

**GEOGRAPHY 1306: Physical Geography**  
**CRN: 21803**  
**The University of Texas at El Paso**  
**Department of Earth, Environmental, and Resource Sciences**  
**Spring Semester 2023**

**Instructor:**

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*Note: Please **only** use the internal email system to Blackboard to communicate with the instructors (see below)*

**Course Description, Objectives, and Expected Learning Outcomes:**

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.

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.

**Grading:**

4 exams (15% each, 60% total); quizzes (25% total); 3 discussions (5% each; 15% total). Some extra credit points may be made available.

Grades will be computed and assigned based on the above percentage breakdown applied to the total number of points computed at the end of the semester. Each graded item will have an assigned point value and an associated rubric that will be used for evaluating it and assigning points.

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

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<i>A</i>	<i>89.5 to 100</i>
<i>B</i>	<i>79.5 to 89.4</i>
<i>C</i>	<i>69.5 to 79.4</i>
<i>D</i>	<i>59.5 to 69.4</i>
<i>F</i>	<i>0 to 59.4</i>

**Successful completion, submission, and satisfactory performance on all graded course requirements, and acceptable attendance, is the minimum to pass the class (i.e. a “D-”).**

***Tests***

There will be four true-false and multiple-choice exams worth 15% each. The exams 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 in the Course Outline and Schedule.

***Quizzes***

There will be multiple quizzes that will be used to gauge your progress and reward class attendance and participation. In total, the quizzes will account for 25% of your course grade. Some quizzes may be on paper in class. Some may be on Blackboard. **Some may use the iClicker polling system in class.** To receive full credit for a quiz, all questions on that quiz must be answered correctly. If the quiz is completed and all questions are incorrect, you will still earn 30% credit for that quiz.

***Online Discussions***

Three (3) times during the semester, you 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, and the other must be a response to another student’s post. Your two required posts must each be a minimum of 150 words. To receive full credit, your two posts must meet the minimum word requirements and be relevant to the discussion topic.

**Class Meetings:**

Lecture/Lab: TTh 1:30-2:50 pm in Geology Room 123.

This course will be face-to-face following a “flipped classroom” format enabled by Blackboard, and I will make an effort to record class sessions. We will proceed on a weekly schedule (i.e. **not** at your own pace).

**This is an IN-PERSON class, it is NOT a remote-only class. Attendance at ALL class sessions is expected of all students, but do not attend class in person if you feel ill or have been exposed to a sick person (see Attendance and COVID-19 Policies below).**

**Office Hours:**

Dr. Hurtado: TTh 3-4pm (or by appointment) face-to-face in Geology 301a or online by request/appointment.

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**You are strongly encouraged to participate in office hours so that you can stay engaged with the class and get help with the lab assignments and/or any material presented in the lectures.**

**Communication:**

<b>Method</b>	<b>Response Time</b>	<b>Notes</b>
Blackboard Announcements	--	Be sure to check Blackboard regularly for updates, deadlines, and other important messages. Blackboard is available on the web and also as a mobile app.
Blackboard Discussion Forum	Within <24 hours for replies to posts	Posts are visible to the instructors and the whole class. There are dedicated forums for technical help, general help, fun posts, as well as specific assignments.
Microsoft Teams  Zoom	New appointments available within 24-48 hours	Schedule new appointments via Blackboard email. Scheduled office hours are in a group setting. Private conversations are possible on request/by appointment.
Email ( <b>do not use UTEP webmail, etc; use Blackboard internal email <u>only</u> please</b> )	Within <6 hours	For direct, confidential contact with instructors, this is the preferred method. Please always include the course name as the subject line, state your message clearly, etc.
Cell Phone (see numbers above)	Within <3 hours	Monday to Friday: 9am-5pm Weekend: emergencies only. Please leave voice mail. No texts, please.
Office Phone (see numbers above)	Within <24 hours	Instructors may work remotely on some days. Please leave voice mail.

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**Class Online Materials:**

Check the Blackboard portal for this course often for updates and announcements. The online materials are the key part of the class and Blackboard will be the main venue all class business. The course is designed around weekly modules, each of which includes learning content to include “lecture” notes, videos, PDF readings, weblinks, assignments (labs, homeworks, discussions), and quizzes. These modules will be released to Blackboard weekly.

