GPHY 111N - Intro to Physical Geography:
Climate, Landforms & Vegetation
Spring 2024

Instructor Information

Instructor: Ashley Ballantyne, Professor
Dept of Ecosystem and Conservation Sciences
Email: ashley.ballantyne@umontana.edu
Office Hours: 1-2:00 Fri. (or by appointment)
Office: CHCB 435

Instructor: Rebecca Kranitz, Instructor
Department of Geography
Email: rebecca.kranitz@umontana.edu
Office Hours: Email to schedule appointment
Office: Main Hall 205 (MWF), Remote (T/Th)

Teaching Assistant: Bianca Giunti
Email: bianca.giunti@umconnect.umt.edu
Office Hours: Thursday 3-4:00 (or by appointment)
Office: Stone Hall 208

Course Meeting Time & Location

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

Course Description

This course introduces students to Earth system science by exploring its many spheres and how they interact. You will learn fundamental principles of climate, landforms, earth surface processes, and ecosystems to gain a better understanding of Earth's ecosystems from regional to global scales. We will discuss topics such as global warming and climatic change, the ozone layer, extreme events, volcanoes, earthquakes, mountain landscapes, and the distribution of biomes. It provides essential background for further study in meteorology, climatology, hydrology, ecology, biogeography, geology, and physical geography. You will also learn about the scientific method as a tool of inquiry for understanding natural phenomena.

Learning Outcomes

Upon successful completion of the course, you should be able to:

- Define basic terminology used to describe physical processes and landscape forms.
- Describe the main factors that influence spatial variation in weather and climate processes, ecosystems, and landscapes.
- Demonstrate spatial understanding by using maps and other geographical representations to acquire, process, and report information from a spatial perspective.
- Describe the spatial distribution of landscapes, relate these differences to variations in weather and climate, and reflect on how the variations impact people.

Required Materials

This course uses a platform called Mastering Geography from the company Pearson. You will complete interactive homework activities through this platform, and this is where you'll access the e-book. You must purchase a subscription to Mastering Geography through the UM Bookstore. Upon purchasing, you'll receive an access code that you'll use to sign in to the platform.

The e-book is largely accessible, but lacks proper heading structure (though headings are still present), and certain images lack alt-text. A print copy is available for purchase (ISBN: 978-0-135-82714-7). Several copies of the print copy are on reserve at the library as well.

Course Policies

Attendance

Attendance is not factored into your final grade, however, you are expected to attend class during scheduled meeting times. You are not permitted to arrive late or leave early without prior approval. If you miss a scheduled exam, your absence will be excused for the following reasons, given that formal documentation is provided:

1. Illness
2. Death in the family
3. Loss of childcare
4. Debilitating injury
5. Cultural/Religious (documentation should include a brief description (with dates) and the importance of the student's participation)
6. Military service or mandatory public service
7. NCAA obligations

You are not permitted to make up missed quizzes, so you do not need to submit documentation if you miss class on a day that a quiz is given. Homework and Journals are completed in Moodle, not in class. If an absence is excused for any reason, students remain responsible for scheduling exam makeups with the instructor or TA. Please, as best as you can, be proactive in your communications for known absences that qualify for excusal.

Moodle

Moodle will be used to share learning materials (lectures and readings), to complete activities (homework and journals), and to share student grades in the gradebook. You will also find the course syllabus, schedule and deadlines, and instructor contact information in the Moodle page. If you have difficulty accessing the course Moodle page, please inform the instructors immediately.

Course Communication

Instructors will communicate deadlines during lecture and on the course Moodle page. Occasionally, instructors will send emails to the course with important updates and information. It is the student's responsibility to check email regularly. All email correspondence must go through your university email. Do not email the instructors or TA from a personal email account.

Grade Disputes

If you notice an incorrect grade is posted to Moodle, you will have one-week after the grade is posted to dispute the grade. Please plan to check your grades regularly, and understand that it is your responsibility to promptly communicate with the instructor if an error is identified.

