

PHYSICAL GEOGRAPHY - GEOG1306-1 (3 credit hours) Spring 2022 Syllabus

Part 1: Course Information

Instructor Information

Instructor: Dr. Hernan A. Moreno

Email: moreno@utep.edu

Learning Management Site: UTEP blackboard

Classroom: Undergraduate Learning Center (ULC 342)

Lectures: TR 10:30 AM – 11:50 AM (MT)

Virtual Office:

<https://utep-edu.zoom.us/j/89052203238?pwd=bzEvVDIVemh3QUZ5UzU4NDh4NTJJUT09>

Meeting ID: 890 5220 3238

Passcode: H7bS6gbD

Office Hours: T 3:00 PM – 4:30 PM or by appointment

Course Communication: Blackboard course announcements and email

Teaching Assistant: Eddie Zuniga (elzuniga@miners.utep.edu)

TA Office hours: W 4:30 -5:30 PM

TA Virtual Office:

<https://utep-edu.zoom.us/j/83211963212?pwd=MHc3Nk5YcVF4RjRaaHBIRFZFWRjUT09>

Course Description

Physical Geography brings together elements of astronomy, climatology, hydrology, oceanography, geology, geomorphology, biology and ecology to understand the processes responsible for the physical patterns of climate, water, soils, vegetation, and landforms found over the earth.

Part 2: Tentative Schedule (subject to changes)

Wk #	Date	Lec. #	Topic	Book Ch.	Blackboard Discussion	Lab. GEOG1106 Optional
1	18 Jan (T)	1	Preliminaries and introduction to the course.	1		0.Intro Lab
	20 Jan (R)	2	ESSENTIALS OF GEOGRAPHY: The science of geography. Earth system concepts. Location and time on Earth. Maps and cartography. Modern tools and techniques for geosciences.	1		
2	25 Jan (T)	3	SOLAR ENERGY TO EARTH AND THE SEASONS: The solar system. Sun and Earth. The solar energy.	2		1. Orientation, scale, maps
	27 Jan (R)	4	SOLAR ENERGY TO EARTH AND THE SEASONS: Earth seasons and the annual cycle of energy	2		
3	1 Feb (T)	5	EARTH'S MODERN ATMOSPHERE: Atmospheric layers. Atmospheric composition, temperature and function. Pollutants in the atmosphere.	3		2. Location

Wk #	Date	Lec. #	Topic	Book Ch.	Blackboard Discussion	Lab. GEOG1106 Optional
	3 Feb (R)	6	ATMOSPHERIC ENERGY: Radiation, types of heat transfer, energy pathways, albedo.	4		and seasons
4	8 Feb (T)	7	SURFACE ENERGY BALANCE: Energy balance at the Earth's surface, greenhouse effect, urban heat island effect.	4		3. Global temperatures and precipitation
	10 Feb (R)	8	GLOBAL TEMPERATURES: Temperature concepts and measurements. Principal temperature controls. Earth's temperature patterns and human response to trends.	4		
5	15 Feb (T)	9	TEST 1: Weeks 1 through 4	1-4	1 st Due	No Lab
	17 Feb (R)	10	ATMOSPHERIC AND OCEANIC CIRCULATIONS: Wind essentials. Driving forces within the atmosphere. Atmospheric patterns of motion. Oceanic currents. Natural oscillations in global circulation.	5		
6	22 Feb (T)	11	WATER AND ATMOSPHERIC MOISTURE: Water's unique properties. Humidity.	6		4. Atmos. Circulat.
	24 Feb (R)	12	WATER AND ATMOSPHERIC MOISTURE: Atmospheric stability. Phase changes. Clouds and fog.	6		
7	1 Mar (T)	13	WEATHER: Air masses. Atmospheric lifting mechanisms. Cold and warm fronts. Mid latitude cyclonic systems.	7		5. Moisture & atmos stability
	3 Mar (R)	14	WEATHER: Violent weather. Thunderstorms, tornadoes, tropical cyclones.	7		
8	8 Mar (T)	15	TEST 2: Weeks 5 through 7	5-7	2 nd Due	6. Air masses and weather
	10 Mar (R)	16	WATER RESOURCES: Water on earth. The hydrologic cycle. Precipitation, evapotranspiration, soil moisture. Water budget and resource analysis.	8		
9	Mar. 14 th - 18 th		Spring Break			
10	22 Mar (T)	17	WATER RESOURCES: Surface and groundwater resources.	8		7. Water budget
	24 Mar (R)	18	EARTH'S CLIMATE AND ITS VARIABILITY: Review of Earth's climate system. Fundamentals of climate change, evidence and projections.	10		
11	29 Mar (T)	19	THE DYNAMIC PLANET: The pace of change. Earth's structure and internal energy. Buoyancy and isostasy.	11		8. Earth interior and the rock cycle
	31 Mar (R)	20	THE DYNAMIC PLANET: Earth materials and the rock cycle. Plate tectonics. The geologic cycle.	11		
12	5 Apr (T)	21	TECTONICS, EARTHQUAKES AND VOLCANISM: Major topographic regions of the world. Earth's hypsometry. Crustal formation and deformation. Orogenesis. Earthquakes. Volcanoes.	12		9. Plate tectonics, earthquakes and volcanoes
	7 Apr (R)	22	WEATHERING, KARST LANDSCAPES, AND MASS MOVEMENT: The landscape system and the dynamic equilibrium approach. Weathering factors and processes. Karst topography.	13		

