 3; Appendix Assigned Readings:	Ice Age Chronology Dating Methods
Midterm	Wednesday November 4th (in class)	
Weeks 6-10		Evidence for Past Climatic Change
	Ch. 2:	Ice Core Records
	Ch. 6:	Sea Level Changes
	Ch. 7:	Evidence from Oceans
	Ch. 8 & 9:	Terrestrial Record Lakes, Rivers, Groundwater, and Arid Regions
Ch. 10:	Terrestrial Flora and Fauna	
Ch. 12:	Global climate models and atmospheric circulation	
Ch. 13:	Future environmental change	

	Final Exam - Thursday December 17th 8:30-10:20 am (in class).	