

GEOG 170A1
EARTH'S ENVIRONMENTS: INTRODUCTION TO PHYSICAL GEOGRAPHY
Monday and Wednesday, 12noon to 12:50pm ILC Room 130

Welcome to GEOG170A1 Earth's Environment: Introduction to Physical Geography'!

There are a few important documents on D2L that will guide you through this course. The first is this *overview* (this document you're reading right now), which contains my overall goals for the class as well as descriptions of the syllabus and course schedule. I want the lectures, activities, assignments, discussions, laboratories, and exams to assist us in achieving the course goals and objectives, give us an idea of where we're going, and what we hope to accomplish along the way.

Next is the *syllabus* – this contains important information about the class, including how to contact me and the Discussion Instructors, my office hours, information about the textbook, the type of assignments and grading approach, and links to important information about campus resources available to all students. The *syllabus* is -- in part -- a statement of *policies* from the University, the College, the School, and from me, so please review it early in the class and consult it frequently if you have any questions. Finally, there is the *course schedule*, which is a detailed, day-by-day description of the topics we'll cover and any assignment due dates. This *course schedule* is subject to change, to adapt to current events or change the balance of topics we cover, but I'll inform you in advance whenever there are any changes to the plan.

Overview

The goal of the course is to provide you with the opportunity to gain an understanding of the Earth's surface and atmosphere and how they are constantly being transformed and altered. Together we will develop a holistic knowledge of the various components of the Earth system, and start to view landscapes as physical geographers do – as the result of interactions between climate, water, vegetation, and landforms through time and across space.

There are three broad categories of knowledge, skills, and competencies that we'll cover during this class. First, we'll deal with developing factual knowledge about the Earth's various interacting systems – climate and the atmosphere, water in its many forms, vegetation, and the solid earth -- so that we come to understand and use terminology and deploy fundamental facts about all these different components of the landscape around us. Second, we want to extend our knowledge to important concepts – this includes things like understanding interactions, relationships, and feedbacks between parts of the earth system. Finally, the major objective is to be able to apply these facts and concepts in the framework of geographic analysis. This means being able to take what you've learned in general and apply it in new situations – this is the *really* fun part. Discussion (lab) sections will give you the opportunity to explore these categories in more depth with the guidance of your Discussion Instructors, Tony and Zach.

Ultimately, I want you to be able to 'read' a landscape and all its component parts and understand them as a 'momentary' condition, a point in time of transition and change on a dynamic Earth. I also want you to be able to add information and ways of knowing to your growing set of skills and knowledge, ones that will serve you no matter what career path you follow.

For those of you continuing on in geography and other earth and environmental sciences, this course can serve as a foundation from which you can go on to expand your knowledge into the details of the various individual systems we'll study together, develop even more powerful analytical tools, and establish a broad base in earth systems sciences.

GEOG 170A
EARTH'S ENVIRONMENTS: INTRODUCTION TO PHYSICAL GEOGRAPHY
Monday and Wednesday, 12noon to 12:50pm ILC Room 130

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 (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. Many physical geographers, moreover, are 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
Associate Professor, School of Geography and Development
Room S514, Environment and Natural Resources Building 2 (ENR2)
Office Phone: (520) 626-8054
Email: kanchukaitis@email.arizona.edu
Office Hours: Monday, 3pm to 5pm, ENR2 S514 or by appointment

Discussion Instructor: Tony Colella
Lab Sections: Wednesday 1pm, 2pm; Thursday 1pm, 2pm
Email: tonyrcolella@email.arizona.edu
Office: ENR2 S595-FF
Office Hours: TBA

Discussion Instructor: Zachary Sugg
Lab Sections: Thursday 9am, 10am, 11am, 12pm
Email: zsugg@email.arizona.edu
Office: ENR2 S470-DD
Office Hours: TBA

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, ILC Room 130
Labs are all held in ENR2 Room S230

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. 2010. *Elemental Geosystems*. Upper Saddle River, N.J.: Prentice Hall (8th edition)

Required Lab Manual (in bundled lecture and lab package, available at the UA Bookstore)
Christopherson, Robert W. and Charles Thomsen 2009. *Applied Physical Geography*. Upper Saddle River, N.J.: Prentice Hall (9th 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! Oh yes...and 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 only the first of two writing assignment. Due to the revise and resubmit timing, **we cannot accept late Writing Assignments!** Writing Assignment 1 (Hometown Climate) will be due in lecture March 2. Writing Assignment 2 (Ecological Footprint) will be due in lecture April 13.

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 True/False questions taken from the lectures and the A & P 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 S230. 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 a 0 points.

You should anticipate in advance if you cannot take an exam on the day and time outlined because:

- (1) You are traveling to an official university-sponsored event; or
- (2) You have a prescheduled medical appointment.

