

# GPHY 111 – Introduction to Physical Geography

Spring 2021 (CRN 30912)

Stone Hall 304, MWF 11:00-11:50 am

**Instructor:** Ryan Rock

**Office:** Natural Sciences 313

**Office Hours:** 12 – 1 p MWF and by appointment

**Email:** ryan.rock@mso.umt.edu

**Teaching Assistant:** Marie Watson

**Office:** CHCB (Clapp Building) 412

**Office Hours:** 12-2p on Weds. And by appointment

**Email:** marie.watson@umconnect.umt.edu

## Recommended Textbook

Geosystems Core by Christopherson (ISBN: 978-0321834744)

## Course Description

Physical geography is the study of the spatial distribution of natural phenomena that interact to create a dynamic Earth. In this course, you will learn about processes occurring in the four spheres of Earth – the atmosphere, hydrosphere, lithosphere, and biosphere – that influence the environments in which we live. Physical geography helps transform abstract spaces to meaningful places.

This introductory course functions to provide students with a solid foundation in the most important physical geography concepts, including: weather, climate, seasons, water resources, plate tectonics, weathering, erosion, and landscape evolution. You will learn about earthquakes, volcanoes, avalanches, glaciers, mountains, beaches, lakes, and extreme weather. You will leave this course with an increased understanding of how our lives are so closely tied to the physical landscape.

## Learning Outcomes

1. Students will define basic terminology used to describe physical processes and landscape forms both quantitatively and qualitatively.
2. Students will understand the main variables that influence spatial variation in weather and climate processes.
3. Students will gain spatial understanding by using maps and other geographical representations to acquire, process, and report information from a spatial perspective.
4. Students will recognize the spatial distribution of landscapes, relate these differences to variations in weather and climate, and reflect on how the variation impacts their lives.

## Course Components

### Midterm Exams

Three 50-question multiple-choice midterm exams will be given during the semester. Midterm exam dates are posted on the course schedule and will not be changed. A list of topics will be posted one-week before an exam to guide your studying. It is your responsibility to arrive prepared on exam days. Midterm exam dates are subject to change depending on how quickly/slowly we are moving through the course material.

### Final Exam

A 100-question multiple-choice final exam will be given on Friday, May 13, 2022 from 10:10 AM – 12:10 PM in Stone Hall 304. The Final Exam is cumulative and mandatory for all students.

### Google Earth Projects

Five 10-point Google Earth activities will be assigned during the semester. You may submit a sixth project throughout the semester for 10 pts of extra credit. These are designed to turn abstract course concepts into something more tangible. Students will create a project in Google Earth that identifies locations in the world related to the concepts we have discussed in the lectures. For instance, if we have lectures on glaciers and avalanches, your project could include old avalanche paths, current glaciers, glacial fed rivers/lakes, glacial erratics and/or moraines.

## Course Policies

### COVID Precautions and Contingency

If you are sick or think you might be sick, stay home. I will work with you to be sure you are caught up on any assignments you may miss. If our class and/or campus at large experiences a surge of cases, we may transition to remote learning. In that case, I would deliver lectures via Zoom or have pre-recorded lectures for you to watch. Please be aware that the situation may change rapidly. I will work hard to provide you a worthwhile course, regardless of the format and I ask that you be adaptable if changes need to be made mid semester.

### Use of Moodle

Moodle is an online learning system that gives you access to course materials 24/7. Moodle will be utilized in this course in a variety of ways. The course syllabus and PowerPoint lectures will be posted, and you will submit some of your homework assignments to a Moodle dropbox. Grades for exams and assignments will all be posted to Moodle. If you have difficulty accessing the course Moodle site, please inform the course instructor immediately.

If you are asked to submit any files to Moodle, they must be submitted as either a .doc or a .pdf file. These file types are options in Microsoft Word. Files created using Mac software (Pages) are not .doc or .pdf files and are not readable in Moodle. There have also been issues working with Chromebooks. If you do not have Microsoft Office, you are advised to work on school computers in the library and various labs across campus.

## Grade Disputes

If you notice an incorrect grade is posted to Moodle, you have one week after the grade is posted to dispute the incorrect grade. If you wait until the end of the semester to dispute a missing assignment grade from Week 2, your grade will not be updated.

## Late Assignment and Missed Exams

No late assignments will be accepted and no late exams will be issued in this class. It is your responsibility to manage your time and meet deadlines. Exceptions can be made under extreme circumstances on a case by case bases. Some examples of exceptions include, but are not limited to: (1) Illness; (2) Death in the family; (3) Inability to make it to class due to automotive problems or loss of childcare; (4) Debilitating injury. In order to be granted an exception, you must provide documentation validating your excuse. I ask that you are proactive in communicating with me regarding missed deadlines. This means that you should reach out to me ASAP, preferably before class, to communicate your issue and provide documentation. If you wait until after you miss class or an assignment, an exception may not be granted.

