

SYLLABUS
USU 1360, sec. 1: Planet Earth
MWF 9:30-10:20, room EC 106
http://www.usu.edu/planetearth

INSTRUCTOR

Dr. Joel Pederson
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OFFICE HOURS: 10:30-11:30 Mon.
10:30-11:30 Wed.
1:00-3:00 Thur.

TEXT

The Blue Planet 2nd edition (Skinner, Porter, and Botkin, 1999)

OBJECTIVES

An introduction to Earth System Science, which encompasses the interacting geologic, hydrologic, biologic, and atmospheric processes that define how our planet works. We will learn about how the planet works, how to critically think about scientific knowledge and research, about the past and present of northern Utah, and about environmental and natural hazard issues that affect you and me.

GRADING

3 exercises:	3 X 25 pts.	= 75 pts.
3 exams:	3 X 100 pts., worst exam dropped	= 200 pts.
Final, partly comprehensive		= 100 pts.
		375 pts.

*Important: There will be **no** make-up exams or exercises, though exams can be taken ahead of time if needed.*

HOW TO DO WELL IN THIS CLASS

1. Come to class. For several reasons, attendance is very well correlated to the grade you receive—especially in this course.
2. Use the class webpage. The entire course is taught over the website, and the lecture outline can be used for note-taking. It also contains materials essential for the exercises, and includes copies of all assignments.
3. Purchase the book and use it to review and enhance the lectures. My lectures will follow the organization of the book, expanding on certain topics, and cutting out a few others.
4. Understand, do not memorize. Tests will include multiple choice and essay questions. I will be much more concerned about concepts than your ability to memorize terms.

Notice: Students must be officially registered for this course. No assignments or tests of any kind will be graded for students whose names do not appear on the class list.

Notice to students with disabilities: If you have a disability that will likely require some accommodation by the instructor, you must contact the instructor and document the disability through the Disability Resource Center, preferably during the first week of the course. Any requests for special considerations relating to attendance, pedagogy, taking of examinations, etc. must be discussed with and approved by the instructor. In cooperation with the Disability Resource Center, course materials can be provided in alternative formats--large print, audio, diskette or Braille.

DATE	SUBJECT	READING	GRADED ITEMS/IMPORTANT NOTES
25-Aug	orientation to class and to science	p.2-3	
27-Aug	intro to Earth Systems Science	p.3-18	
29-Aug	Daisyworld		
1-Sep			<i>LABOR DAY--NO CLASS</i>
3-Sep	solar system, sun	p.30-41,43-51,53-55	
5-Sep	solid earth	p.66-75	
8-Sep	exercise 1 intro, plate tectonics	p.75-87	
10-Sep	earthquakes, exercise 1 data	p.92-98	
12-Sep	earthquake hazards, ex. 1 discussion	p.99-107	EXERCISE 1 DUE
15-Sep	minerals, crystals, rock types	p.112-118,124-125	<i>LAST DAY TO ADD/DROP CLASS</i>
17-Sep	weathering and soils	p.125-132	
19-Sep	rock cycle	p.87-88,130-132,353	<i>GUEST LECTURER-Jim Evans</i>
22-Sep	igneous rocks	p.136-138,147-153	<i>GUEST LECTURER-Jim Evans</i>
24-Sep	volcanoes	p.138-145	
26-Sep			EXAM 1
29-Sep	sedimentation, stratigraphy	p.158-160	
1-Oct	fossils	p.160-161	
3-Oct	geologic time	p.160-161	
6-Oct	radiometric dating	p.162-168	
8-Oct	hydrosphere	p.190-191	
10-Oct	streams	p.191-199	
13-Oct	floods	p.199-202	
15-Oct	groundwater, lakes	p.202-211	
17-Oct	snow	p.216-222	
20-Oct	glaciers, sea ice, ex. 2 intro	p.227-235	
22-Oct	oceans	p.227-232	
24-Oct	ocean circulation	p.242-250	EXERCISE 2 DUE
27-Oct	el nino		
29-Oct			EXAM 2
31-Oct	coriolis effect	p.250-256	
3-Nov	waves,tides,sea-level change	p.256-268	
5-Nov	atmosphere, greenhouse effect	p.272-282,478-481	
7-Nov	clouds,wind	p.282-286	
10-Nov	atmospheric circulation	p.294-305	
12-Nov	severe weather	p.308-311	
14-Nov	climate change	p.316-319	
17-Nov	paleoclimate	p.319-339	
19-Nov	carbon cycle	p.372-375,476-478	
21-Nov	climate change policy, ozone hole, ex. 3 intro	p.481-488	
24-Nov			EXAM 3
26-Nov			<i>THANKSGIVING--NO CLASS</i>
28-Nov			<i>THANKSGIVING--NO CLASS</i>
1-Dec	life, ecology	p.344-352	EXERCISE 3 DUE
3-Dec	biologic production, Gaia hypothesis	p.352-359	
5-Dec	extinctions	p.411-415	
12-Dec			FRIDAY, 9:50 AM FINAL EXAM