Wk #	Date	Lec. #	Topic	Book Ch.	Blackboard Discussion	Lab. GEOG1106 Optional
13	12 Apr (T)	23	TEST 3: Weeks 8 through 12	8-12	3 rd Due	No Lab
	14 Apr (R)	24	WEATHERING, KARST LANDSCAPES, AND MASS MOVEMENT: Mass-movement processes and types.	13		
14	19 Apr (T)	25	RIVER SYSTEMS: Drainage basins, rivers and drainage patterns. Basic fluvial concepts. Discharge.	14		10. Mass movements and karst
	21 Apr (R)	26	RIVER SYSTEMS: Urbanization and hydrologic response, fluvial transport, channel patterns, depositional landforms, floodplains, alluvial fans, river deltas.	14		
15	26 Apr (T)	27	EOLIAN PROCESSES: Wind erosion, transportation and depositional forms. Desert landscapes.	15		11. Fluvial processes and landforms
	28 Apr (R)	28	OCEANS AND COASTAL SYSTEMS: Global oceans and seas. Ocean chemistry. Coastal system components. Tides. Waves. Tsunami. Coastal processes and landforms, coral formations and reefs, coastal wetlands, coastal salt marsh, mangroves.	16		
16	3 May (T)	29	GLACIAL AND PERIGLACIAL LANDSCAPES: The basis of glaciers. Types of glaciers. Glacial processes. Glacial landforms.	17		12. Desert processes and landforms
	5 May (R)	30	GLACIAL AND PERIGLACIAL LANDSCAPES: Periglacial landscapes. Permafrost distribution. Artic and Antarctic Regions.	17		
17	12 May (R)	31	Test 4: Weeks 12 through 16 Thursday, May 12th from 10 AM to 12:45 PM	13-17		No Lab

*Lab column only applies to students that are also taking GEOG1106 (Lab for Physical Geography- 1 credit). Please consult your GEOL1106 Syllabus for exact details on meeting times, room and topics.

Part 3: Evaluation and Grading Policy

Graded Course Activities

Percent	Description
60	4 Exams (15% each)
25	Quizzes
15	3 Blackboard discussions (5% each)
100	Total Points Possible
Extra-credit	All exams will include, at least, 5 additional questions for extra-credit

Final grade table

Percent grades will be rounded to one decimal place and letter grades will have the following equivalence:

Letter Grade	Grade Point	Percentage
A	4.0	89.5 to 100
B	3.0	79.5 to 89.4
C	2.0	69.5 to 79.4
D	1.0	59.5 to 69.4
F	0.0	59.4 to 0

Part 3: Additional Important Information

Textbook & Course Materials

- Geosystems: An Introduction to Physical Geography (10th Edition). Robert Christopherson and Ginger Birkeland. Prentice Hall.
- You will find my presentations, recorded lectures, exam review documents, and additional information in our UTEP Blackboard course. If you encounter any problems accessing this course within Blackboard, please contact the UTEP helpdesk (helpdesk@utep.edu).
- The Laboratory section for Physical Geography (GEOG1106) is highly recommended to better grasp the concepts covered during the theoretical part of the course. Students that have not enrolled yet in this section are highly encouraged to do so at their earliest convenience.

Overarching Goals and Learning Outcomes

- Students should be able to describe the major concepts, terms, principles, and tools used by physical geographers to interrelate the elements of the physical environment in terms of both patterns and processes. Specifically, students should be able to identify the processes responsible for climate, vegetation and soil and landform patterns, and water resources distribution.
- Given an unfamiliar region on the globe, students should be able to predict natural patterns of climate, vegetation, and landforms within this region.
- Students should be able to describe the major environmental hazards in the world today and what possible impacts these have on society.