*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.*

**Text:**

The required textbook is available at the UTEP Bookstore or from your favorite online book retailers:

Christopherson, R.W. and Birkeland, G.H., 2017, *Geosystems: An Introduction to Physical Geography* (10<sup>th</sup> Edition): Pearson, New York, 605 pp., ISBN-13: 9780134857213.

<https://www.pearson.com/en-us/subject-catalog/p/geosystems-an-introduction-to-physical-geography/P200000007011/9780134857213>

**Required Information Technology Tools and Resources:**

To fully engage in and complete the work for this course, everyone will individually need to have daily access to a reliable, preferably broadband, internet connection, ideally on a laptop or a desktop computer equipped with a camera and microphone and a selection of software (see below). Check that your computer hardware and software are up-to-date and are able to access all parts of the course.

**All students will be expected to have access to the following information technology, software, tools, and resources:**

1. *Microsoft Office* (Word, Excel, and PowerPoint) or equivalent productivity software (e.g. Google Docs, etc.). This may be used to do assignments.
2. *Microsoft Paint* (or your favorite other image viewing/editing software, e.g. GIMP, Adobe Photoshop, Inkscape, Adobe Illustrator, etc.). This may be used to make/view illustrations.
3. *Adobe Reader* (or your favorite other PDF viewer). This will be used to view PDF documents posted to Blackboard.
4. *Windows Media Player, QuickTime Player, VLC or equivalent video player.* This will be used to view video files.
5. *Access to your UTEP email account.* We may need to communicate via external email throughout the semester. **Note, however, that the primary means of email communication will be through the Blackboard internal email function.**

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6. *Access to Blackboard.* Please be sure to check that you have access to the Blackboard site for this course by the first day. We will use Blackboard as our primary means of communication (including email) and for all course business. In particular, we will make use of the Discussion Board. Please check that you can use all Blackboard functions, as well as the Blackboard email system. **Mozilla FireFox and Google Chrome are the best-supported browsers for Blackboard.**
7. *Access to the UTEP VPN* (see this link for more information [https://www.utep.edu/technologysupport/ServiceCatalog/NET\\_VPNGlobalProtect.html](https://www.utep.edu/technologysupport/ServiceCatalog/NET_VPNGlobalProtect.html)). Connecting to the VPN will be necessary to access UTEP library resources and for running UTEP-licensed software (but not for Blackboard) when you are off-campus.
8. *An iClicker Polling account.* We will use this for quizzes, attendance, and participation. You will use this in class from your laptop, smart phone, or tablet connected to the UTEP WiFi network. Go <https://www.iclicker.com> or download the iClicker Polling app to sign up for an account. You should use your UTEP email address and your UTEP student ID when creating your account. Do not create and use more than one account. A 6-month subscription to this service is \$15.99 (with a 14-day free trial).
9. Ability to install new software and/or access websites not specified here. As the semester progresses, you may be asked to install and use new software or other assets. Please let the instructors know if you have difficulty.

You will also be expected to stay continually up to date with all information posted on Blackboard, which will include the syllabus, course calendar/schedule, grades, announcements, email, discussion boards, video conferencing, course notes, readings, supplemental material, and assignments. All communications, including email, for the course will be exclusively via Blackboard. Also, all course materials will be disseminated electronically, and all work will be assigned and handed-in electronically via Blackboard only. **Also, all course materials will be disseminated electronically, and most work will be assigned and handed-in electronically via Blackboard. Follow all instructions regarding turning in materials electronically or hardcopy.**

That said, always keep off-line backups of any work you produce in the event of a problem with Blackboard. This way, you will have evidence that you completed the work and will not lose credit. Always submit your work with plenty of time to spare in the event that you have a technical issue with the Blackboard, the network, and/or your computer (see below).

