1-2014

GPHY 111N.01: Introduction to Physical Geography

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INTRODUCTION TO PHYSICAL GEOGRAPHY

(GPHY 111N)

- Spring 2014 -

Class Meets: MWF 12:10–1:00 pm; Stone Hall 304

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Course Description

This course provides an introduction to physical geography: the study of the Earth's natural environments. The course starts with the principles and mechanisms of climate and weather, and then surveys landforms and earth surface processes. The final section of the class examines vegetation and ecosystems on global and regional scales. Throughout the course we use specific regional examples to illustrate and understand global processes. We give special attention to global environmental problems such as "greenhouse" warming and climatic change, the stratospheric ozone layer, the El Niño/La Niña oceanic-atmospheric circulation pattern, tropical storms and other extreme weather events, and the nature and distribution of volcanoes and earthquakes. The course is designed to be both challenging and interesting. It provides essential background for further study in meteorology, climatology, hydrology, ecology, biogeography, geology and physical geography.

Course Policies

Class Attendance and On-time Appearance

Attendance during the lectures is essential to your general success in class. Excessive lateness disturbs everyone else – please appear on time. You should have your breakfast before class.

Readings

The following reading is required:

Foresman, T. & A. Strahler (2012): *Visualizing Physical Geography*. – Wiley, Chichester, 624 pages.

Additional Course Material

If necessary, additional course material will be made available online through Moodle after the lectures in class. Download and use these resources for your studies in preparation for assignments and exams.

Discussion Sessions

The teaching assistant is available during the office hours for discussions dedicated to problem solving, clarification of challenging concepts, and work on the problem sets.

Assignments

Together with a partner you will work on six assignments. Assignments have to be handed in before the lecturing starts on the due date. No late work will be accepted. There is no extra credit.

Examinations

All three exams will take place in the classroom. They are subjective, not comprehensive; this means that the exam will encompass only the material that is covered in lectures and discussions between exams. In general, each examination will be a combination of multiple choice. The rules for the examinations are as follows:

1. You will take each exam as scheduled. Make-up exams are not allowed—except as listed in the Make-up exam policy below.

2. Material for the exam will be from the required textbook and other readings and all other distributed material. Attendance for each lecture is recommended in order that you take notes for each exam.

3. Make-up Exam Policy:
   - All Students must take the final exam as scheduled. Conflicts must be settled with the Dean. This is University Policy and there are no exceptions.
   - All Students must take each exam as scheduled. If an exam is missed, the student will receive a zero (0) on the exam.
   - These are the only exceptions that will warrant a make-up exam: university events—such as sporting or music events; military obligations; religious holidays; serious family emergency; medical emergencies or serious illness; court-imposed legal obligations such as subpoenas or jury duty; serious weather conditions; special curricular requirements such as judging trips or field trips.
   - Any student requiring an exception under this policy must do so **prior** to the scheduled exam—unless in the case of an actual emergency (sudden hospitalization). A student must provide official documentation of the reason for absence **in advance**.
   - If a make-up exam is approved. It must be completed within one week of the original exam and scheduled with the Teaching Assistant.

Accommodations

Students with disabilities who need assistance should contact the instructor immediately so that necessary forms and procedures can be completed. Please review the university's website if there are any questions: http://www.umt.edu/dss/default.htm.

Academic Integrity

"All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. All students need to be familiar with the Student Conduct Code. The Code is available for review online at: http://life.umt.edu/vpsa/student_conduct.php."

Work Evaluation and Final Grading

6 Assignments (10% each)	60 %
Three Exams (10% each)	30 %
Attendance	10 %

Grading Scheme

97-100	A+	87-89	B+	77-79	C+	67-69	D+	<60	F
93-96	A	83-86	B	73-76	C	63-66	D		
90-92	A-	80-82	B-	70-72	C-	60-62	D-		

Missed Classes

0-3	A
4	B
5	C
6	D
>6	Expulsion from Class

Late assignments will be penalized. An assignment that is turned in one day late will have 10% of the available points deducted from the score. An assignment that is turned in two days late will have 20% of the available points deducted from the score. No credit will be awarded for assignments that are more than two days late. "Day" denotes a business day (Monday through Friday) not the time interval between class meetings. For example, an assignment that is due on Thursday but turned in on Monday will be counted two days late.