My expectations of You

- You will go over the materials for a particular class period before the start of class.
- Per the nationwide standard for university scholarship, you will study (read, review, reflect, practice, do homework) at least two hours for every hour you are in lecture.

Teaching Philosophy

- Learning is a process. To learn, a student must engage in the process. I design my courses to facilitate the learning process, but a student will only learn if they engage with the course contents through reading, learning from directed online videos, colleague and professor interactions and assessments.
- Learning takes time and effort. You are building new connections in your brain when learning. This cannot be done quickly or without effort. It is important to take time to

study, practice, and reflect in this course.

Course Structure

- This course is structured in 80 minute lectures. The in-class meetings are accompanied by pre-recorded lectures and PDF files of each class presentation for further studying.
- The required textbook provides a solid background for the course. However, there may be material in the lectures that is not in the text.
- Attendance to all lecture sessions is mandatory. The subject of physical geography cannot be fully appreciated without the synthesis of the many topics we learn about throughout the semester. This is a fast-paced course; therefore it's particularly important that you keep up with the lectures, readings and evaluations.

Class Recordings

The use of recordings will enable you to have asynchronous and previous access to lectures in preparation for our in-class discussions and quizzes. Our use of such a technology is governed by the Federal Education Rights and Privacy Act (FERPA) and UTEP's acceptable-use policy. A recording of class sessions will be kept and stored by UTEP, in accordance with FERPA and UTEP policies. You may not share recordings outside of this course. Doing so may result in disciplinary action.

Learning Modules

This course is designed using a modular format—that is, each week is “packaged” as a single module so that all the materials, lecture recordings, lecture notes and submission areas are in one area for a given week.

iClicker Polling

- This class will be using iClicker this term. iClicker Polling helps me to understand what you know, gives everyone a chance to participate in class through polling Quizzes, and allows you to review the material after class. I will also use iClicker Polling to keep track of attendance and participation.
- You will need to create an iClicker Polling account to poll in class using your laptop, smart phone, or tablet connected to the university's Wi-Fi. Go <https://www.iclicker.com> or download the iClicker Polling app to sign up for an account. You should use your university email address and your UTEP Student ID field. Do not create and use more than one iClicker Polling account as you will only receive credit from a single account.
- You will need to purchase a subscription to use iClicker Polling (15.99 USD for 6 months). Creating an iClicker Polling account automatically starts a free 14-day trial subscription.
- I consider submitting quiz answers for a fellow student to be cheating and a violation of the University Honor Code. If you are caught voting for another student or have votes in a class that you did not attend, you will forfeit all iClicker Polling point and may face additional disciplinary action.

Network and General Etiquette (Etiquette & Netiquette)

- Classes will be presential but office hours will be held through Zoom as indicated on the first page of this syllabus.
- As we know, sometimes communication can be challenging. It's possible to miscommunicate what we mean or to misunderstand what our classmates mean. Therefore, please keep these etiquette guidelines in mind. Failure to observe them may result in disciplinary action.
- Always consider audience. This is a college-level course; therefore, all communication should reflect polite consideration of other's ideas.
- Respect and courtesy must be provided to classmates and to the instructor at all times. No harassment or inappropriate postings will be tolerated.
- When reacting to someone else's message, address the ideas, not the person. Post only what anyone would comfortably state in a face-to-face situation.
- Blackboard is not a public internet venue; all postings to it should be considered private and confidential. Whatever is posted on in these online spaces is intended for classmates and professor only. Please do not copy documents and paste them to a publicly accessible website, blog, or other space.

Tests

There will be four TRUE/FALSE and multiple selection exams worth 15% each that are not cumulative. Review documents will be posted on Blackboard providing examples of the exam questions. Dates and times of the four tests are shown on the Tentative Schedule.

Quizzes

There will be in-class, pop-up questions that will account for 25% of the total course grade. The instructor and students will use the iClicker polling system for the class participation. Quizzes are designed to evaluate and reinforce specific topics of the course and are intended to reward class attendance and participation. A number of iClicker questions will be distributed during each lecture time and the students will need to respond to all questions in order to receive full credit. If a student responds wrongly to all the questions in a session, he or she would still earn 30% credit of that specific session for participating and polling. To receive this 30% credit, the student will need to answer to all the questions in a session regardless if they are right or wrong.