## Electronic Devices

Please refrain from using your cell phone in class. I understand you'll want to check the time occasionally, but if you are on your phone consistently during course you will be asked to leave. Please plan on using a notebook to take your notes. Computers tend to be a distraction for both the user and people sitting nearby.

## Course Communication

I will send out emails to the class regularly. If you do not attend class or check your email regularly, you will likely miss out on important information. All email correspondence must go through your university email. You can email me to ask questions on course materials, to set up a meeting, or with any other questions or concerns. If you email me from a non-school email account I will not respond. Please work only with your university email account.

## Dropped Grades

At the end of the semester, when calculating your final average for this course, one assignment will be dropped. This means that your final grade will be an average of three midterm exams, one final exam, five assignments, and five Google Earth Projects. Please keep in mind that you are not permitted to make up exams, assignments, or projects.

## Academic Misconduct

Academic misconduct is taken very seriously, and the course instructor will not hesitate to investigate and discipline any student suspected of violating the following criteria:

- Plagiarism of any kind on assignments
- Copying material from another student or from the internet during an exam
- Signing another student's name on the sign in sheet
- Disclosing exam content during or after you have taken the exam
- Removing exam material from the classroom or instructor's office
- Causing repeated disruptions during class lectures

If a student is caught violating these criteria, the department chair and dean will be notified to determine proper disciplinary action. More detailed information is outlined in the [Student Conduct Code](#).

### Disability Modifications

Every student enrolled in this course will have an equal opportunity to succeed. If you believe you have a disability that will hinder your performance in this class, please contact Disability Services to create a plan that ensures proper accommodation of your needs. *All documentation from Disability Services must be provided to the course instructor.*

Disability Services can be accessed at any point during the semester.

### Disability Services for Students

Lommasson Center 154

Phone: (406) 243-2243

### Final Grade Components

<b>Midterm Exams</b>	45%
<b>Google Earth Projects</b>	35%
<b>Final Exam</b>	20%

### Grade Breakdown

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
93.3-100%	90-93.2%	86.7-89.9%	83.3-86.6%	80-83.2%	76.7-79.9%	73.3-76.6%	70-73.2%	66.7-69.9%	63.3-66.6%	60-63.2%	<60%

### Schedule

Week	Date	Topic
1	1/17/2021	<b>No Classes - Martin Luther King Jr. Day</b>
	1/19/2021	Review Syllabus and Moodle
	1/21/2021	What is physical geography?
2	1/24/2021	Maps and Cartography
	1/26/2021	Maps and Cartography
	1/28/2021	Earth Locations

Week	Date	Topic
3	1/31/2021	Global Time
	2/2/2021	Solar Energy
	2/4/2021	<b>NO CLASS</b>
4	2/7/2021	Seasons
	2/9/2021	Global Temperature
	2/11/2021	The Atmosphere
5	2/14/2021	Energy in the Atmosphere
	2/16/2021	<b>Exam #1</b>
	2/18/2021	Atmospheric Circulation
6	2/21/2021	<b>No Classes - President's Day</b>
	2/23/2021	Atmospheric Circulation
	2/25/2021	Humidity
7	2/28/2021	Atmospheric Stability
	3/2/2021	Clouds and Fog
	3/4/2021	Air Masses and Lifting Mechanisms
8	3/7/2021	<b>Exam #2</b>
	3/9/2021	Global Climate Systems and Climate Change
	3/11/2021	Water Resources and Scarcity
9	3/14/2021	Oceanic Circulation
	3/16/2021	Rocks and Tectonics
	3/18/2021	Rocks and Tectonics
10	3/21/2021	<b>No Classes - Spring Break</b>
	3/23/2021	<b>No Classes - Spring Break</b>
	3/25/2021	<b>No Classes - Spring Break</b>
11	3/28/2021	Earthquakes and Faulting
	3/30/2021	Volcanoes and Mountain Building
	4/1/2021	Weathering and Mass Movement
12 (BSGC)	4/4/2021	Fluvial Erosion and Deposition
	4/6/2021	<b>No Class -- tentative</b>
	4/8/2021	Fluvial Landscapes
13	4/11/2021	Coastal Processes
	4/13/2021	<b>Exam #3</b>
	4/15/2021	Coastal Landforms
14	4/18/2021	Wind Processes and Landforms
	4/20/2021	Glacial Processes and Landforms
	4/22/2021	Periglacial Landscapes
15	4/25/2021	Energy Flow and Nutrient Cycles
	4/27/2021	Communities, Species Interactions & Distributions
	4/29/2021	Biomes and Ecotones
16	5/2/2021	Invasive Species
	5/4/2021	Terrestrial Biomes

<b>Week</b>	<b>Date</b>	<b>Topic</b>
	5/6/2021	<b>EXAM REVIEW</b>
<b>Finals Week</b>	5/9/2021	<b>No class</b>
	5/11/2021	<b>No class</b>
	<b>5/13/2021</b>	<b>Final Exam, 10:10 AM - 12:10 PM, Stone Hall 304</b>