Tentative Schedule

Date	Topic	Readings	Remarks
WEEK 1			
27-Jan	Introduction	---	
29-Jan	01 - Science; Systems	---	
31-Jan	02 - Shape of Earth; Global Time	Chapter 1	
WEEK 2			
03-Feb	03 - Map Projections	Chapter 1	
05-Feb	04 - Earth and Sun; Seasons	Chapter 1	
07-Feb	05 - Composition and Structure of the Atmosphere	Chapters 2+3	
WEEK 3			
10-Feb	06 - Radiation and Temperature	Chapters 2+3	
12-Feb	07 - Energy Balances	Chapter 2	
14-Feb	08 - Global Temperature Patterns	Chapter 3	**Assignment 1 due**
WEEK 4			
17-Feb	**Holiday: President's Day**	---	**NO CLASS**
19-Feb	09 - Humidity, Clouds, Precipitation	Chapter 4	
21-Feb	10 - Winds; Forces within the Atmosphere	Chapter 5	
WEEK 5			
24-Feb	11 - Atmospheric Circulation	Chapter 5	
26-Feb	12 - Oceanic Circulation	Chapter 5	
28-Feb	13 - Weather Systems	Chapter 6	**Assignment 2 due**
WEEK 6			
03-Mar	**Exam 1**	---	
05-Mar	14 - Violent Weather	Chapter 6	
07-Mar	15 - Global Climates	Chapter 7	
WEEK 7			
10-Mar	16 - Past Climates	Chapter 14	
12-Mar	17 - Global Climate Change	Chapter 3	
14-Mar	18 - The Geologic Cycle	Chapter 8	**Assignment 3 due**
WEEK 8			
17-Mar	19 - Plate Tectonics	Chapter 8	
19-Mar	20 - Plate Boundaries	Chapter 8	
21-Mar	22 - Earthquakes	Chapter 9	
WEEK 9			
24-Mar	23a - Plutonism	Chapter 9	
26-Mar	23b - Volcanism	Chapter 9	
28-Mar	24 - Weathering	Chapter 10	**Assignment 4 due**
WEEK 10			
31-Mar	**Spring Vacation**	---	**NO CLASS**
02-Apr	**Spring Vacation**	---	**NO CLASS**
04-Apr	**Spring Vacation**	---	**NO CLASS**
WEEK 11			
07-Apr	25 - Karst	Chapter 11	
09-Apr	26 - Mass Wasting	Chapter 10	
11-Apr	**Exam 2**	---	
WEEK 12			
14-Apr	27 - Hydrological Cycle	Chapter 11	
16-Apr	28 - Water Supply	Chapter 11	
18-Apr	29a - Fluvial Processes	Chapter 12	**Assignment 5 due**
WEEK 13			
21-Apr	29b - Fluvial Landforms	Chapter 12	
23-Apr	30 - Coastal Processes and Landforms	Chapter 13	
25-Apr	31 - Eolian Processes and Landforms	Chapter 13	
WEEK 14			
28-Apr	32 - Periglacial Processes and Landforms	Chapter 10	
30-Apr	33 - Glacial Processes and Landforms	Chapter 14	
02-May	34 - Soils	Chapter 15	
WEEK 15			
05-May	35 - Ecosystems	Chapter 16	**Assignment 6 due**
07-May	36 - Biodiversity and Species Loss	Chapter 16	
09-May	37 - Global Biogeography	Chapter 17	
WEEK 16			
16-May	**Exam 3, 10:10 am -12:00 pm**	---	