Late Submissions and Missed Quizzes & Exams

You are required to complete journals, homework assignments, quizzes, and exams in this class. You are not permitted to submit journals late or to re-take a missed quiz. If you miss an exam, it will only be rescheduled given that appropriate documentation for an excused absence is provided. The only activity that will be accepted late are homework assignments. Late submissions of homework will result in a 5% deduction per each calendar day, including weekends, following the submission deadline.

Academic Misconduct

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 UM Student Conduct Code.

Disabilities Accommodation

UM assures equal access to instruction through collaboration between students with disabilities, instructors, and the Office for Disability Equity. If you think you may have a disability adversely affecting your academic performance, and you have not already registered with Disability Equity, please contact ODE in Aber Hall or call 406.243.2243. We will work with you and ODE to provide reasonable accommodations.

If you are already registered with ODE, it is your responsibility to submit your accommodation form to your instructors at the beginning of the semester. Reasonable accommodations will only be provided once official documentation is received.

Please know that we make every effort to provide accessible content for this course. If you have any issues opening, reading or viewing content, please let me know and I will get it remediated as quickly as possible.

Basic Needs Security

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact the Office of Student Success for support. Additionally, UM's Association of University Students has a variety of resources such as the UM Food Pantry, legal services, housing assistance and emergency loans (see Bear Necessities).

Recording in Class

Montana law requires that if you wish to record a lecture, you must first inform the instructor and they must consent before you do so.

Important Dates

The following Important Dates and Deadlines are set by UM's Registrar's Office.

- **1/26/2024: 7th Day of Class**
  - Last day to add classes in CyberBear without consent of instructor.
- **2/7/2024: 15th Day of Class**
  - Last day to drop classes in CyberBear with no W on transcript, and partial tuition refund where applicable.
  - Last day to withdraw from all registered classes.
  - Last day to change grading option to or from audit.
- **3/28/2024: 45th Day of Class**
  - Last day to drop class and receive a W on transcript, not eligible for tuition refund.
- **5/3/2024: Last day of Class**
  - Last day to drop a class and receive a WP or WF on transcript, not eligible for tuition refund.
  - Last day to change grading option from traditional letter grade to credit/no credit.

Grading Policy

Activity	Total Points
In-Class Quizzes (12 total, 5 points each, drop lowest 2)	50
Assignments (12 total, 10 points each, drop lowest 2)	100
Journals (12 total, 5 points each, drop lowest 2)	50
Midterm Exams (2 total, 50 points each)	100
Final Exam	100
Total	**400**

At the end of the course, the distribution will be examined and letter grades assigned to the following categories: A=>90%, B=80-90%, C=70-80%, D=60-70%, etc. The "+/-" grading system will be used for students on the margins of these categories.

You are permitted to change your grading option from a Traditional Letter Grade to Credit/No Credit. Note that you are required to earn a Traditional Letter Grade for this course to fulfill General Education and Major/Minor Requirements. A grade option of Credit/No Credit will not fulfill General Education and Major/Minor Requirements, but you will earn credit if you receive a grade higher than D-. **It is the student's responsibility to check with their Academic Advisor before electing to change from a Traditional Letter Grade to Credit/No Credit, as this change could have serious implications on your financial aid eligibility.** Instructors will approve grade option change requests assuming the student understands the implications of their own decision.

Graded Items

Quizzes

Pop quizzes will be given during class. Preparation is key to success on quizzes – read the assigned material, pay attention during lecture, identify any content that you would like clarified, and be sure to remain until the end of class to complete the quizzes. Your two lowest quiz scores will be dropped. **As these are in-class quizzes, they will require your presence in class and cannot be made up.**

Homework

Homework will be assigned using the Mastering Geography platform and is completed outside of class. You will access the homework through the course Moodle page in the appropriate week. Homework is automatically graded, and your grade will be visible in the Moodle gradebook. You are allowed to complete each homework twice and your highest grade will be counted. After your first attempt, you'll see which questions you got wrong, but you will not be provided with the correct answers. Your two lowest homework grades will be dropped. **Homework that is submitted late is subject to the course's Late Submission Policy (listed in Course Policy section of the syllabus).** After the homework deadline has passed, you'll be able to rework assignments to practice for exams.