**If at any time you have problems accessing Blackboard, the internet, or any of the resources described here, or have any other technical difficulties, please**

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**reach out to the instructors ASAP. For troubleshooting, note that the Help Desk (<https://www.utep.edu/technologysupport/>) is trained specifically in assisting with technological needs of students.**

**Class Recording Policies:**

The use of recordings will enable you to have access to class lectures, group discussions, etc. in the event you miss any synchronous or in-person class meetings due to illness or other extenuating circumstances. Our use of such technology is governed by the Federal Educational 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. Your instructor will not share the recordings of your class activities outside of course participants, which include your fellow students, teaching assistants, or graduate assistants, and any guest faculty or community-based learning partners with whom we may engage during a class session. You may not share recordings outside of this course. Doing so may result in disciplinary action.

**Attendance and Engagement Policies:**

I expect everyone in the class to regularly attend all lecture and lab meetings, and attendance will be taken. **However, do not attend class in person if you feel ill or have been exposed to a sick person (see COVID-19 Policies below).** If you miss a class meeting with a valid excuse, accommodations will be made. Because of the fast, week-to-week pace of the course, it will be particularly important that every student maintain engagement. The onus will be on each one of you to make your own experience in the class a success. That means you need to **keep on schedule and on task from week-to-week**, including:

- attending all scheduled class meetings (whether they are virtual or face-to-face)
- staying in the loop on and being proactive about communication;
- participating in all discussions and other interactive activities;
- being diligent in reading/viewing all materials posted to Blackboard and making progress on assignments from week-to-week, e.g., for every hour of "class time" you should be devoting 2 hours to preparatory/study time and/or working on assignments. You are responsible for any and all material posted to Blackboard.
- not hesitating to ask questions about material posted to Blackboard, e.g. by emailing the instructors directly, posting questions to Blackboard, attending office hours (virtual or face-to-face), etc.
- meeting deadlines and keeping your commitment to complete all work (major assignments and other graded work) and completing it on time.

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Each one of the above items will contribute to how you will be evaluated for class participation/attendance. Your success in each of them will also contribute to high scores on your assignments and exams.

**Late and Missing Work Policies:**

Generally, the instructors will post new material (including assignments, readings, lectures, etc.) to Blackboard on Mondays by midnight (11:59 pm MT). Generally, you will have at least one week to do work (homework, labs, quizzes, discussion board posts, etc.) which will due, typically on Blackboard, on Mondays no later than midnight (11:59 pm MT). **Due dates and mode of turning in (electronic vs. hardcopy) may change/vary, though, so be sure to read all instructions carefully.**

Unless other arrangements are made in advance, or you have a valid excuse (see below), **late work may lose up to 50% of its value for each day it is late, and work may not be accepted more than one week late.** In general, make-up exams and assignments may not be available unless in the case of a documented emergency, etc.. Note that any make-up work may be in a different format than the original work, may require more intensive preparation, and may be graded with penalty points. If you miss an assignment and the reason is not considered excusable, you may receive a zero. It is therefore important to reach out to the instructor, in advance if at all possible, and explain with proper documentation why you missed a given course requirement. Once a deadline has been established for make-up work, it is possible that no further extensions or exceptions will be granted. **Bottom line: stay on time with assigned work and don't fall behind, but, if you do, TALK WITH THE INSTRUCTORS – do not just give up on work you are behind on.**

According to UTEP Curriculum and Classroom Policies: *“When, in the judgment of the instructor, a student has been absent to such a degree as to impair his or her status relative to credit for the course, the instructor may drop the student from the class with a grade of “W” before the course drop deadline and with a grade of “F” after the course drop deadline.”* See the UTEP Undergraduate Catalog for a list of excuse absences which include, but are not limited to, illness, absence with the instructor's prior approval, official University business, etc., but all require documentation. **Because you may be dropped from the course if you have excessive missing work or are not sufficiently engaged in the course, please contact Dr. Hurtado about any concerns, schedule conflicts, missing work, etc. ASAP and, whenever possible, in advance. Note that I will not entertain entreaties to grant extensions or an incomplete grade for the course at the last minute!**

**Course Drop and Incomplete Grade Policies:**

To drop this class, please contact the Registrar's Office (<https://www.utep.edu/student-affairs/registrar/students/registration.html>) to initiate the drop process. **If you cannot complete this course for whatever**

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**reason, please contact me. If you do not, you are at risk of receiving an “F” for the course.**

**Note that I will not entertain entreaties to grant extensions or an incomplete grade for the course at the last minute!**

Incomplete grades may be requested/assigned only in exceptional circumstances after you have completed at least half of the course requirements. Talk to me immediately if you believe an incomplete is warranted. If granted, we will establish a contract of work to be completed with deadlines. If the deadlines are missed, the incomplete grade will automatically turn into an F.

