

GEOG 125: Physical Geography (5 credits)

FALL 2018

Lecture: Tues & Thurs 1:00-2:15 (Rm 386)

Lab: Tues & Thurs 2:25-4:15 (Rm 280)

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GEOGRAPHY 125

Why is the Sahara Desert dry? Why are the Amazon Basin and African Congo wet? Why are tropical rainforests rich in biological species? What are the causes and consequences of global warming? How does climate and location affect human activities? Physical geography addresses such questions by describing the spatial distribution of climate, water, soil, relief, and biota at the Earth's surface, the functional interactions between them, and their relationships with people. Physical geography is the study of the processes, forms, and spatial components of natural systems operating at and near the surface of the earth. These natural systems are manifestations of the transfers of matter and energy among the atmosphere, hydrosphere, lithosphere, and biosphere (air, water, land, and life). This course investigates patterns in weather, climate, soils, and vegetation as well as the processes that create them. The class will use a systems approach to provide an integrated understanding of Earth's natural and biological processes. We will study the processes and interactions that create Earth's physical geographic patterns.

OVERARCHING STUDENT LEARNING OBJECTIVES

At the completion of this course, students will:

- 1) Have a synthetic understanding of the physical processes that control the Earth's weather and climate systems.
- 2) Understand the linkages between climate, soil, vegetation, and biota.
- 3) Use maps and graphs to analyze and interpret data and draw valid conclusions.
- 4) Explain the cause of seasons.
- 5) Discuss the function, temperature profile and composition of the atmosphere.
- 6) Understand how the interrelationships between the Earth's energy balance and belts of pressure and wind influence weather, climate and the location of biomes.

GEOLOGY/GEOGRAPHY DEPARTMENT COURSE PROFICIENCIES

In addition to the content covered, this course will enable you to develop or enhance skills or proficiencies such as being able to:

- Analyze, synthesize, evaluate, and interpret information and ideas.
- Interpret graphs, tables, and diagrams.
- Select and apply scientific and other appropriate methodologies.
- Recognize and use a variety of written communication forms and styles.
- Read and listen with comprehension and critical perception.
- Demonstrate a large and varied vocabulary.

The above proficiencies are an important outcome of a college education. Much of *how* this course is taught (not just what is taught) is directed towards helping you progress on this track as you move towards completion of your degree here at UW-Marathon County.

Required Text: <u>http://www.physicalgeography.net/fundamentals/contents.html</u> (Free, online textbook)

D2L: Most of the course materials (syllabus, lecture notes, handouts, readings, videos, assignments, grades, etc.) are posted on D2L. Pre-class quizzes are taken on D2L. Several assignments will be submitted via D2L. It is imperative that you feel comfortable using this website. If you have questions, please do not hesitate to come and talk to me about navigating D2L.

Required Materials: Please bring these items with you to class each day unless otherwise noted: textbook, folder to hold class handouts, notebook, and pencil with eraser.

GRADING

The following curve will apply to all course grades (i.e. exams, assignments, final grades):

А	94-100%	В	84-88%	С	74-78%	D	64-68%
A-	90-93%	B-	80-83%	C-	70-73%	D-	60-63%
B+	87-89%	C+	77-79%	D+	67-69%	F	<59%

Your final grade will be assigned as follows:

Pre-class quizzes (5% of your overall grade): Lecturing about terminology is no fun for me or you! To introduce you to topics we will be working on in class that day, there will be a short D2L quiz based upon designated reading and/or video prior to almost every class. These quizzes will allow us to spend class time working through more complex concepts. All pre-class quizzes are due by 12:45pm on class days. There will be no make-ups for missed quizzes, however, the lowest 3 will be dropped at the end of the semester.

Homework (15% of your overall grade): There will be a handful of homework assignments given throughout the semester. They will count toward your participation grade, but these assignments will NOT be allowed to be any of the 2 lowest participation grades dropped.

In-class quizzes (10% of your overall grade): Quizzes will be administered throughout the semester to check for content understanding and to ensure you are engaging in distributive studying. These will be cooperative quizzes:

Part 1: You will independently take the quiz

Part 2 (optional): You can re-take the quiz, but will work in your group

Your final quiz score is based upon 75% from Part 1 and 25% from Part 2. If you choose not to complete the group quiz or if your grade on Part 1 is higher than Part 2, only your grade from Part 1 will count. Bottom line: taking the cooperative quiz will not negatively affect your quiz grade. If you are late or absent, you will not be able to make up the quiz without a legitimate excuse presented **prior** to the quiz. Some quizzes will be announced, others will not. The lowest quiz grade will be dropped at the end of the semester.

Mid-Term Exams (24% of your overall grade): There are 3 mid-term exams, each contributing toward 8% of your overall grade. They will cover course material directly preceding them. Exams will be mostly multiple-choice, matching, and short answer format.

Final Exam (16% of your overall grade): The final exam will be comprehensive. The final exam will be divided into three sections, with each section containing material covered in exams 1, 2, & 3. Should you improve your percentage on one of the sections, then that percentage will replace a previous exam score in the gradebook. This method will only affect one previous exam. For example, if you scored a higher percentage on section 2 of the final exam, then that percentage would replace your exam 2 score.

Final Project (10% of your overall grade): This assignment is a way for you to explore the physical geography of a place that is of interest to you through independent research. 8% of your course grade is based on this assignment (same as an exam), so give it some thoughtful consideration and effort. Further details will be provided on a separate handout.

