GEOG 170A
EARTH'S ENVIRONMENTS: INTRODUCTION TO PHYSICAL GEOGRAPHY

Monday and Wednesday, 12noon to 12:50pm Center for ESL Room 103

Earth's surface and atmosphere are constantly being transformed and altered. Changes in the physical environment often result from complex interactions among earth's four principle spheres: the atmosphere (air), lithosphere (rocks), biosphere (the living stuff), and the hydrosphere (water). While meteorologists, geologists, biologists, and hydrologists often deal with each system separately, physical geographers are interested in the relationships and interactions among climate, water, vegetation, landforms, etc. We study the totality of ***landscapes*** – how they form, how they change. Many physical geographers are also interested in how human activities and practices influence—and are shaped by—environmental processes.

This is a Tier 1 Natural Sciences course, as well as a core course for the B.S. in Geography. Though lectures and discussions, this course introduces students to the study of the physical landscape from a geographic perspective. It focuses on how and why the earth's surface varies over space and time and examines the complex relationships that create such changes.

Check out the cool things geographers are doing at the U of A: geography.arizona.edu

Teaching Team

Lecture Instructor: **Dr. Kevin Anchukaitis**
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Discussion Instructor: Talia Anderson
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Discussion Instructor: Julie Edwards
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Course Materials and Communications

All communications concerning class are via official UA email addresses.
All course materials online via D2L (http://d2l.arizona.edu)

Locations and Times

Lecture: Monday and Wednesday 12 noon to 12:50pm, Center for ESL Room 103
Labs are all held in ENR2 Room S223 or S445

Course Format and Learning Outcomes

The course is divided into three sections. Each section covers four or five broad topics pertinent to studying and understanding physical geography. Each week is structured around two lectures. Typically, we will spend at least two or three class periods on a given topic in order to hammer home the concepts. You can expect to understand the basic processes driving spatial variability of the lithosphere, atmosphere, hydrosphere and biosphere. You can expect to master the basic physics behind energy and mass movements on Earth. You can expect to learn how to think critically, using converging lines of evidence to solve new problems and speculate about open questions.

In addition to the weekly lectures, you will have a 50-minute discussion/laboratory section once a week. The labs are a major component of this course and enable you to apply the concepts/topics from lecture in a more specific context. **Your Lab Instructor is always your first point of contact for all course issues (e.g., excused absences, grading, etc.). Your Lab Instructor can also sign Course Schedule Changes.**

For Geography undergraduate majors, this course addresses the following learning outcomes:
1. Demonstrate knowledge of core principles of physical geography in climatology and water resources
2. Recognize the key factors influencing global and regional climate in the past, present, and future.
3. Evaluate linkages between the natural environment and human systems
4. Demonstrate ability to create, refine, and interpret graphical data.
5. Understand human dimensions of environmental issues
6. Understand causes and effects of regional and global environmental change.
7. Understand concepts required for success in an environmental profession

Course Materials

Required Lecture Textbook (in bundled lecture and lab package, available at the UA Bookstore)
Christopherson, Robert W. 2018. *Elemental Geosystems*. Upper Saddle River, N.J.: Prentice Hall (9th edition)

Required Lab Manual (in bundled lecture and lab package, available at the UA Bookstore)
Christopherson, Robert W. and Charles Thomsen 2018. *Applied Physical Geography*: *Geosystems in the Laboratory*, Upper Saddle River, N.J.: Prentice Hall (10th edition)

Index Cards
You will need to buy one pack of 3-by-5-inch index cards. You will use these cards for in-class quizzes! These may be purchased at the campus bookstore or any office supply store.

Materials to bring to lab sessions:
- lab manual
- ruler (inches & centimeters)
- calculator
- colored pencils

Methods of Evaluation

Attendance & Participation (or A&P: 10% of Course Grade)

Lecture meetings will be mixtures of presentations, discussions, group activities, and writing assignments: Some class time will include practical aspects of data analysis techniques and graphical interpretation. Lecture attendance promotes mastery, so lecture attendance is key to your success! **Good attendance correlates with good grades!** We want to give you an incentive to attend every lecture: We will give 12 'pop' quizzes during the semester. (A 'pop' quiz is a quiz that is not announced ahead of time.) These 'pop' quizzes will be used to assess your attendance/participation.

We can only accept 3"x5" index cards for these quizzes! No 3" x 5" card, no quiz credit! Never attempt to turn in a quiz for an absent classmate! Students should be responsible for their own attendance.

Writing Assignments (15% of Course Grade)

Writing assignments are an integral part of this course. Two short (3-5 pages, double-spaced, typewritten, not plagiarized from the Internet) writing assignments will be required. Each writing assignment will constitute 7.5% of the course grade (for a total value of 15%). . Students will receive feedback on writing assignments (Logic, Organization, and Grammar), lab work, and tests. Students will be offered the opportunity to revise and resubmit the first of the 2 writing assignment. Due to the revise and resubmit timing, **we cannot – under any circumstances - accept late Writing Assignments!** Writing Assignment 1 (Hometown

Geography) will be due on D2L March 1st. Writing Assignment 2 will be due online April 19.