### **Academic Dishonesty Policies:**

Academic dishonesty is prohibited and is considered a violation of the UTEP Handbook of Operating Procedures (HOOP). It includes, but is not limited to, cheating, plagiarism, and collusion. Cheating may involve copying from or providing information to another student, possessing unauthorized materials during a test, or falsifying research data on laboratory reports. Plagiarism occurs when someone intentionally or knowingly represents the words or ideas of another as ones' own. Collusion involves collaborating with another person to commit any academically dishonest act. **Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. The University guidelines for academic dishonesty are very specific and will be strictly followed.** All suspected violations of academic integrity must be reported to the Office of Student Conduct and Conflict Resolution (<https://www.utep.edu/student-affairs/osccr/>) for possible disciplinary action. Refer to the UTEP HOOP (<https://www.utep.edu/hoop/section-2/student-conduct-and-discipline.html>), and the guidelines here (see <https://www.utep.edu/student-affairs/osccr/student-conduct/academic-integrity.html>) for more information, and contact the Dean of Students or Dr. Hurtado if you have any concerns.

*Some of your course work and assessments may submitted to SafeAssign, a plagiarism detecting software. SafeAssign is used review assignment submissions for originality and will help you learn how to properly attribute sources rather than paraphrase.*

Note that this course may require you to work in groups at times and individually at other times. **Although reasonable collaboration will occur from time-to-time (on assignments, not exams), all work you turn for a grade in is expected to be your own!** You MUST learn to trust your own work and NOT rely on that of others. This is your opportunity to learn the material and to hone your skills, so do not cheat yourself by copying the work of others. Show all your work and be prepared to explain it! Copying of other's work WILL be noticed and WILL NOT be tolerated.

### **Course Citizenship Policies:**

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This class will require interactions with your instructors and fellow students in both face-to-face and online, asynchronous environments. Think about your colleagues and your role in this group environment and in the current global circumstances. Collegiality, teamwork, and self-organization will make this class a great experience. Please consider the following guidelines as you interact with others online:

- Always consider your audience. Remember that other members of the class and the instructors will be reading any online postings and that they will be present at face-to-face meetings.
- Respect and courtesy must be provided to classmates and to the instructors 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, so all postings to it should be considered private and confidential. Whatever is posted in these online spaces is intended for classmates and the instructors only. Please do not copy documents and paste them to a publicly-accessible website, blog, or other space. If students wish to do so, they have the ethical obligation to first request the permission of the writer(s).

The instructors will be exercising other important leadership skills with you throughout the course, emphasizing good team behavior and dynamics.

**COVID-19 Policies:**

*Please stay home if you have been diagnosed with COVID-19, are experiencing COVID-19 symptoms, or have been exposed to someone with COVID-19 and have not yet been tested. If you are feeling unwell, please let the instructor 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](mailto:covidaction@utep.edu), so that the Dean of Students Office can provide you with support and help with communication with your professors. **COVID-19 testing is widely available in the community.***

Note that the US 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** and practice proper hygiene (hand washing, sanitizing shared materials, wearing masks when appropriate, etc.). **If you need the vaccine, it is widely available in the El Paso area.** For more information about the current rates, testing, and vaccinations, please visit <http://epstrong.org>.

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Note that if COVID-19 conditions deteriorate in the City of El Paso, course and lab activities could be transitioned to remote delivery. Please follow the updates and guidance from UTEP (<https://www.utep.edu/resuming-campus-operations>) and from our Local, State, and Federal government in that regard. If you have any difficulties or concerns related to the circumstances, please reach out to the instructor and/or take advantage of the student support resources UTEP provides.

