

University of Texas at El Paso
College of Science
Department of Earth Environmental and Resource Sciences

PHYSICAL GEOGRAPHY - GEOG1306-1 (3 credit hours)

Syllabus

Part 1: Course Information

Instructor Information

Instructor: Dr. Laura V. Alvarez

Learning Management Site: UTEP blackboard

Classroom: Undergraduate Learning Center 346

Meetings: MW 10:30 AM – 11:50 AM

E-mail Professor: alvarez@utep.edu

E-mail TA: thossain@miners.utep.edu

Professor's Office Hours (Zoom): T F 11:00 AM – 12:00 PM or by appointment

Meeting ID: 889 9205 2803, Passcode: geography1, Dial: +1 346 248 7799

Teaching Assistant: Mr. Tanzir Hossain, ESE PhD Student

TA's Office Hours (Zoom): M W 3:00 PM – 4:00 PM

<https://utep-edu.zoom.us/j/6825067954>

Meeting ID: 682 506 7954, Passcode: TAhours1, Dial +1 346 248 7799

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.

Textbook & Course Materials

- Geosystems: An Introduction to Physical Geography (10th Edition). Robert Christopherson and Ginger Birkeland. Prentice Hall.
- You will find my presentations, 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.

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, video, 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.

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 read 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.

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 recording, lecture notes, and submission areas are in one area for a given week.

iClicker REEF Polling

- This class will be using REEF Polling by i>clicker this term. REEF Polling helps me to understand what you know, gives everyone a chance to participate in class, and allows you to review the material after class. I will also use REEF Polling to keep track of attendance and participation; please refer to the attendance policy on page #6 of this syllabus. Participation with REEF Polling will account for 25% of your final grade. Please refer to the in REEF participation item in the evaluation section.
- You will need to create a REEF Polling account to vote in class using your laptop, smart phone, or tablet connected to the university’s Wi-Fi. Go to <http://reef-education.com> or download the REEF Polling app for iPhone/iPad to sign up for a REEF Polling account. You should use your university email address and your UTEP Student ID field. Do not create and use more than one REEF Polling account as you will only receive credit from a single account.
- You will need to purchase a subscription to use REEF Polling. You can use a credit card to purchase online, in-app purchase. Creating a REEF Polling account automatically starts a free 14-day trial subscription.
- I consider submitting votes 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 REEF Polling point and may face additional disciplinary action.

Course Structure

This course is structured in 80 minute lectures. The required textbook provides a solid background for the course. However, there may be material in the lectures that is not in the text. The subject of physical geography cannot be fully appreciated or grasped without the synthesis of the many topics we learned 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.

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. An optional fourth online discussion will be posted on Blackboard as extra credit (5%).

Etiquette Network Etiquette (Netiquette)

- Respect and courtesy must be provided to classmates, TA and the instructor at all times. No harassment or inappropriate postings will be tolerated (apply for in-person lectures, blackboard discussions and zoom meetings).
- When reacting to someone else's message, address the ideas, not the person.
- 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.
- As we know, sometimes communication online can be challenging. It's possible to miscommunicate what we mean or to misunderstand what our classmates mean given the lack of body language and immediate feedback. Therefore, please keep this 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.
- Office hours will be held through synchronous zoom meetings during the established office hours.

Part 2: Tentative Schedule (subject to slight changes)

Wk. #	Lec. No	Date	Topic	Book Ch.	Blackboard Discussion	Lab.* (Optional)
1	1	23 rd Aug (M)	Preliminaries and introduction to the course. ESSENTIALS OF GEOGRAPHY: The science of geography. Earth system concepts.	1		0.Intro
	2	25 th Aug (W)	ESSENTIALS OF GEOGRAPHY: Location and time on Earth. Maps and cartography. Modern tools and techniques for geosciences.	1		
2	3	30 th Aug (M)	SOLAR ENERGY TO EARTH AND THE SEASONS: The solar system. Sun and Earth. The solar energy.	2		1. Orientation, scale, maps
	4	1 st Sep (W)	SOLAR ENERGY TO EARTH AND THE SEASONS: Earth seasons and the annual cycle of energy	2		
3		6 th Sep (M)	Labor Day Holiday – University Closed			
	5	8 th Sep (W)	EARTH'S MODERN ATMOSPHERE: Atmospheric layers. Atmospheric composition, temperature and function. Pollutants in the atmosphere.	3		
4	6	13 rd Sep (M)	ATMOSPHERIC ENERGY: Radiation, types of heat transfer, energy pathways, albedo, energy balance at the Earth's surface	4		2. Location and seasons
	7	15 th Sep (W)	SURFACE ENERGY BALANCES: greenhouse effect, urban heat island effect. Temperature concepts and measurements. Principal temperature controls. Global Temperatures.	4		
5	8	20 th Sep (M)	EXAM 1: Lectures 1 through 7	1-4		3. Global temperatures and precipitation
	9	22 nd Sep (W)	ATMOSPHERIC AND OCEANIC CIRCULATIONS: Wind essentials. Driving forces within the atmosphere. Atmospheric patterns of motion. Oceanic currents. Natural oscillations in global circulation.	5		
6	10	27 th Sep (M)	WATER AND ATMOSPHERIC MOISTURE: Water's unique properties. Humidity.	6		4. Atmos. Circulat.
	11	29 th Sep (W)	WATER AND ATMOSPHERIC MOISTURE: Atmospheric stability. Phase changes. Clouds and fog.	6		
7	12	4 th Oct (M)	WEATHER: Air masses. Atmospheric lifting mechanisms. Cold and warm fronts. Mid latitude cyclonic systems.	7	1st Due	5. Moisture & atmos stability
	13	6 th Oct (W)	WEATHER: Violent weather. Thunderstorms, tornadoes, tropical cyclones.	7		
8	14	11 th Oct (M)	EXAM 2: Lectures 9 through 13	5-7		No lab
	15	13 Oct (W)	WATER RESOURCES: Water on earth. The hydrologic cycle. Precipitation, evapotranspiration, soil moisture. Water budget and resource analysis.	8		

