

GEOG 141: The Natural Environment Fall 2018

Instructor: Mark Fonstad

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Phone: 346-4208

Office Hours: Thursdays 12:30-1:30 or by appointment

Lecture: Tuesday & Thursday, 2:00-3:20, 182 LILLIS

TAs and Weekly Lab Sections:

Chantal Saban: W 9:00-9:50 (206 Condon), W 10-10:50 (206 Condon), F 2:00-2:50 (206 Condon)

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Office Hours: Wednesdays 1-2

Jamila Baig: W 11-11:50 (206 Condon), W 12-12:50 (206 Condon), F 12-12:50 (206 Condon)

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Office Hours: Fridays 11-12

Eli Orland: F 11-11:50 (106 Condon), F 12-12:50 (106 Condon), F 1-1:50 (206 Condon)

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Office Hours: Friday 9-10

Objectives of the course

Using readings, lectures, and laboratories to develop an understanding and appreciation of natural processes that occur every day or over every year. The basics of meteorology (study of the atmosphere and weather), climatology (longer-term trends in weather and its variation over the earth), biogeography (distribution of life on earth) and geomorphology (processes that shape the surface of the earth).

Students will understand the important properties of maps and students will use maps and digital mapping tools to explore spatial patterns on earth.

Topics in meteorology will range from why weather changes daily to the causes of global patterns of climate. Students will be able to interpret patterns, and explain causes, of maps of various weather elements (temperature, air pressure, humidity, wind).

In climatology, students will study the causes of seasonal patterns of temperature and rainfall in different locations on earth. Students will be able to link the causes of these seasonal patterns to patterns in atmospheric circulation, and the role of various other factors such as elevation and location within continents. Last, students will be able to roughly locate climatic data (presented as a graph) to actual locations on earth.

In biogeography, students will be able to explain why climates produce major biome types on earth, including the causes of the changes in vegetation in Oregon.

In geomorphology and hydrology, students will understand the pathways of water from precipitation to ocean and atmosphere, and how rivers sculpt the surface of the earth. Students will be able to identify mass-wasting and glacial features from topographic maps, and be able to create and explain the patterns in longitudinal profiles of rivers.

Required materials

1. **Physical Geography, 5th Edition** by de Blij, Muller, Burt, and Mason. The textbook is available in the bookstore. It is a common book and available from many sellers (be sure you get the **5th edition**). You will need the book from the beginning of class. Note that we will not cover the entire book. If a topic interests you, please feel free to read on! Climatology, biogeography, and geomorphology are all 300-level Geography courses where you can pursue these topics in more detail.
2. **Laboratory Instructions**. These will be made available to you via Canvas. We expect you to review them before the lab section.
3. **Google Earth** desktop application, version 6 or higher (free software).
4. Additional and supplementary materials will be made available on canvas.uoregon.edu.

Grading

Two fieldwork exercises (10% of total), Two exams (50% of total), and Weekly laboratories (40% of total). You must receive a passing grade in lab in order to pass the class. The final grade scale is as follows: A+: >98; A: 92-98; A-: 90-92; B+: 88-90; B: 82-88; B-: 80-82; C+: 78-80; C: 72-78; C-: 70-72%; D+: 68-70; D: 62-68; D-: 60-62; F: <60. Grades will be posted on Canvas along with any announcements. I reserve the right to offer extra credit, but you should not expect it or ask for it. If you have questions about your overall grade(s), please make an appointment with me or with your GTF to discuss your concerns.

Fieldwork exercises (10% of total 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.

Exams (50% of total grade)

There will be two tests, Exam 1 (25%) and Exam 2 (25%). Students who miss a test without a documented excuse will receive a score of ZERO for that test. Makeups for missed exams will require a documented excuse (medical, emergency, etc.). Except in the case of true emergencies, you must contact me prior to the exam if you are going to miss it; otherwise you will receive a grade of zero. University policy requires students take the final exam on the scheduled final exam date/time; wishing to take the exam early so that you can go home for the holidays early is not a valid excuse to take a make-up exam.

Lab (40% of total grade)

The weekly one hour labs are major part of this course. 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**. The labs provide you with the opportunity to apply some of the concepts you have learned in class and in readings, to ask questions about points that interest or confuse you, and to get to know your classmates better. If you do not attend lab, you will not receive credit for that week's lab assignment unless you have a documented excuse. If you cannot for a valid reason attend a lab, you must communicate this in advance of the lab with your GTF. Late labs are not graded. **Labs begin during week 1**. Many of the lab activities, as well as all of the answering of lab questions will take place online, so it is very much to each student's benefit to bring a laptop to the lab period. Your lab instructor will discuss the lab practices in more depth.

You will most likely not finish the lab during the lab period, so you will have to put in some time outside the 50-minute period to complete the lab. It is to your advantage to read

through the lab before the lab session. This will allow you to ask questions about any parts that cannot be finished during the lab period.

You will enter your lab answers and submit them by computer via Canvas. Labs are due by 11:59pm six days after the lab (e.g. Wednesday labs are due on the following Tuesday at 11:59pm); otherwise you will receive a grade of zero for the lab. Your lowest lab grade of the quarter will be not be included in the final tally. Cheating on labs will not be tolerated and will be reported to the Student Judicial Affairs Office.

Participation

While attendance at lecture is not mandatory, you are **strongly** encouraged to attend every lecture in order to gain the knowledge crucial for understanding the course material and for doing well on course exams. I will have a sign-in sheet in class in order to take roll so that I know who is attending on which days, though this does not figure into the grading process.