**Accommodations Policies:**

UTEP is committed to providing reasonable accommodations and auxiliary services to students, staff, faculty, job applicants, applicants for admissions, and other beneficiaries of University programs, services and activities with documented disabilities in order to provide them with equal opportunities to participate in programs, services, and activities in compliance with sections 503 and 504 of the Rehabilitation Act of 1973, as amended, and the Americans with Disabilities Act (ADA) of 1990 and the Americans with Disabilities Act Amendments Act (ADAAA) of 2008. Reasonable accommodations will be made unless it is determined that doing so would cause undue hardship on the University. Students requesting an accommodation based on a disability must register with the UTEP Center for Accommodations and Support Services (CASS) (<https://www.utep.edu/student-affairs/cass/ada-policies/accommodations-for-individuals-with-disabilities%20.html>) Note that the student is responsible for following up with the instructors about any accommodation letters and instructions.

**Military Service:**

If you are a military student with the potential of being called to military service and/or training during the course of the semester, you are encouraged to contact the instructors as soon as possible.

**Student Resources:**

UTEP provides a variety of student services and support, including:

- 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.
- RefWorks: A bibliographic citation tool; check out the RefWorks tutorial and Fact Sheet and Quick-Start Guide.
- 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.

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- 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.
- Military Student Success Center: UTEP welcomes military-affiliated students to its degree programs, and the Military Student Success Center and its dedicated staff (many of whom are veterans and students themselves) are here to help personnel in any branch of service to reach their educational goals.
- Center for Accommodations and Support Services (CASS): 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.

**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>.

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**Course Outline and Schedule:**

Note that **the details of our schedule are subject to change** as the semester progresses. Please be flexible, and let Dr. Hurtado know if you have any questions or concerns. A preliminary, detailed schedule is attached.

*Schedule Notes:*

- 1. Dr. Hurtado may be called out of town for field work or other business on certain other days to be determined. This, however, DOES NOT imply that class will be cancelled on those days! Unless you are otherwise notified, always assume class will meet (perhaps online), regardless of whether Dr. Hurtado is out of town or not!*
- 2. All new materials, including assignments, will be posted to Blackboard on Mondays. Note that the course is NOT self-paced. We will follow a tight, weekly schedule.*

Wk #	Date	Lec. #	Topic	Book Ch.	Blackboard Discussion	Lab GEOG1106 (optional)
1	17 Jan (T)	1	Introduction to the course.	1		0.Intro Lab
	19 Jan (R)	2	<b>ESSENTIALS OF GEOGRAPHY:</b> The science of geography. Earth system concepts. Location and time on Earth. Maps and cartography. Modern tools and techniques for geosciences.	1		
2	24 Jan (T)	3	<b>SOLAR ENERGY TO EARTH AND THE SEASONS:</b> The solar system. Sun and Earth. The solar energy.	2		1. Orientation, scale, maps
	26 Jan (R)	4	<b>SOLAR ENERGY TO EARTH AND THE SEASONS:</b> Earth seasons and the annual cycle of energy	2		
3	31 Jan (T)	5	<b>EARTH'S MODERN ATMOSPHERE:</b> Atmospheric layers. Atmospheric composition, temperature and function. Pollutants in the atmosphere.	3		2. Location and seasons
	2 Feb (R)	6	<b>ATMOSPHERIC ENERGY:</b> Radiation, types of heat transfer, energy pathways, albedo.	4		
4	7 Feb (T)	7	<b>SURFACE ENERGY BALANCE:</b> Energy balance at the Earth's surface, greenhouse effect, urban heat island effect.	4		3. Global temperatures and precipitation
	9 Feb (R)	8	<b>GLOBAL TEMPERATURES:</b> Temperature concepts and measurements. Principal temperature controls. Earth's temperature patterns and human response to trends.	4		
5	14 Feb (T)	9	<b>TEST 1: Weeks 1 through 4</b>	1-4	1 <sup>st</sup> Due	No Lab
	16 Feb (R)	10	<b>ATMOSPHERIC AND OCEANIC CIRCULATIONS:</b> Wind essentials. Driving forces within the atmosphere. Atmospheric patterns of motion. Oceanic currents. Natural oscillations in global circulation.	5		
6	21 Feb (T)	11	<b>WATER AND ATMOSPHERIC MOISTURE:</b> Water's unique properties. Humidity.	6		4. Atmos. Circulat.
	23 Feb (R)	12	<b>WATER AND ATMOSPHERIC MOISTURE:</b> Atmospheric stability. Phase changes. Clouds and fog.	6		
7	28 Feb (T)	13	<b>WEATHER:</b> Air masses. Atmospheric lifting mechanisms. Cold and warm fronts. Mid latitude cyclonic systems.	7		5. Moisture & atmos stability
	2 Mar (R)	14	<b>WEATHER:</b> Violent weather. Thunderstorms, tornadoes, tropical cyclones.	7		
8	7 Mar (T)	15	<b>TEST 2: Weeks 5 through 7</b>	5-7	2 <sup>nd</sup> Due	6. Air masses and weather
	9 Mar (R)	16	<b>WATER RESOURCES:</b> Water on earth. The hydrologic cycle. Precipitation, evapotranspiration, soil moisture. Water budget and resource analysis.	8		
9	Mar. 13 <sup>th</sup> - 17 <sup>th</sup>		<b>Spring Break</b>			
10	21 Mar (T)	17	<b>WATER RESOURCES:</b> Surface and groundwater resources.	8		