Lab (20% of your overall grade): Labs will be completed during the semester. Answers to exercise questions may be solved individually or as a group (2-4 people). Beyond correct answers, coming to class on-time, and answering questions in complete, concise sentences with thorough explanations (when necessary) will affect your grade. Labs will not be turned in for a grade—instead; you will be assessed in class with either verbal check or written quiz. If you know you will miss a lab period for a documented reason, please notify me ahead of time via email.

CLASSROOM CONDUCT In order to maintain a good learning environment, rude and/or disruptive behavior will **NOT** be tolerated. You will be asked to leave the class if your behavior is deemed inappropriate. The following examples are considered rude and disruptive:

- Consistently arriving late to class
- Private conversations during lectures and discussions
- Habitually leaving and returning to class in one class period
- Allowing your cell phone to ring on numerous occasions or texting

As the instructor of this course, I reserve the right to determine what constitutes as disruptive behavior and you as a student do not have that right. If the disruptive behavior continues or is serious enough, a student may be subject to discipline and may receive a sanction that may range from subtraction of points towards the course grade to permanent removal from class. **Academic and non-academic misconduct** can affect your grade, your permanent student record, even your ability to continue as a student. There are serious consequences, clearly explained in a publication called <u>Student Rights and</u> <u>Responsibilities</u> available from Student Services. **Plagiarism** and other forms of cheating are considered academic misconduct and interfering with other students' ability to learn is considered nonacademic misconduct. Lab reports and assignments are to be submitted by each student.

Accommodations

Students with approved Individualized Accommodation Plans should make an appointment with me to discuss accommodation needs. Students who are seeking accommodations services who do not already have an approved Individualized Accommodation Plan should first contact the Student Services Office.

This schedule is <i>tentative</i> , and subject to change. Any changes will be broadly communicated.									
Date	Day	Торіс	Reading Assignment	Items of Note	Lab				
9/4	Т	Introduction	<u>Chapter 1, 3-a</u>		Thinking inside the box				
9/6	R	Earth Systems	<u>Chapter 4, 5-c</u>	HW 1 Due	Geographic Grid System				
9/11	Т	Lat/Long and Maps	<u>2-a</u> , <u>2-b</u> , <u>2-d</u> , <u>2-f</u>		Using the Geographic Grid System				
9/13	R	Solar Energy & Seasons	<u>6-h</u> , <u>6-I</u> ,	Quiz 1; HW 2 Due	Implications of Grid System				
9/18	Т	Solar Energy & Seasons	<u>6-h</u> , <u>6-I</u> ,		Lab Exam 1				
9/20	R	The Atmosphere	<u>7-a through 7-e</u>	HW 3 Due	Seasons				
9/25	Т	Energy in the Atmosphere	<u>6-c, 6-g, 7-f, 7-h</u>	Quiz 2	Earth-Sun Relations				
9/27	R	Local Temperature Controls	<u>7-i through 7-m</u>	Part 1 Due	Insolation				
10/2	Т		Exam 1		No lab				
10/4	R	Pressure, Wind, Currents	<u>7-n through 7-q</u>		Net Radiation				
10/9	Т	Pressure, Wind, Currents	<u>7-n through 7-q</u>		Lab Exam 2				
10/11	R	Atmospheric Water	<u>8-a, 8-c, 8-d</u>	Quiz 3; HW 4 Due	Pressure & Wind				
10/16	Т	Adiabatic Processes & Air Masses	<u>8-e</u> , <u>8-f</u> , <u>7-r</u>		Air Masses & Fronts				
10/18	R	Mid-Latitude Cyclones	<u>8-e, 7-r, 7-s</u>	HW 5 Due	Atmospheric Moisture				
10/23	Т	Hurricanes & Thunderstorms	<u>7-t, 7-u</u>	Quiz 4	Twister				
10/25	R	Global Climate Systems	<u>7-v</u>		Climate Classification				
10/30	Т	Earth's Climate History	<u>7-x</u>	Part 2 Due	Weather Variability & Climate Change				
11/1	R	Climate Change	7-v	Ouiz 5	Lab Exam 3				
11/6	Т	9	Exam 2		No lab				
11/8	R	Rocks	<u>10-a, 10-d, 10-e, 10-f, 10-q</u>	HW 6 Due	Rocks				
11/13	Т	Plate Tectonics	<u>10-h, 10-i</u>		Plate Tectonics				
11/15	R	Earthquakes & Volcanism	<u>10-m, 10-n</u>	Quiz 6	Earthquakes				
11/20	Т	Weathering & Erosion	<u>10-r, 10-s, 10-w</u>	HW 7 Due	Volcanic Hazards				
11/22	R	No-class Thanksgiving Recess							
11/27	Т	Mass Wasting	<u>10-x</u>	Part 3 Due	Mass Wasting				
11/29	R	Streams	<u>10-</u> у, <u>10-</u> z, <u>10-аа</u> , <u>10-аb</u>	Quiz 7	Watersheds				
12/4	Т	Streams	<u>10-y</u> , <u>10-z</u> , <u>10-aa, 10-ab</u>		Stream Morphology				
12/6	R	Glaciers	<u>10-ad</u> , <u>10-ae</u> , <u>10-af</u>	Quiz 8	Streams				
12/11	Т	Coastal	<u>10-ac</u>	HW 8 Due	Lab Exam 4				
12/13	R	Exam 3 No lab							
12/14	F	Part 4 of Final Project Due							
12/18	Т	Final Exam 1:00-3:00 Rm 386							