

GEOGRAPHY 1000

Earth Environments and Global Change

GEOG 1000 - 001

3 credit hours

SPRING SEMESTER 2022 SYLLABUS

Class Meetings: 10:45 AM-12:05 PM Tuesday OR Thursday

- **Instructor:** Summer Rupper
- **Office telephone number:** 585-9167
- **Office location:** Gardner Commons (GC) 4736
- **E-mail:** summer.rupper@geog.utah.edu

Zoom Office Hours: Wednesdays 10-11 AM, Tuesdays 12:30-1:30 PM, or by appointment

Required Text: Available with Inclusive Access on CANVAS for \$37.65 unless you opt out by 1/29/21

Author: Robert W. Christopherson. **Title:** Geosystems: An Introduction to Physical Geography (9th Edition) [ISBN: 978-0321958259]

Course Description

GEOG 1000: Earth Environments and Global Change (3) Fulfills Physical/Life Science Exploration. *Earth Environments and Global Change* explores the four interconnected spheres of the Earth, the atmosphere, hydrosphere, lithosphere and biosphere. The course examines the theories, research methods and types of data that are fundamental to a responsible appreciation of the geographic and historical variation of Earth's environments. Case studies provide the opportunity for students to investigate 'hot' topics in Earth system science, including melting ice caps, the overkill hypothesis, ozone depletion, the origins of life, increasing greenhouse effects and others.

Introduction

This class is an introduction to the discipline of physical geography, and we will examine the four spheres of the Earth: the atmosphere, the lithosphere, the hydrosphere, and the biosphere, with special consideration of a key connection between these four spheres- climate. This course is a Science Foundation Course, so students will be introduced to basic scientific principles and scientific methods, and will learn to develop hypotheses and critically evaluate scientific findings. This course is comprised of lectures, in-class participation/quizzes, and case studies. Lectures will introduce students to key foundations in the area of Earth System Science, participation and quizzes will probe for deeper understanding, and the case studies will provide detailed investigations of key topics and allow real-world applications of scientific data to an understanding of natural processes. Case studies build from the lectures and are student-based exercises which have developed from multi-disciplinary research in the Mountain West Region.

Course Suggestions

This course uses a [CANVAS homepage](#) to provide pertinent course materials. Basic internet fluency is required to access online course resources. You will need internet access to view lecture slides, take quizzes, submit assignments, and complete midterm/final exams. No prerequisite is required for enrollment, but basic proficiency in the location of the world's continents, oceans, US 50 states, and reading latitude/longitude (on a map) is necessary. Much of this content is covered in the first two (2) chapters of our textbook or by referencing an atlas. Helpful information can also be accessed online.

For many of you, this class may be your first college-level science course, and studying for science may emphasize different skills than those with which you are most familiar. Many people feel that they should try to memorize everything; this is certainly one method of learning. But, should you find that total memorization is not working for you in this class, try the following. Geography is, for the most part, an observable discipline - it is with us and around us all the time. Because of this, you can often picture the various concepts. I believe that if you can draw or map the various concepts, you will automatically understand it too. If something is difficult to comprehend, remember, or convey, try

drawing it. Draw it, label the various parts, and annotate it - this provides a picture of the subject that should be in your mind even during "exam blackout"!

Course Etiquette: Any successful learning experience requires mutual respect on the part of the student and the instructor. Neither the instructor nor student should be subject to others' behavior that is rude, disruptive, intimidating, or demeaning.

Experience has shown that regular attendance is strongly correlated with student success in this course. Students attending class are expected to arrive on time, be prepared to pay attention when class starts, and remain attentive for the duration of the 80-minute class period. Active involvement in class- through questions, personal experiences, amplification of points being discussed, or introduction of news items relating to class concepts- is strongly encouraged and enhances the learning experience for yourself, other students, and the instructor. Students should also be prepared to work independently or with other students on case studies, and students not completing case studies should expect to do poorly in the course.

Class Structure

Readings: Our textbook examines many (but not all) of the topical material, concepts or issues that will be raised in our lecture. Therefore, it is important that all provided supplemental reading be completed prior to, or immediately following, lecture.

