

Welcome to Online GEOG1111 Physical Geography Class!

Instructor information

Course Description

In this course, students will study the spatial patterns of Earth's physical environment, including Earth's atmosphere, water, land and living systems. More importantly, students will gain a better understanding of Earth's dynamic **processes** that generate the climates and landscapes we see today on Earth. Topics covered include Earth-Sun geometry, Earth's atmosphere and energy budget, wind patterns, moisture, clouds, and precipitation, Earth's temperature, global climate and climate change, plate tectonics, earthquakes, volcanoes, as well as biogeography. Interactive assignments for each topic will help reinforce the topics/concepts covered and engage students in scientific methods and critical thinking.

Course Learning Outcomes/Objectives

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

- Demonstrate an understanding of the scientific method.
- Demonstrate a breadth of knowledge of the spatial and temporal variation in physical surficial processes on the Earth's surface.
- Demonstrate a breadth of knowledge of how humans have altered the physical surficial processes on the Earth's surface and demonstrate the interdependent relationship between natural and human cultural environments.

Required Course Materials

This course uses Open Educational Resources (OER) in place of a traditional textbook. These high-quality, freely accessible resources are available at no additional cost. The primary OER textbooks for this course are listed below. For weekly reading assignments, refer to the course schedule on pages 6-8, where specific readings from each textbook are listed. Please note that each textbook is referred to by the author's last name in the course schedule.

- **Ritter, M. E.** *The Physical Environment*. LibreTexts, University of Wisconsin-Stevens Point. Available at <https://commons.libretexts.org/book/geo-15158>. Licensed under CC BY 4.0.
- **Patrich, J.** *Physical Geography*. College of the Canyons OER Publication, authored and compiled by Jeremy Patrich, with contributions from Cady Carmichael and Mary Bates. Available at <https://open.umn.edu/opentextbooks/textbooks/926>. Licensed under CC BY 4.0.
- **Southard, J.** *The Environment of the Earth's Surface*. LibreTexts, Massachusetts Institute of Technology. Available at <https://commons.libretexts.org/book/geo-13458>. Licensed under CC BY 4.0.

- **Ray, W. C., Lazootin, T. C., Crosier, S. J., Patrich, J. G., and Gregorio, A. N.** *Physical Geography Lab Manual*. ASCCC Open Educational Resources Initiative (OERI), curated and adapted for the LibreTexts platform. Available at [https://geo.libretexts.org/Bookshelves/Geography_\(Physical\)/Physical_Geography_Lab_Manual_\(Ray_et_al.\)](https://geo.libretexts.org/Bookshelves/Geography_(Physical)/Physical_Geography_Lab_Manual_(Ray_et_al.)). Licensed under CC BY-NC 4.0.

Course Activities and Grading

There will be 3 midterm exams, 1 cumulative final exam, several discussion posts, quizzes, and labs, as follows:

Exam #1	15%
Exam #2	15%
Exam #3	15%
Final Exam	15%
Discussion Posts	15%
Assignments & Quizzes	20%
Labs	5%
	100%

The format of questions on exams will be a combination of multiple-choice, fill-in the blank, short-answer questions, map/diagram analysis, and 1~2 essay questions.

Final grades will be computed based on the percentage of total points earned in the course, on the following scale:

A = 90.00 - 100%
B = 80.00 - 89%
C = 70.00 - 79%
D = 60.00 - 69%
F = 0 - 59%

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Course Schedule

Week	Topics	Learning Activities	Assignments Due Dates
1	Course overview & Syllabus & Core assessment & Geospatial technology	Lesson 0 -Read Syllabus -Watch Course Overview Video -Complete core assessment -Watch Geospatial Revolution 5 episodes (total length: ~1.5 hrs) -Post Response to Discussion 0 -Read Ritter Chapter 1 (1.1-1.7) and Chapter 2 (2.3, 2.4, 2.6, 2.7) and Patrich Unit 1 (pp. 7-21)	-Attendance verification -Core assessment -Discussion 0
2	Essentials of geography	Lesson 1 -Read Ritter Chapter 1 (1.1-1.7) and Chapter 2 (2.3, 2.4, 2.6, 2.7) and Patrich Unit 1 (pp. 7-21) -Read Lesson 1 Course Materials on Essentials of geography -Watch Lesson 1 Lecture Video -Post Response to Discussion 1 -Complete Quiz 1	-Discussion 1 -Quiz 1
3	Solar energy, Earth-sun relationships, and the seasons	Lesson 2 -Read Ritter Chapter 2 (2.1, 2.2) and Patrich Units 2 (pp. 22-38) and 5 (pp. 66-75) -Read Lesson 2 Course Materials on Solar energy, Earth-sun relationships, and the seasons -Watch Lesson 2 Lecture Video -Post Response to Discussion 2 -Complete Quiz 2	-Discussion 2 -Quiz 2
4	Earth's atmosphere	Lesson 3 -Read Ritter Chapter 3 (3.1-3.6) and Patrich Unit 6 (pp. 76-82) -Read Lesson 3 Course Materials on Earth's atmosphere -Watch Lesson 3 Lecture Video -Post Response to Discussion 3 -Complete Quiz 3	-Discussion 3 -Quiz 3
5	Exam#1 & LabA & Our Planet Fresh Water	-Review the reading materials from Weeks 1-4 -Review Exam#1 Study Guide -Review Lecture Materials Lessons 1-3 -Complete Exam#1 -Watch Our Planet Fresh Water Video -Complete Our Planet Fresh Water Assignment -Complete LabA	-Our Planet Fresh Water Assignment -Exam#1 -LabA
6	Atmospheric energy, radiation, and temperatures	Lesson 4 -Read Ritter Chapters 4 (4.1-4.8) and 5 (5.1-5.6), and Patrich Unit 6 (pp. 82-84) -Read Lesson 4 Course Materials on Atmospheric energy, radiation, and temperatures -Watch Lesson 4 Lecture Video -Post Response to Discussion 4 -Complete Quiz 4	-Discussion 4 -Quiz 4
7	Atmospheric and ocean circulations	Lesson 5 -Read Ritter Chapter 6 (6.1-6.11) and Patrich Unit 6 (pp. 84-94) -Read Lesson 5 Course Materials on Atmospheric and ocean circulations -Watch Lesson 5 Lecture Video -Post Response to Discussion 5 -Complete Quiz 5	-Discussion 5 -Quiz 5

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8	Water and atmospheric moisture	Lesson 6 -Read Ritter Chapter 7 (7.1-7.8) and Patrich Unit 7 (pp. 95-100) -Read Lesson 6 Course Materials on Water and atmospheric moisture -Watch Lesson 6 Lecture Video -Post Response to Discussion 6 -Complete Quiz 6	-Discussion 6 -Quiz 6
9	Exam#2 & LabB & The Year Earth Changed	-Review the reading materials from Weeks 6-8 -Review Exam#2 Study Guide -Review Lecture Materials Lessons 4-6 -Complete Exam#2 -Watch The Year Earth Changed Video -Complete The Year Earth Changed Assignment -Complete LabB	-The Year Earth Changed Assignment -Exam#2 -LabB
10	Spring break - No classes		
11	Weather	Lesson 7 -Read Ritter Chapter 8 (8.1-8.8) and Patrich Unit 7 (pp. 101-114) -Read Lesson 7 Course Materials on Weather -Watch Lesson 7 Lecture Video -Post Response to Discussion 7 -Complete Quiz 7	-Discussion 7 -Quiz 7
12	Water resources	Lesson 8 -Read Ritter Chapter 10 (10.1-10.5), Southard Chapter 12 (12.2) & Chapter 4 (4.1-4.6) -Read Lesson 8 Course Materials on Water resources -Watch Lesson 8 Lecture Video -Post Response to Discussion 8 -Complete Quiz 8	-Discussion 8 -Quiz 8
13	Earth's climatic regions	Lesson 9 -Read Ritter Chapter 9 (9.1-9.9) and Patrich Unit 7 (pp. 110-112) -Read Lesson 9 Course Materials on Earth's climatic regions -Watch Lesson 9 Lecture Video -Post Response to Discussion 9 -Complete Quiz 9	-Discussion 9 -Quiz 9
14	Exam#3 & LabC	-Review the reading materials from Weeks 11-13 -Review Exam#3 Study Guide -Review Lecture Materials Lessons 7-9 -Complete Exam#3 -Complete LabC	-Exam#3 -LabC
15	Plate tectonics	Lesson 10 -Read Ritter Chapters 14 (sections 14.1-14.2), 15 (sections 15.1-15.4), and 16 (sections 16.1-16.5) and Patrich Units 13-15 (pp. 180-228) -Read Lesson 10 Course Materials on Plate tectonics -Watch Lesson 10 Lecture Video -Post Response to Discussion 10 -Complete Quiz 10	-Discussion 10 -Quiz 10
16	Glaciers & Terrestrial biomes	Lesson 11 -Read Southard Chapter 7 (7.1-7.6), Ritte Chapter 19 (19.1-19.6), Patrich Unit 19 (pp. 278-297) -Read Lesson 11 Course Materials on Glaciers -Watch Lesson 11 Lecture Video -Post Response to Discussion 11 -Complete Quiz 11	-Discussion 11 -Quiz 11 -Discussion 12 -Quiz 12

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		Lesson 12 -Read Ritter Chapter 13 (13.1-13.7) -Read Lesson 12 Course Materials on Terrestrial biomes -Watch Lesson 12 Lecture Video -Post Response to Discussion 12 -Complete Quiz 12	
17	Final Exam	-Complete Core Assessment -Complete Final Exam	-Core Assessment -Final Exam