

The Natural Environment

GEOG 141
Winter2017

Instructor: Aaron Zettler-Mann (azettler@uoregon.edu)

Office: 105 Condon Hall

Office Hours:

Lecture:

Labs:

Graduate Employees:

Course Materials

1. [Physical Geography, 5th Edition](#) by Mason, Burt, Muller, and de Blij. Available in the UO Bookstore new or used. Previous editions from other sources will work, but the student is responsible for any content that is different. Also available to rent or own as an eBook through [RedShelf](#). There are also two book on reserve at the SCIENCE Library. You can check one out for 90 minutes at a time.
2. iClicker2 remote. Do NOT purchase i>clicker REEF polling for your phone...you will need the physical device. You will likely need one for other classes at some point at UO.
3. A subscription to PackBack, an online classroom discussion platform. [[[?]]]
4. [Google Earth](#) desktop application, version 6 or higher. You will not be able to use Google Earth accessed through a web browser. It will be difficult to use Google Earth on iPads or phones...please plan on using Google Earth on laptop or desktop computer. See detailed syllabus. This software is free, and very cool.
5. Other course materials will be made available on canvas.uoregon.edu

Course Objectives

We live in a complex world, and it is extremely helpful if you can better understand how things work and why. This course focuses on the interactions between the Atmosphere, Lithosphere and Hydrosphere.

We will focus on developing your ability to:

- Understand the natural processes that occur across the earth over time scales from hours to millions of years, and spatial scales from your back yard to the entire planet.
- Use maps and digital tools to explore the patterns of many processes happening across the Earth...
...Including the gaseous blanket covering our earth; the location of weather and the reason our planet is habitable (the atmosphere)

...The ground we walk on; why mountains, rivers, deserts and valleys appear where they do; (lithosphere)

...And how water moves around our earth, and why the *phase* water is in matters (hydrosphere).

- At the end of this class we hope that you will have a basic understanding of the three “spheres” of physical processes on earth, how they interact and how human activity can change them.

Tentative Schedule

W	Date	Topic, Reading, and Homework	Unit	Lab Topic
1		Introduction: Geography and Planet Earth	1,2	Map skills (units, scales, projections, locations, isolines)
		Mapping Earth's surface, Earth-Sun relationships	3,4	
2		Radiation and the heat balance; the Greenhouse Effect; Composition of the Atmosphere	5,6	Earth-Sun relationships
		Temperatures of the Lower Atmosphere	7	
3		Atmospheric Pressure: Winds; small scale wind systems Fieldwork #1 assigned	8,9	Temperature
		Global air pressure gradients, Coriolis forces and geostrophic winds; Ocean currents	9,10 (part)	
4		Atmospheric moisture and the water balance	11	Global circulation, humidity, adiabatic processes and weather
		Weather: Air masses, lapse rates, clouds, precipitation processes, atmospheric stability Fieldwork #1 due on October 20th by 5PM	12	
5			14,15	
		Climate Classification & Climates of the World	16,17	
6		Midterm – All Lectures and readings		
		Natural climate change and human impacts on climate Fieldwork #2 assigned	18,19	Global biomes & climate change
7		Biogeochemical cycles (carbon and nitrogen); Biogeographic processes	20,24	Topographic maps, air photos, and mapping vegetation.
		Phytogeography (distribution of plants) and Zoogeography (distribution of animals)	25,26	
8		Weathering: physical and chemical; Mass wasting: landslides and debris flows Fieldwork #2 due on November 14th by 5PM	35,36, 37	Landforms and mass wasting
		Snow – reading will be posted on Canvas		

9	Groundwater Fieldwork #3Assigned	38	NO LAB
	NO CLASS		
10	Landscapes shaped by streams Fieldwork #2 due on November 27th by 1PM	40,41	Stream processes
	Glacial erosion; continental and alpine glaciation	Parts of 43, 44,45	
F			

Grading

We do not give grades, we simply evaluate and assign the grade that you earn.

It is up to you to earn the grade that you want. If you want a higher grade put in the effort throughout the term. The best way to do this is simply come to class prepared (read beforehand and go through iClicker questions), listen and take good notes, and put in the effort on the labs.

Your final grade will be calculated by weighting your performance in the different components of the class as follows:

In-class i-clicker questions	15%	Lower grade boundaries are:
Lab exercises	24%	
PackBack interactive discussion	10%	
Fieldwork exercises	8%	
Midterm exam	20%	
Final exam	23%	

I grade on a curve with the aim of a majority of B and C grades, comparatively fewer A and D grades, and, hopefully, very few F or NP grades. I set the B/C boundary at the class average, or mean. Unless you can demonstrate that an error was made in grading your work, final grades are just that— final. *There will always be students who miss a letter grade cut-off by just a tiny amount and I am unwilling to nudge students over such a cut-off unless a demonstrable grading error provides the missing 'tiny amount'. I am also unwilling to nudge the boundary, as this will simply result in a new set of students in the same predicament.*

i-clicker questions (15% of your grade)

Each lecture's Powerpoint presentation, *including the i-clicker questions*, will be posted on Canvas *before* the lecture, on or before the Friday of the week before. This is to encourage you to review the material that will be presented at our next meeting. Look through the slides, find the three upcoming i-clicker questions, and do your best to arrive at tentative answers before coming to class. Then, listen carefully as I present the relevant material in the next day's lecture. Nobody should miss any of the i-clicker questions if you put in this effort in advance. Your lowest iClicker score will be dropped.