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Wk #	Date	Lec. #	Topic	Book Ch.	Blackboard Discussion	Lab GEOG1106 (optional)
	23 Mar (R)	18	<b>EARTH'S CLIMATE AND ITS VARIABILITY:</b> Review of Earth's climate system. Fundamentals of climate change, evidence and projections.	10		7. Water budget
11	28 Mar (T)	19	<b>THE DYNAMIC PLANET:</b> The pace of change. Earth's structure and internal energy. Buoyancy and isostasy.	11		8. Earth interior and the rock cycle
	30 Mar (R)	20	<b>THE DYNAMIC PLANET:</b> Earth materials and the rock cycle. Plate tectonics. The geologic cycle.	11		
12	4 Apr (T)	21	<b>TECTONICS, EARTHQUAKES AND VOLCANISM:</b> Major topographic regions of the world. Earth's hypsometry. Crustal formation and deformation. Orogenesis. Earthquakes. Volcanoes.	12		9. Plate tectonics, earthquakes and volcanoes
	6 Apr (R)	22	<b>WEATHERING, KARST LANDSCAPES, AND MASS MOVEMENT:</b> The landscape system and the dynamic equilibrium approach. Weathering factors and processes. Karst topography.	13		
13	11 Apr (T)	23	<b>TEST 3: Weeks 8 through 12</b>	8-12	3 <sup>rd</sup> Due	No Lab
	13 Apr (R)	24	<b>WEATHERING, KARST LANDSCAPES, AND MASS MOVEMENT:</b> Mass-movement processes and types.	13		
14	18 Apr (T)	25	<b>RIVER SYSTEMS:</b> Drainage basins, rivers and drainage patterns. Basic fluvial concepts. Discharge.	14		10. Mass movements and karst
	20 Apr (R)	26	<b>RIVER SYSTEMS:</b> Urbanization and hydrologic response, fluvial transport, channel patterns, depositional landforms, floodplains, alluvial fans, river deltas.	14		
15	25 Apr (T)	27	<b>EOLIAN PROCESSES:</b> Wind erosion, transportation and depositional forms. Desert landscapes.	15		11. Fluvial processes and landforms
	27 Apr (R)	28	<b>OCEANS AND COASTAL SYSTEMS:</b> 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	2 May (T)	29	<b>GLACIAL AND PERIGLACIAL LANDSCAPES:</b> The basis of glaciers. Types of glaciers. Glacial processes. Glacial landforms.	17		12. Desert processes and landforms
	4 May (R)	30	<b>GLACIAL AND PERIGLACIAL LANDSCAPES:</b> Periglacial landscapes. Permafrost distribution. Arctic and Antarctic Regions.	17		
17	11 May (R)	31	<b>Test 4: Weeks 12 through 16</b>	13-17		No Lab

*\*Lab column only applies to students that are also taking GEOG1106 (Lab for Physical Geography).*

*Please consult your GEOL1106 Syllabus and your lab instructor (not Dr. Hurtado) for exact details on meeting times, room and topics for GEOG1106.*

*Your continued enrollment in this course implies your acceptance of the policies set by the instructor!*