Wk. #	Lec. No	Date	Topic	Book Ch.	Blackboard Discussion	Lab.* (Optional)
9	16	18 th Oct (M)	WATER RESOURCES: Surface and groundwater resources.	8		6. Air masses and weather
	17	20 th Oct (W)	EARTH'S CLIMATE AND ITS VARIABILITY: Review of Earth's climate system, classifying Earth's climates. Fundamentals of climate change.	10		
10	18	25 th Oct (M)	THE DYNAMIC PLANET: The pace of change. Earth's structure and internal energy. Buoyancy and isostasy.	11		7. Water budget
	19	27 th Oct (W)	THE DYNAMIC PLANET: Earth materials and the rock cycle. Plate tectonics. The geologic cycle.	11		
11	20	1 st Nov (M)	TECTONICS, EARTHQUAKES AND VOLCANISM: Major topographic regions of the world. Earth's hypsometry. Crustal formation and deformation. Orogenesis. Earthquakes. Volcanoes.	12		8. Earth interior and the rock cycle
		3 rd Nov (W)	Review Exam 3		2 nd Due	
12		8 th Nov (M)	EXAM 3: Lectures 15 through 20	8-12		9. Plate tectonics
	21	10 th Nov (W)	WEATHERING, KARST LANDSCAPES, AND MASS MOVEMENT: The landscape system and the dynamic equilibrium approach. Weathering factors and processes. Karst topography.	13		
13	22	15 th Nov (M)	RIVER SYSTEMS: Drainage basins, rivers and drainage patterns. Basic fluvial concepts. Discharge.	14		10. Weathering and Mass Movement
	23	17 th Nov (W)	RIVER SYSTEMS: Urbanization and hydrologic response, fluvial transport, channel patterns, depositional landforms, floodplains, alluvial fans, river deltas.	14		
14	24	22 nd Nov (M)	EOLIAN PROCESSES: Wind erosion, transportation and depositional forms. Desert landscapes.	15		11. Rivers
		24 th Nov (W)	Thanksgiving Break: No class			
15	25	29 th Nov (M)	GLACIAL AND PERIGLACIAL LANDSCAPES: The basis of glaciers. Types of glaciers. Glacial processes. Glacial landforms.	17		12. Deserts
		1 st Dec (W)	Review Exam 4		3 rd and 4 th Due	
16		3 rd Dec (M)	Dead day			
		10 th Dec	FINAL EXAM: Lectures 21 through 25 Friday, December 10th of 2021 from 10:00 AM to 12:45 PM	21-25		

Part 3: Grading Policy

Graded Course Activities

Percent	Description
60	4 Exams (15% each)
25	Reef Polling
15	3 Blackboard Discussion (5% each)
100	Total Points Possible
Extra Credit	1 Blackboard Discussion (5%)

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

Exams

There will be four exams that are not cumulative. The lowest exam grade will be dropped at the end of the course and only the highest 3 exam grades will count for the total 60%. This is the same as replacing the lowest exam grade for the average of the other three exam grades. The last exam will take place on Tuesday Dec 10th 10:00-12:45 PM

Technology Requirements

- Ensure your UTEP e-mail account is working and that you have access to the Web and a stable web browser. Google Chrome and Mozilla Firefox are the best browsers for Blackboard; other browsers may cause complications. When having technical difficulties, update your browser, clear your cache, or try switching to another browser.
- You will need to have access to a computer/laptop, a webcam, and a microphone for the office hours. Check that your computer hardware and software are up-to-date and able to access all parts of the
- **IMPORTANT:** If you encounter technical difficulties beyond your scope of troubleshooting, please contact the UTEP Help Desk as they are trained specifically in assisting with technological needs of students. Please do not contact me for this type of assistance. The Help Desk is much better equipped than I am to assist you!

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 provides a variety of student services and support: Technology Resources

- Help Desk: Students experiencing technological challenges (email, Blackboard, software, etc.) can submit a ticket to the UTEP Helpdesk for assistance. Contact the Helpdesk via phone, email, chat, website, or in person if on campus.

Academic Resources Relevant to this Course

- 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.

COVID-19 Precaution Statement

Please stay home if you have been diagnosed with COVID-19 or are experiencing COVID-19 symptoms. If you are feeling unwell, please let me know as soon as possible, so that we can work on appropriate accommodations. If you have tested positive for COVID-19, you are encouraged to report your results to covidaction@utep.edu, so that the Dean of Students Office can provide you with support and help with communication with your professors. The Student Health Center is equipped to provide COVID-19 testing.

The Center for Disease Control and Prevention recommends that people in areas of substantial or high COVID-19 transmission wear face masks when indoors in groups of people. The best way that Miners can take care of Miners is to get the vaccine. If you still need the vaccine, it is widely available in the El Paso area, and will be available at no charge on campus during the first week of classes. For more information about the current rates, testing, and vaccinations, please visit epstrong.org.

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>