To receive credit for your answers to in-class questions you must register your clicker on the class Canvas site. To do so, first open Canvas and log-in. Choose 'Courses' from the top bar and click on Geography 141 from the list of classes available to you this term. Choose 'i>clicker' from the choices available along the left hand side of the screen and follow the step-by-step instructions. Should you have difficulties please consult with the

Student Help Desk for Canvas in the Knight Library. **You must register your i-clicker by the end of Week 1 as graded questions will begin on Monday of Week 2.**

Lab exercises (24% of your grade)

- At least one week before the lab session: Introductory material for each assignment is posted in a "module" in Canvas. On Fridays at 4:00PM the lab assignment is released within the Canvas module. Each week's lab/discussion section has two graded parts. The first is a "**lab**" which you will begin during your lab section and complete on your time.
- NOTE: It is usually helpful to bring a laptop to the lab session. If you do not have one, it should be fine, as you can view a neighbor's computer if needed.
- Individual labs are due each week on Monday by 8:00 pm. Thus, the lab questions are available to everyone for the same amount of time. If you have a discussion on Tuesday, you have a short amount of time to preview the lab material but a longer period to complete the work for submission. If your discussion section meets on Fridays, you have a long period to preview the material, attend lectures that help with the material, before attending the lab session, but then a shorter time to complete the assignment.
- If you don't attend your lab/discussion section, you will receive a zero for that week's lab.
- The difficulty of the lab assignments generally increases through the term, but your chances for a good overall grade on the lab assignments is much better if you complete all the assignments.
- The lowest lab score for the entire term will be dropped when final grades are computed.
- **Late submissions:** You have three additional days to submit a late lab. Each day after the due date results in a reduction of 20% of the grade. Exceptions exist for labs 4 and 9, as answers must be made available before exams.
- Answers to questions on the labs are released Thursdays at 4:00, three days after the lab is due. Lab 4 and Lab 9 answers will be released sooner, before the exams. However, it may be several days before the assignment is completely graded by your GTF.
- If your average grade for the labs (after dropping the lowest lab grade) is not a passing grade (>60%), you will not pass the course. **Simply put show up to the discussions and do the labs.**

PackBack interactive discussion (10% of your grade)

The reality is that students spend time on their phones and computers (though hopefully not in class).

This interactive component of the course allows students to link the digital world with real world with concepts we are or have discussed in class. PackBack is a moderated discussion board that is student-driven. The goal is for you to develop a better understanding of the topics and to spark your curiosity of events in your world.

In order to receive your points per week, you must post **1 Question and 2 Answers** *relevant to our class subject matter* per week. We will circle back these online discussions to the classroom too. It is your chance to shine as a student.

Before you start posting, be sure to read the [Community Guidelines](#) found in the tutorial on Packback. If your post doesn't follow the Packback Community Guidelines, there is a chance it will be removed and you won't receive points for that post.

There will be a **Sunday 11:59 PM deadline** for submissions in your community each week.

Fieldwork exercises (8% of your grade)

It is challenging to get large classes outside, but the ability to look around and understand what is going on is an important component of this course and to your capacity to interpret the world. The three fieldwork exercises will not be very time consuming, but will require you to get out look around.

They will be posted in Canvas two weeks before they are due.

Midterm exam (20% of your grade)

Midterms will be in class and consist of 50-60 multiple choice questions. I do not allow make-up midterms without a written evidence (ex. A not from a doctor or advisor). You also must let me know ahead of time by email if you are unable to make the exam. Make-up exams will be short answer and essay format.

Final exam (23% of your grade)

The Final exam will focus primarily on content in the second portion of the course, but will also include important components of the first portion of the class. The final exam will be approximately 65-75 multiple choice questions.

The Final will be on December 7th at 2:25PM.

During exams you will not be allowed to have electronic devices of any kind. Turn off your cell phones when you come in to the room. Be sure to use the restroom before coming to the exam and to bring a photo ID card (e.g., UO ID, driver's license)—you will be asked to show it upon exiting the room.

Your grades will be posted in the Grades section in Canvas after every exam or homework/lab assignment has been completed. Please check regularly to make sure everything is correct. You will have just one week from when graded assignments or exams are returned to you to dispute a grade.

Hints for the Class...

Stay engaged. The class will go by quickly so try to keep on top of it. Read the assigned material prior to the lectures and Discussion Section meetings. Copies of the textbook are on reserve in the Science Library, available for 90-minute check out periods.

To succeed in the class you must take your own notes. My lectures will consist of Powerpoint presentations which will be posted on Canvas prior to their actual delivery in the classroom—look them over in advance, to find the coming i-clicker questions if nothing else! In preparing for the midterm and final exams, I recommend that you go through each Powerpoint presentation, slide-by-slide, and make written notes about what each slide was meant to convey.

Focus on the slides with text, diagrams or graphs. The remaining slides will be pictures of real examples of geographic features to illustrate the points made in the slides with text, diagrams or graphs. It would also be a good idea to write out a definition for every new term introduced and I can't recommend strongly enough that you go back and re-answer all of the i-clicker questions. I will post these, with the correct answers underlined, several days prior to the midterm and final exams. You will see some of these i-clicker questions again on exams.

I am completely intolerant of academic dishonesty and will prosecute fully anyone caught engaged in such activities. I encourage you to work together and discuss the homework/lab assignments. However, never turn in word-for-word verbatim answers on your assignments that have been copied from your neighbor. Also, never copy text directly from the Discussion manual and submit it as your own work—this is plagiarism. You must either present such statements within quotation marks with an appropriate reference, or restate the concept in your own words.

Communication and questions regarding class

Questions or concerns? Office hours are a great way to address them. If you cannot make the designated office hours let me know and we can figure out a time that will work.

Also please put GEOG141 in the subject line of any email to myself or the GTFs. That helps us work through emails efficiently.

Have a great term, and I am looking forward to working with all of you.

DRAFT