Lecture: Each lecture period will cover one (1) chapter from our course textbook (covered in the course outline and scheduled readings section below). It is also encouraged that students take notes while in-class. Your focused study and participation (in class) are important for your success in class! Lecture slides will be available on CANVAS. If you miss lecture, review the slides and get notes from a classmate asap so you do not fall behind.

Quizzes/Participation: Several quizzes and in-class assignments will be completed throughout the semester. These are designed to help you actively participate in class, think more deeply about concepts, and identify misconceptions or questions. There are no make-ups for most in-class assignments. However, only 75% of your best scores will count towards your final grade. Under extenuating circumstances (e.g., extended illness), I will work with you to ensure missed classes beyond your control do not hurt your grade.

Case studies: Case study assignments are designed to afford you, the student, an opportunity to apply one (or several) aspects or concepts covered by class materials to complete a virtual field activity. Environmental geographers are typically posed with a variety of "field-work" tasks requiring a diverse (and interdisciplinary) understanding of our Earth system. These assignments will encourage more abstract critical thinking using a "hands-on" approach to gain experience and familiarity. Completion of these assignments will not require travel abroad to Egypt or Australia nor seeking out NSF funding, but will allow you to stay safe at home away from any field-encountered demons, ancient aliens, tornados, or blizzards.

Exams: Three exams will be administered through the semester. Exams will focus on material covered as outlined in the reading and lecture timetable below. Format includes multiple-choice, matching, multiple answers, true/false, short-answer, and short-essay. Standard rules of examinations are set by the department and University policies. Make-up exams and quizzes are not routine in this course and may only be offered at the discretion of the instructor upon evidence of medical reasons or extreme extenuating circumstances. For the first two exams, you will retake the exams with a group of your peers. This is intended to increase your understanding of the material, improve test-taking skills, and reduce test anxiety. The exam "retakes" will be 10% of your final exam grade. If you are not in class to retake the exam with peers, your final exam grade will equal your independent exam grade. The final exam will be comprehensive.

Late Assignment Policy/Excused Coursework

Understandably, life happens. All homework assignments will be accepted up to 1 week late without penalty. 10% will be docked for each additional week the assignment is late. Student athletes, EMTs, military personnel etc. are expected to provide copies of their schedule well in advance of anticipated planned absences in which they are officially on active service. All students should afford the classroom and the instructor the same courtesies they would extend to their coach/employer/commander.

Extra Credit: NO EXTRA CREDIT is offered in this course, with the possible exception of bonus questions on exams.

Grading

Final grades are earned on the basis of the overall accumulated points. There will be unannounced quizzes and participation assignments (at least 10), homework assignments, two equally weighted exams, and one comprehensive final exam.

Participation and Quizzes	20%
Homework	20%
Two midterm & Final Exam	<u>60%</u>
Total	100%

A (4.0 points) 95% A- (3.7 points) 90%	Excellent performance, superior achievement
B+ (3.3 points) 85% B (3.0 points) 82% B- (2.7 points) 80%	Good performance, substantial achievement
C+ (2.3 points) 75% C (2.0 points) 72% C- (1.7 points) 70%	Standard performance and achievement
D+ (1.3 points) 65% D (1.0 points) 62% D- (0.7 points) 60%	Substandard performance, marginal achievement
E (0.0 points) below 60%	Unsatisfactory performance and achievement

If you ever have questions or problems relating to this course (or other classes for that matter!), please see me at your earliest convenience. **Most of these situations can be positively handled if discussed early!** **The instructor reserves the right to make additions, deletions, and modifications to the following syllabus and course requirements with notification to the students enrolled in the class.

TENTATIVE SEMESTER SCHEDULE

Day	Date	Discussion Topic	Readings
T	11-Jan	Course introduction	Syllabus
Th	13-Jan	Essentials of Geography	Chapter 1
T	18-Jan	Solar energy to Earth & Seasons	Chapter 2
Th	20-Jan	Earth's atmosphere	Chapter 3
T	25-Jan	Atmospheric energy & global temperatures	Chapter 4
Th	27-Jan	Atmospheric & oceanic circulation	Chapter 5
T	1-Feb	Water & atmospheric moisture	Chapter 6
Th	3-Feb	Catch up day	
T	8-Feb	Exam #1	
Th	10-Feb	Exam Retake	
T	15-Feb	Weather	Chapter 7
Th	17-Feb	Weather (continued)	Chapter 7
T	22-Feb	Water resources	Chapter 8