Online Discussions

Three (3) times during the semester, students will be required to participate in the online discussion board. A minimum of **two (2) posts** are required, though students are encouraged to post as many times as they like. **One of your posts** must be an answer to the main question issued by your instructor, **and the other**, must be a response to another student's post. Your posts must be a minimum of 150 words length each. Any extra posts above the minimum 2 are, of course, not subject to the word count minimum. The instructor and TA will participate in the discussion board and will make comments throughout the semester. To receive full credit for the discussions, the posts must meet the minimum word

requirements and must be relevant to the academic discussion topic. The online discussion must follow the netiquette policies discussed below.

Copyright Assessment for Course Materials

All materials used in this course are protected by copyright law. The course materials are only for the use of students currently enrolled in this course and only for the purpose of this course. They may not be further disseminated.

Course Resources: Where you can go for assistance

- UTEP Library: Access a wide range of resources including online, full-text access to thousands of journals and eBooks plus reference service and librarian assistance for enrolled students.
- University Writing Center (UWC): Submit papers here for assistance with writing style and formatting, ask a tutor for help and explore other writing resources.
- Math Tutoring Center (MaRCS): Ask a tutor for help and explore other available math resources.
- History Tutoring Center (HTC): Receive assistance with writing history papers, get help from a tutor and explore other history resources.
- RefWorks: A bibliographic citation tool; check out the RefWorks tutorial and Fact Sheet and Quick-Start Guide.

Individual Resources

- Military Student Success Center: Assists personnel in any branch of service to reach their educational goals.
- Center for Accommodations and Support Services: Assists students with ADA-related accommodations for coursework, housing, and internships.
- Counseling and Psychological Services: Provides a variety of counseling services including individual, couples, and group sessions as well as career and disability assessments.

Part 4: Course and University Policies

- Should you decide to drop this course for whatever reason, you must submit the relevant forms to the Office of the Registrar by the appropriate date. Failing to do so will result in an F grade for the course. If at the time you withdraw from the course you are scoring a failing grade, you will receive an F grade. If not, you will receive a W for withdrawn.
- It is the policy of the University to excuse absences of students that result from religious observances and to provide without penalty for the rescheduling of examinations and additional required classwork that may fall on religious holidays. Please contact me as soon as possible to make appropriate arrangements for classroom or rescheduling of exams.
- The University is committed to providing reasonable accommodations for all students with disabilities. If you have a disability that may prevent you from fully demonstrating your abilities, contact me as soon as possible so that accommodations can be made. Students must be registered with the UTEP Center for Accommodations and Support Services (CASS: <https://www.utep.edu/student-affairs/cass/>) prior to receiving

accommodations in this course. You are expected to be familiar with and abide by the UTEP Academic Misconduct Code. Information on this code is at <https://www.utep.edu/student-affairs/osccr/student-conduct/academic-integrity.html>.

- Anything that appears to be cheating, plagiarism, or other forms of academic misconduct will not be tolerated. Apparent misconduct will be dealt with by immediate referral of the circumstances through the regular university channels.
- The instructor has the right to institute new policies during the semester to ensure safety and positive learning environment for all students.

Part 5: Diversity, Equity and Inclusion Statement

We must treat every individual with respect. We are diverse in many ways, and this diversity is fundamental to building and maintaining an equitable and inclusive campus community. Diversity can refer to multiple ways that we identify ourselves, including but not limited to race, color, national origin, language, sex, disability, age, sexual orientation, gender identity, religion, creed, ancestry, belief, veteran status, or genetic information. Each of these diverse identities, along with many others not mentioned here, shape the perspectives our students, faculty, and staff bring to our campus. We, at UTEP, will work to promote diversity, equity and inclusion not only because diversity fuels excellence and innovation, but because we want to pursue justice. We acknowledge our imperfections while we also fully commit to the work, inside and outside of our classrooms, of building and sustaining a campus community that increasingly embraces these core values.

Each of us is responsible for creating a safer, more inclusive environment. Unfortunately, incidents of bias or discrimination do occur, whether intentional or unintentional. They contribute to creating an unwelcoming environment for individuals and groups at the university. Therefore, the university encourages anyone who experiences or observes unfair or hostile treatment on the basis of identity to speak out for justice and support, within the moment of the incident or after the incident has passed. Anyone can share these experiences using the resources listed in UTEP's diversity and inclusion initiative <https://www.utep.edu/provost/diversity-equity-and-inclusion/index.html>