Attending Lecture and Completing the Readings

To do well in this course, you will need to come to lecture and keep up with the readings. The information being taught is cumulative: you will not understand material if you skip sections. There will be examples provided during lecture that are not in the text but will nevertheless be covered on the exams.

During lecture please be respectful of everyone's learning experience. This includes:

- No talking amongst each other. Please leave your social conversations for outside the classroom. However, questions during lectures are encouraged. If you have a question, raise your hand or catch me after class.
- Please don't leave in the middle of lecture. It is distracting for many people, including me. If you need to leave sit near an exit.
- Do not have your laptop open to surf the web. I reserve the right to ban laptop use at any particular point during the term. Note taking on laptops is allowed, however taking notes by hand has been shown in several studies to improve performance in comparison to note-taking on laptops.

Assigned readings should be completed prior to the corresponding lecture. You are required to read the current week's lab prior to attending lab.

Contacting me

The fastest way to contact me is via email. When asking me questions about the policies of the class, remember that the reading assignments, exam dates, as well as policies on late/make-up work are clearly stated in this syllabus.

Academic Dishonesty

I *will not* tolerate cheating or academic misconduct/dishonesty in my courses; examples of these behaviors include (but are not limited to):

- Plagiarism (passing off the work of another as that of your own)
- Copying answers from your neighbors during exams/activities
- Dishonesty concerning reasons for absence from class
- Any other actions that might give you an unfair advantage over your classmates.

All cases of academic dishonesty/misconduct will be referred immediately to the Student Judicial Affairs Office. The penalties for engaging in academic dishonesty and/or misconduct can range from a grade of "F" for an assignment to an automatic failure of the course.

Please consult the university policy at <https://dos.uoregon.edu/social-misconduct>

Late/Make-Up Work

Late labs will not be accepted and make-up work will not be assigned, except in extreme circumstances and where you have documentation (i.e. doctor's note). If you must miss a lab section or exam due to illness or other unavoidable circumstances, you **MUST** notify the instructor prior to missing if possible.

Disability Services Notice

I work hard to ensure a quality learning experience for all students. If you need specific accommodations to get the most out of this class, please let me know by (1) informing me of your particular needs, and (2) providing the appropriate documentation from the campus learning services office. I will make every effort to accommodate your needs, but you must notify me by the first week of class if you need special arrangements.

Note: I consider this syllabus a contract between myself and the students in this course. In writing this syllabus, I have obligated myself to follow the policies and procedures contained herein. You are responsible for understanding and following these policies as well. I reserve the right to make changes to this syllabus. You will receive verbal and written notification of major changes to course policies, procedures and content.

Geography 141 Daily Schedule, Fall 2018						
Date	Day	Times	Lecture Activity	Readings	Lab Topic	
25-Sep	Tuesday	2-3:20pm	Introduction: Geography and Planet Earth	1, 2	Map skills (units, scales, projections, locations, isolines)	
27-Sep	Thursday	2-3:20pm	Mapping Earth's surface, Earth-Sun relationships	3, 4		
2-Oct	Tuesday	2-3:20pm	Radiation and the heat balance; the Greenhouse Effect; Composition of the Atmosphere	5, 6	Earth-Sun relationships	
4-Oct	Thursday	2-3:20pm	Temperatures of the Lower Atmosphere	7		
9-Oct	Tuesday	2-3:20pm	Atmospheric Pressure: Winds; small scale wind systems; Fieldwork 1 Assigned	8, 9	Temperature	
11-Oct	Thursday	2-3:20pm	Global air pressure gradients, Coriolis forces and geostrophic winds; Ocean currents	9, 10 (part)		
16-Oct	Tuesday	2-3:20pm	Atmospheric moisture and the water balance	11	Global circulation, humidity, adiabatic processes and weather	
18-Oct	Thursday	2-3:20pm	Weather: Air masses, lapse rates, clouds, precipitation, atmospheric stability; Fieldwork 1 Due	12, 14, 15		
23-Oct	Tuesday	2-3:20pm	Climate Classification & Climates of the World	16, 17	Global Climates	
25-Oct	Thursday	2-3:20pm	Midterm Exam			
30-Oct	Tuesday	2-3:20pm	Natural climate change and human impacts on climate; Fieldwork 2 Assigned	18, 19	Climate change	
1-Nov	Thursday	2-3:20pm	Biogeochemical cycles (carbon and nitrogen)	20		
6-Nov	Tuesday	2-3:20pm	Biogeographic processes	24	Topographic maps, air photos, and mapping vegetation	
8-Nov	Thursday	2-3:20pm	Phytogeography (distribution of plants) and mapping vegetation; Fieldwork 2 Due	25		
13-Nov	Tuesday	2-3:20pm	Zoogeography (distribution of animals)	26	Landforms and mass wasting	
15-Nov	Thursday	2-3:20pm	Weathering: physical and chemical; Mass wasting: landslides and debris flows	35, 36, 37		
20-Nov	Tuesday	2-3:20pm	Snow and Groundwater	38	No lab	
22-Nov	Thursday	2-3:20pm	Thanksgiving Break			
27-Nov	Tuesday	2-3:20pm	Landscapes shaped by streams	40, 41	Stream processes	
29-Nov	Thursday	2-3:20pm	Glacial erosion; continental and alpine glaciation	Parts of 43, 44, 45		
5-Dec	Wednesday	12:30-2:30pm	Final Exam			
Other Important Dates						
24-Sep	Monday		Classes begin			
29-Sep	Saturday		Last day to drop classes w/o 'W'			
30-Sep	Sunday		Last day to reg/add classes			
11-Nov	Sunday		Last day to withdraw from classes			
30-Nov	Friday		Last day of classes			
11-Dec	Tuesday		Grades due (Tuesday noon)			