University Information Technology Services (UITS) computing labs (www.oscr.arizona.edu/locations/computing) can be used as a resource for Internet access, data analysis and word processing/printing. **Plagiarism will result in a zero for all participants!**

Tests (45% of Course Grade)

You will take three tests during the semester. Because this is a large class, each test will consist of multiple choice questions taken from the lectures and the quizzes. Tests are not cumulative. (See the Course Schedule for test dates.)

Discussion (Lab) Sections (30% of Course Grade)

You will get a separate syllabus for your lab section from your Discussion Instructors. All labs meet in ENR2 S223 or ENR2 S445.You will have weekly (or almost weekly) lab assignments during the semester. We will drop the lowest lab score. Unless otherwise noted, you will have one week to complete each lab. The labs will be turned in at the beginning of lab class the week after they are assigned. **No late lab assignments will be accepted! You must attend the lab you for which you register. All students must do their own laboratory assignments.**

Grading Policy

University policy regarding grades and grading systems is available at:
http://catalog.arizona.edu/2015-16/policies/grade.htm

Grade Distribution for this Course:
A: 90% and above
B: 80% to 89%
C: 70% to 79%
D: 65% to 69%
E: below 65%

Requests for incompletes (I) and withdrawal (W) must be made in accordance with university policies which are available at http://catalog.arizona.edu/2015-16/policies/grade.htm#I and http://catalog.arizona.edu/2015-16/policies/grade.htm#W respectively.

Requests that I reconsider the grading of any individual assignment must be made within 24 hours of that assignment being returned.

Test and Absence Policy

Failure to take an exam on the date it is scheduled, unless excused in advance, will result in 0 points. Failure to turn other assignments by their due date and time, including laboratory or discussion assignments and elements of the two writing assignments, will result in 0 points. Exceptions to this policy are at the discretion of the instructors. If you foresee an absence, you should contact your Discussion a minimum of in advance of the anticipated absence.

The UA's policy concerning Class Attendance, Participation, and Administrative Drops is available at:

http://catalog.arizona.edu/policy/class-attendance-participation-and-administrative-drop

The UA policy regarding absences for any sincerely held religious belief, observance or practice will be accommodated where reasonable:

http://policy.arizona.edu/human-resources/religious-accommodation-policy

Absences pre-approved by the UA Dean of Students (or the Dean's designee) will be honored. See:

http://uhap.web.arizona.edu/policy/appointed-personnel/7.04.02

Participating in the course and attending lectures and other course events are vital to the learning process. **As such, attendance is required at all class meetings**. Absences may affect a student's final course grade. If you anticipate being absent, are unexpectedly absent, or are unable to participate in class online activities, please contact your Discussion Instructor as soon as possible. To request a disability-related accommodation to this attendance policy, please contact the Disability Resource Center at (520) 621-3268 or drc-info@email.arizona.edu. If you are experiencing unexpected barriers to your success in your courses, the Dean of Students Office is a central support resource for all students and may be helpful. The Dean of Students Office is located in the Robert L. Nugent Building, room 100, or call 520-621-7057.

Late Work Policy

In general, work will not be accepted late except in case of documented emergency or illness. You may request an exception if you feel you have a compelling reason for turning work in late.

Laptops and other devices in the classroom

Students that use laptops or other portable electronic devices in the classroom potentially distract from the learning of other students. You may use laptops (or other devices) only to advance your learning in GEOG 170 A1 (taking notes). **BUT, please ensure you do not distract your fellow students by accessing non-course related materials, watching movies, or communicating with others within or beyond the classroom.**

Classroom Behavior

To foster a positive learning environment, ***please*** do not text, chat, make phone calls, play games, read the newspaper, or surf the web during lecture and discussion. Please refrain from disruptive conversations with people sitting around them during lecture. Students who continue to disrupt despite being asked to cease this behavior the class will be asked to leave lecture or discussion and may be reported to the Dean of Students.

The Arizona Board of Regents' Student Code of Conduct, ABOR Policy 5-308, prohibits threats of physical harm to any member of the University community, including to one's self. See: http://policy.arizona.edu/threatening-behavior-students.

Honors Credit

Unfortunately, Honors credit is not available this semester for GEOG170A. However, if you're interested in exploring additional opportunities in physical geography and earth system sciences, please make an appointment to discuss these with Kevin.

Accessibility and Accommodations

It is the University's goal that learning experiences be as accessible as possible. If you anticipate or experience physical or academic barriers based on disability, please let me know immediately so that we can discuss options. You are also encouraged to contact Disability Resources (520-621-3268) directly to establish reasonable accommodations. For additional information on Disability Resources and reasonable accommodations, please visit http://drc.arizona.edu/.