If you foresee an absence, you must contact your Discussion Instructor (not the Lecture Instructor) a minimum of two weeks in advance of the anticipated absence with appropriate documentation. Appropriate documentation includes a letter (on official letterhead) from your coach, instructor, or doctor that provides us with the details of the pre-existing time conflict and is signed by the appropriate party. A list of all pertinent religious holidays recognized by the University of Arizona is available at: <http://www.registrar.arizona.edu/religiousholidays/calendar.htm>.

In addition to the holidays described above, absences pre-approved by the University of Arizona's Dean of Students will be honored in this course. In all situations, however, all arrangements and/or evidence for such absences need to be taken care of in advance of the date that an absence is anticipated.

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, in order to use such a device in class, you must sit in the first two rows of the classroom for every lecture**

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

Students wishing to contract this course for Honors Credit should email me to set up an appointment to discuss the terms of the contact and to sign the Honors Course Contract Request Form. Additional information is available here: <http://www.honors.arizona.edu/future-students/honors-credit-across-campus>

Late Work Policy

In general, work will not be accepted late except in case of documented emergency or illness. You may petition me in writing for an exception if you feel you have a compelling reason for turning work in late. Please note this policy applies to the Term Paper.

Attendance Policy

The UA's policy concerning Class Attendance and Administrative Drops is available at: <http://catalog.arizona.edu/2015-16/policies/classatten.htm>

The UA policy regarding absences on and accommodation of religious holidays is available at <http://deanofstudents.arizona.edu/policies-and-codes/accommodation-religious-observance-and-practice>.

Absences pre-approved by the UA Dean of Students (or Dean designee) will be honored. See: http://uhap.web.arizona.edu/chapter_7#7.04.02

Participating in course and attending lectures and other course events are vital to the learning process. As such, attendance is required at all lectures and discussion section meetings. Students who miss an assignment or other due date due to illness or emergency are required to bring documentation from their healthcare provider or other relevant, professional third parties. Failure to submit third-party documentation will result in an assignment being considered late and make result in loss of some or all points for an assignment. Also see 'Test and Absence Policy' on the previous page.

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 welcome to contact Disability Resources (520-621-3268) 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
13 Jan	Introduction		Get Books and Supplies! NO LAB MEETINGS THIS WEEK!
18 Jan	<i>No Lecture, Martin Luther King Day</i>		
20 Jan	Solar Energy, Seasons & the Atmosphere	Text, Ch. 1 & 2	Get Books and Supplies! NO LAB MEETINGS THIS WEEK!
25 Jan	... continued		
27 Jan	Atmospheric Energy & Temperature	Text, Ch. 3	Lab 5
1 Feb	... continued		
3 Feb	Atmospheric & Ocean Circulations	Text, Ch. 4	Lab 7
8 Feb	... continued		
10 Feb	Test 1 Review Session		Lab 8
15 Feb	Test 1		
17 Feb	Atmospheric Water and Weather	Text, Ch. 5	Lab Activity: WA #1 Workshop: Hometown Climate
22 Feb	... continued		
24 Feb	Water Resources	Text, Ch. 6	Lab 10
29 Feb	... continued		
2 Mar	Earth's Climatic Regions	Text, Ch. 7	Lab 12,13 WA #1 (Hometown Climate), <i>due in lecture 2 Mar</i>
7 Mar	Climate Change	Text, Ch. 8	
9 Mar	... continued		Lab 16
14 Mar	<i>No Lecture, Spring Break</i>		
16 Mar	<i>No Lecture, Spring Break</i>		NO LAB MEETINGS THIS WEEK!
21 Mar	Test 2 Review Session		
23 Mar	Test 2		
28 Mar	The Dynamic Planet	Text, Ch. 9	Lab 17, 18 & WA #2 Workshop: Ecological Footprint
30 Mar	Tectonics, Earthquakes & Volcanism	Text, Ch. 10	Lab 19, 20
4 Apr	<i>No Lecture</i>		
6 Apr	... continued		Lab 19, 20 continued
11 Apr	Weathering, Karst & Mass Movements	Text, Ch. 11	
13 Apr	River Systems	Text, Ch. 12	Lab 23 & WA #2 (Ecological Footprint), <i>due in lecture 13 Apr</i>
18 Apr	Oceans, Coasts, and Wind Processes	Text, Ch. 13	
20 Apr	Glacial and Periglacial Landscapes	Text, Ch. 14	NO LAB MEETINGS THIS WEEK!
25 Apr	Ecosystem Essentials	Text, Ch. 16	
27 Apr	... continued		Biogeography Lab
2 May	Terrestrial Biomes	Text, Ch. 17	
4 May	Test 3 Review Session		Biogeography Lab due in lecture
11 May	Test 3 ('Final' Exam), 10.30am-12.30pm		

Lecture and laboratory schedule is subject to change.