Journals

Journals are designed prompt personal reflection on your connection to the physical world and how the physical world influences society and culture and your own life choices. Journals are not formal assessments, and there are no right or wrong answers to journal prompts. Instead, these can be considered course participation. Journals are worth 5 points each and are automatically graded. The instructors and/or TA will check journal responses to ensure submissions are adequate and appropriate, and will deduct points from those who do not provide full responses, or do not make any attempt to answer the questions. Your two lowest journals will be dropped. **No late journals will be accepted.**

Exams

Three examinations are scheduled during the semester: two midterms and one cumulative final exam. Exam questions will focus on concepts introduced in the readings that have been reviewed in lecture, so it is important that you attend classes regularly and pay particular attention to the content of lectures as you prepare for exams. **We will only allow make-up exams if documentation is provided.**

Course Schedule:

The course schedule is subject to change. Any changes will be announced in class and via email, and an updated syllabus will be posted to Moodle

Weeks 1-8

Week	Topics	Readings	Assignments
1 1/18-1/21	F: Course Introduction and Expectations	Chapters 1 & 2	
2 1/22-1/28	M: Atmospheric Structure W: Atmospheric Composition F: Atmospheric Circulation	Chapter 3	In Class Quiz 1 Homework 1
3 1/29-2/4	M: Solar Insolation W: Surface Temperature F: Global Energy Budget	Chapter 4	In Class Quiz 2 Homework 2
4 2/5-2/11	M: Atmospheric Pressure W: Atmospheric Wind Patterns F: Global Circulation	Chapter 5	In Class Quiz 3 Homework 3
5 2/12-2/18	M: Atmospheric Moisture W: Latent Heat F: Cloud Processes	Chapter 6	In Class Quiz 4 Homework 4
6 2/19-2/25	**M: No Class (President's Day, 2/19)** W: Atmospheric Disturbances F: Atmospheric Disturbances	Chapter 7	In Class Quiz 5 Homework 5
7 2/26-3/3	M: Global Climate W: Climate Change F: **Midterm 1: Friday, March 1**	Chapter 8	Exam Preparation **Midterm 2**
8 3/4-3/10	M: Past Climate W: Hydrologic Cycle F: Ocean Chemistry **Last week with Dr. Ballantyne**	Chapter 9	In Class Quiz 7 Homework 7

Weeks 9-16

Week	Topics	Readings	Assignments
9 3/11-3/17	M: Landforms W: Geologic Processes I F: Geologic Processes II **First week with Rebecca**	Chapter 13 Chapter 14	In Class Quiz 7 Homework 7
Spring Break 3/18-3/24	No class	No Readings	No Assignments
10 3/25-3/31	M: Weathering & Mass Wasting I W: Weathering & Mass Wasting II F: Fluvial Processes I	Chapter 15 Chapter 16	In Class Quiz 8 Homework 8
11 4/1-4/7	M: Fluvial Processes II W: Fluvial Processes II F: Karst & Hydrothermal Processes	Chapter 16 Chapter 17	In Class Quiz 9 Homework 9
12 4/8-4/14	M: Glacial Processes I W: Glacial Processes II F: **Midterm 2: Friday, April 14**	Chapter 19	In Class Quiz 10 Homework 10 **Midterm 2**
13 4/15-4/21	M: Arid Landscapes W: Coastal Processes F: Cycles & Patterns in the Biosphere I	Chapter 18 Chapter 20 Chapter 10	In Class Quiz 11 Homework 11
14 4/22-4/28	M: Cycles & Patterns in the Biosphere II W: Terrestrial Ecosystems I F: Terrestrial Ecosystems II	Chapter 10 Chapter 11	In Class Quiz 12 Homework 12
15 4/29-5/3	M: Soils I W: Soils II F: EXAM REVIEW	Chapter 12	Exam Preparation
16 5/4-5/9	**Final Exam:** Thursday, May 9 @ 10:10 – 12:10 am		**Final Exam (cumulative)**