If you have reasonable accommodations, please plan to meet with me by appointment or during office hours to discuss accommodations and how my course requirements and activities may impact your ability to fully participate.

Please be aware that the accessible table and chairs in this room should remain available for students who find that standard classroom seating is not usable.

Student Code of Academic Integrity

Students are responsible for ensuring their own work and conduct meets the University's Standards.

Students are encouraged to share intellectual views and discuss freely the principles and applications of course materials. However, graded work/exercises must be the product of independent effort unless otherwise instructed. Students are expected to adhere to the UA Code of Academic Integrity as described in the UA General Catalog. See: http://deanofstudents.arizona.edu/academic-integrity/students/academic-integrity.

The University Libraries have some excellent tips for avoiding plagiarism available at: http://www.library.arizona.edu/help/tutorials/plagiarism/index.html.

Selling class notes and/or other course materials to other students or to a third party for resale is not permitted without the instructor's express written consent. Violations to this and other course rules are subject to the Code of Academic Integrity and may result in course sanctions. Additionally, students who use D2L or UA email to sell or buy these copyrighted materials are subject to Code of Conduct Violations for misuse of student email addresses. This conduct may also constitute copyright infringement.

Additional Resources for Students

UA Non-discrimination and Anti-harassment policy:
http://policy.arizona.edu/human-resources/nondiscrimination-and-anti-harassment-policy
UA Academic policies and procedures are available at:
http://catalog.arizona.edu/2015-16/policies/aaindex.html
Student Assistance and Advocacy information is available at:
http://deanofstudents.arizona.edu/student-assistance/students/student-assistance

Confidentiality of Student Records

University policies are available here: http://www.registrar.arizona.edu/ferpa/default.htm

Subject to Change Statement

Information contained in the course syllabus and course schedule, other than the grade and absence policy, may be subject to change with advance notice, as deemed appropriate by the instructor.

Lecture and Lab Schedule

Date	Topic	Reading	Weekly Assignments
9 Jan	Introduction		Get Books and Supplies! NO LAB MEETINGS THIS WEEK!
14 Jan	Atmospheric Energy & Temperature		
16 Jan	… continued	Text, Ch. 1 & 2	Get Books and Supplies! NO LAB MEETINGS THIS WEEK!
21 Jan	*No Lecture, Martin Luther King Day*		
23 Jan	Solar Energy, Seasons & the Atmosphere	Text, Ch. 3	Lab 5
28 Jan	… continued		
30 Jan	Atmospheric & Ocean Circulations	Text, Ch. 4	Lab 8
4 Feb	… continued		
6 Feb	Test 1 Review Session		Atmospheric Circulation Lab
11 Feb	**Test 1**		
13 Feb	Atmospheric Water and Weather	Text, Ch. 5	Lab Activity: WA#1 Workshop (Hometown Geography)
18 Feb	… continued		
20 Feb	Water Resources	Text, Ch. 6	Lab 12
25 Feb	… continued		
27 Feb	Earth's Climatic Regions	Text, Ch. 7	Lab 16, ***WA#1 due by noon on March 1st***
4 Mar	*No Lecture, Spring Break*		
6 Mar	*No Lecture, Spring Break*		SPRING BREAK: NO LAB MEETINGS THIS WEEK!
11 Mar	Climate Change	Text, Ch. 8	
13 Mar	… continued		Climate Change Lab
18 Mar	Test 2 Review Session		
20 Mar	**Test 2**		Lab 17, 18 ***WA#1 returned for revision***
25 Mar	Our Dynamic Planet	Text, Ch. 9	
27 Mar	Tectonics, Earthquakes & Volcanism	Text, Ch. 10	Lab 19 & WA#2 Workshop (Humans & Landscapes)
1 Apr	… continued		
3 Apr	Weathering, Karst & Mass Movements	Text, Ch. 11	Lab 19, Writing Workshop; ***revised WA #1 due on D2L***
8 Apr	River Systems	Text, Ch. 12	
10 Apr	Oceans, Coasts, and Wind Processes	Text, Ch. 13	Lab 23
15 Apr	*No Lecture*		
17 Apr	*No Lecture*		NO LAB MEETINGS THIS WEEK! ***WA#2 due on 19 April***
22 Apr	Glacial and Periglacial Landscapes	Text, Ch. 14	
24 Apr	Ecosystem Essentials	Text, Ch. 16	Biogeography Lab
29 Apr	Terrestrial Ecosystems	Text, Ch. 17	
1 May	Test 3 Review Session		Biogeography Lab due in class
8 May	**Test 3** (10:30am to 12:30am in the normal classroom)		

Lecture and laboratory schedule are subject to change