Th	24-Feb	Earth's climatic regions	Chapter 9
T	1-Mar	Climate change	Chapter 10
Th	3-Mar	Climate change	Chapter 10
T	8-Mar	Dynamic planet	Chapter 11
Th	10-Mar	Tectonics, earthquakes, & volcanism	Chapter 12
T	15-Mar	Wasatch Front earthquake hazards	Chapter 12
Th	17-Mar	Catch up day	
T	22-Mar	Exam #2	
Th	24-Mar	Exam Retake	
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T	29-Mar	Weathering, karst landscapes, & mass movement	Chapter 13
Th	31-Mar	River systems	Chapter 14
T	5-Apr	Eolian process & arid landscapes	Chapter 15
Th	7-Apr	Oceans & coastal processes	Chapter 16
T	12-Apr	Glacial landscapes & cryosphere	Chapter 17
Th	14-Apr	Arctic, Antarctica & climate change	Chapter 17
T	19-Apr	Geography of soils	Chapter 18
Th	21-Apr	Ecosystem essentials	Chapter 19
T	26-Apr	Terrestrial biomes	Chapter 20
FINAL EXAM: TBD			

****Any changes to the schedule will be posted on Canvas and announced in class.**

University of Utah "CoVid-19" Guidance

- (a) **Face coverings are strongly encouraged in all in-person classes for staff, students, AND faculty. I will have masks available if you forget yours.
- (b) Vaccinations are required.
- (c) Do not come to campus/class if you are sick or have any COVID symptoms.
- (d) If you test positive, please self-report to the university so we can keep track of exposures.

**Two students in this class have reached out because they are immune-compromised. They would like the same in-person experience as everyone else, but this would require willingness of everyone to mask. While I cannot mandate masks, please consider voluntarily wearing a mask so all of your peers can attend class as safely as possible.

All of these measures will hopefully keep our campus open and save for everyone!

UNIVERSITY NOTICES

Research Ranking of the University: The University of Utah is the only institution in the state classified in the highest research category (R1). At the University of Utah, you students will have access to state-of-the-art research facilities and be able to be part of the knowledge creation process. You will have the opportunity to do research of your own with faculty who are leading experts in their field, engaging in programs that match your research interests. Further, you will interact with and often take classes with graduate students that provide an advanced understanding of the knowledge in your field.

Emergency Preparedness Plan: Students taking this class must be familiar with the campus Emergency Preparedness Plan. Each building has its own evacuation plan.

Should there be a drill or an actual emergency that requires a building evacuation, please assemble at the appointed “EAP” (Emergency Assembly Point) and check in with the Prof or class instructor, who will take attendance. Please follow all instructions given. Do not leave the area until you are given permission to do so by your course instructor. Emergency protocols are online here: <http://emergencymanagement.utah.edu/eap> and we will post information online via CANVAS.



The two closest EAPs for us are located in the parking lots east and west of the building.

Safety & Wellness: Your safety is our top priority. In an emergency, dial 911 or seek a nearby emergency phone (throughout campus). Report any crimes or suspicious people to 801-585-COPS; this number will get you to a dispatch officer at the University of Utah Department of Public Safety (DPS; dps.utah.edu). If at any time, you would like to be escorted by a security officer to or from areas on campus, DPS will help — just give a call.

The University of Utah seeks to provide a safe and healthy experience for students, employees, and others who make use of campus facilities. In support of this goal, the University has established confidential resources and support services to assist students who may have been affected by harassment, abusive relationships, or sexual misconduct. A detailed listing of University Resources for campus safety can be found at <https://registrar.utah.edu/handbook/campussafety.php>

Your well-being is key to your personal safety. If you are in crisis, call 801-587-3000; help is close.

The university has additional excellent resources to promote emotional and physical wellness, including the Counseling Center (<https://counselingcenter.utah.edu>), the Wellness Center (<https://wellness.utah.edu>), and the Women’s Resource Center (<https://womenscenter.utah.edu>). Counselors and advocates in these centers can help guide you to other resources to address a range of issues, including substance abuse and addiction.

