

Earth and the Environment

EAES 107

Spring 2013

	<u>DAY</u>	<u>TIME</u>	<u>ROOM</u>	<u>INSTRUCTOR</u>
Lecture:	Mon. & Wed.	10 – 11:15 AM	UN 3012	Josh Galster
Lab:	Mon.	2:30 – 4:20 PM	Mallory 353	Sara Dager-Smith

Professor: Dr. Josh Galster Office: Mallory 251, X4123
Email: galsterj@mail.montclair.edu
Office hours: Wednesdays 11:15 – 12:15
 Thursdays 10:30 – 11:30, *or by appointment*

Lab instructor Sara Dager-Smith dagersmiths1@mail.montclair.edu

Course Objective: To present the fundamental processes in earth science including plate tectonics, hazards, waste disposal, energy sources, and the origin of mineral and energy resources, and the science of climate change.

Class Summary: Earth and the Environment is an introduction to the basic processes of the Earth and how human activity has affected the planet. I will introduce the basic systems that make up the planet (biosphere, lithosphere, atmosphere, and hydrosphere) and how humans interact with those systems.

Course Goals: By the end of the course, you will hopefully understand basic concepts such as:

- The major processes operating on Earth hazards
- How humans have affected natural systems
- Geologic hazards
- Where Earth materials and energy comes from and how they are used
- How natural systems have affected humans
- Past and future climate change

Required Text and reading: Readings will be posted online (www.blackboard.montclair.edu). The custom lab book is in the bookstore. The required electronic chapters are at: <http://tinyurl.com/2bb6yrc> and are Chapters 1 and 3. Chapter 1 is FREE; chapter 3 is not but is inexpensive.

Materials: Notebooks and pencils/pens required for lab and lecture. For lab you need to bring the custom lab manual on your lab day. Other materials will be provided and posted to Blackboard.

Class attendance and in-class activities: I don't take attendance in class, but there will be many in-class activities, all of which are graded. Readings are meant to supplement, not replace, the lectures, so you will miss valuable material if you miss class. Exercises done in lab almost always involve material physically in the lab room; if you're not there, you can't do it. If you need to rarely miss lab for a pre-excused absence, arrangements can be made. However, rescheduling will not become a routine and will only be done on a case-by-case basis. If you need to miss lab or class arrangements must be made BEFORE that day, unless there are emergency circumstances.

Online discussions and assignments: There will be a series of discussions and online assignments. You need to participate in these discussions, as they supplement what we will cover in class. Your lowest two discussion grades will be dropped.

Exams: There will be 2 in-class exams and a final exam. The final exam will focus on the material covered in the last part of the course but will include other material presented throughout the semester. Unless there are

emergency circumstances, make-ups will not be provided for tests or other assignments without prior arrangements.

Hometown geology assignment: You will write a 3-page report discussing an aspect of environmental geology of your hometown. The report needs to cover an example of humans interacting with the natural world, and some possible topics include wastewater treatment, landfills, drinking water, water pollution, coastal erosion, flooding, waste hazards, or some other topic that relates to what we will cover this semester. This assignment will be due Wednesday April 24th at 10:00 AM, and is worth 10% of your grade. More details will be given as we get closer.

Labs: You have 12 lab assignments once a week taught by a graduate student. The lab assignments may be related to class, or may be more independent. Attendance at labs is critical, and make-ups for lab assignments are only possible due to emergencies or prior notification.

Online quizzes: There will be weekly quizzes posted on Blackboard. They will be available starting Tuesdays and are due by Friday, 1PM, of that week. The quizzes are meant to help you review and keep you up to date on the reading. The quizzes may cover material up to the Monday class of that week. These quizzes are independent efforts, although they are open-book and open-note.

Grading: Here is the breakdown for how your final grade will be calculated:

Labs:	25%
Exams:	30%
Hometown geology report	10%
In-class & online assignments:	5%
Online quizzes:	10%
<u>Final EXAM:</u>	<u>20%</u>
TOTAL:	100%

Final grades are determined on this system:

A:	93% ≤	B+:	87 to < 90%	C+:	77 to < 80%	D+:	67 to < 70%	F:	< 60%
A-:	90 to < 93%	B:	83 to < 87%	C:	73 to < 77%	D:	63 to < 67%		
		B-:	80 to < 83%	C-:	70 to < 73%	D-:	60 to < 63%		

Academic honesty: IF YOU CHEAT, EXPECT TO RECEIVE A 0 (ZERO) FOR THAT GRADE. It doesn't matter if you cheated on one part/one question or the entire thing, you will receive a zero. Cheating includes plagiarism, copying from someone's work in-class, or other examples of academic dishonesty.

I expect your final grade in this course to reflect the effort and thought **you** put into it. I further expect each of you to hold yourself to the highest standard when it comes to academic integrity. On group assignments I encourage sharing and collaborating, but there are certain exercises when you and you alone are responsible for the work. If you have any questions about this policy, please just ask me or the TA.

This is directly from the university's code of conduct: "*Academic dishonesty is any attempt by a student to submit as his/her own work that which has not be completed by him/her or to give improper aid to another student in the completion of an assignment, i.e., plagiarism. No student may intentionally or knowingly give or receive aid on any test or examination, or on any academic exercise, that requires independent work.*"

For a complete list see: <http://www.montclair.edu/deanstudents/regulations1.html#violations>

Earth and the Environment (EAES 107) **schedule**: subject to change, so pay attention!

DATE	Lecture #	TOPIC	ONLINE QUIZ (Due Fri. by 1PM)
23-Jan	1	Welcome to the course, Humans and the Environment	
28-Jan	2	Plate tectonics	
30-Jan	3	Plate tectonics	#1
4-Feb	4	Rocks and Minerals	
6-Feb	5	Geologic time and dating methods	#2
11-Feb	6	Volcanoes and hazards	
13-Feb	7	Volcanic hazards continued	#3
18-Feb	8	Earthquakes	
20-Feb	9	Earthquakes hazards	#4
25-Feb		EXAM 1	
27-Feb	10	Freshwater resources	
4-Mar	11	Freshwater resources	#5
6-Mar	12	Flooding	
11-Mar		SPRING BREAK	
13-Mar		SPRING BREAK	
18-Mar	13	Flooding	
20-Mar		NO CLASS	#6
25-Mar	14	Soils, weathering, and erosion	
27-Mar	15	Coastal Environments	
1-Apr	16	Coastal Environments	
3-Apr	17	Coastal Environments	#7
8-Apr		EXAM 2	
10-Apr	18	Mineral resources	
15-Apr	19	Mass wasting	#8
17-Apr	20	Waste management	
22-Apr	22	Fossil fuels	#9
24-Apr	23	The future of energy***	
29-Apr	24	Glaciation and past climate change	#10
1-May	25	Present and future climate change	
6-May	26	Course summary, prepare for final	#11
13-May		FINAL EXAM: 10:15 AM	

***Hometown geology assignment DUE Wednesday April 24th at 10:00 AM.