University of Utah Attendance Policy

The University expects regular attendance at all class meetings. **You are not automatically dropped from your classes if you do not attend.** You must officially drop your classes by the published deadline to avoid a "W" on your record. You are responsible for satisfying the entire range of academic objectives, requirements and prerequisites as defined by the instructor. If you miss the first 2 class meetings, or if you have not taken the appropriate requisites, you may be required to withdraw from the course. If you are absent from class to participate in officially sanctioned University activities (e.g., band, debate, student government, intercollegiate athletics), religious obligations, or with instructor’s approval, you will be permitted to make up both assignments and examinations.

University of Utah Standards of Academic Conduct

All students are expected to maintain professional behavior in the classroom setting, according to the Student Code, spelled out in the Student Handbook. Students have specific rights in the classroom as detailed in Article III of the Code. The Code also specifies proscribed conduct (Article XI) that involves cheating on tests, plagiarism, and/or collusion, as well as fraud, theft, etc. Students should read the Code carefully and know they are responsible for the content. According to Faculty Rules and Regulations, it is the faculty responsibility to enforce responsible classroom behaviors, beginning with verbal warnings and progressing to dismissal from and class and a failing grade. Students have the right to appeal such action to the Student Behavior Committee.

Academic Misconduct Handbook Statement

* Academic misconduct will not be tolerated. Penalties may include failure of an assignment, the entire course, and/or the filing of formal charges with appropriate university authorities. Academic misconduct includes, but is not limited to, cheating, misrepresenting one's work, and plagiarism:

* Cheating involves the unauthorized possession or use of information in an academic exercise, including unauthorized communication with another person during an exercise such as an examination.

* Misrepresenting one's work includes, but is not limited to, representing material prepared by another as one's own work or submitting the same work in more than one course without prior permission of all instructors.

* Plagiarism means the intentional unacknowledged use or incorporation of any other person's work in one's own work offered for academic consideration or public presentation.

University of Utah Center for Disability Services

In compliance with the Americans with Disabilities Act of 1990, The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If any student needs accommodations in the class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, 581-5020 (V/TDD). CDS will work with students and course instructors to make arrangements for accommodations. All written information in this course can be made available in alternative format with prior notification to the Center for Disability Services; students requiring this service must advise the Center of their needs.

Equal Access Statement: The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Union Building, 581-5020 (V/TDD). CDS will work with you and instructors to make arrangements for accommodations. All written information in the course can be made available in alternative format with prior notification to CDS.

Addressing Sexual Misconduct: Title IX makes it clear that violence and harassment based on sex and gender, which includes sexual orientation and gender identity/expression, is a Civil Rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, color, religion, age, status as a person with a disability, veteran's status or genetic information.

If you or someone you know has been harassed or assaulted on the basis of your sex, including sexual orientation or gender identity/expression, you are encouraged to report it to the University's Title IX Coordinator; Director, Office of Equal Opportunity and Affirmative Action, 135 Park Building, 801-581-8365, or to the Office of the Dean of Students, 270 Union Building, 801-581-7066. For support and confidential consultation, contact the Center for Student Wellness, 426 SSB, 801-581-7776. To report to police, contact the Department of Public Safety, 801-585-2677(COPS). Additional information regarding reporting and victim supportive resources are available at the offices listed.

Student Veterans: The U of Utah has a Veterans Support Center on campus, in Room 161 in the Olpin Union Building. Hours: M-F 8-5pm. Please visit their website for more information about what support they offer, a list of ongoing events and links to outside resources: <http://veteranscenter.utah.edu> Please also let me know if you need any additional support in this class for any reason.

If English is your second language: There are several resources on campus that will support you with language development and writing: the Department of Linguistics ESL Program <http://linguistics.utah.edu/esl-program/>; Writing Center (<http://writingcenter.utah.edu/>); the Writing

Program (<http://writing-program.utah.edu/>); the English Language Institute (<http://continue.utah.edu/eli/>)
Please note that access to translators and dictionaries is not permitted during the exams. Students may not consult notes, texts, papers, calculators, papers, written materials, or each other during exams.



"Mr. Osborne, may I be excused? My brain is full."