

FIELD STUDY IN ENVIRONMENTAL GEOGRAPHY (GEOG 303)

University of Arizona
School of Geography and Development

PRESESSION 2010

MONDAY-FRIDAY 9:00 AM – 11:50 AM; HARVILL 402

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Office Hours: by appointment

Course Description & Structure

This three-credit-hour course is designed to introduce you to the fundamentals of fieldwork-based geographical research methods and scientific report writing. We will spend most of our time exploring concepts, techniques and tools pertinent to physical geography. Ultimately, you will end up writing a report for a field-based research paper with your own, primary data that YOU collect.

There are no prerequisites for this course. However, you will probably find this course most valuable and are most likely to succeed at earning a high grade in this course if you are already familiar with key concepts of the physical sciences and you are determined to learn more about environmental geography.

Course Goals

By the end of this course, you should be able to:

- better “read” natural and cultural landscapes (e.g., identify, analyze, interpret, and predict spatio-temporal patterns and processes of vegetation, soil, landforms, land use, etc.);
- utilize a range of geographical field techniques and tools;
- apply various techniques for the evaluation, analysis, and synthesis of geographical data;
- **generate a professional oral and written scientific report.**

Course Materials

Textbook

There is no required textbook for this class, because no existing textbook adequately covers all of the material that we will be discussing in class. However, there will be several required and recommended readings for some of the course topics; these readings will be made available to you on the D2L course website and you will have to prepare them for class as instructed.

Materials

There is no specific set of materials you need to bring to every class period. However, there is a range of materials you will need at one point or another during the semester (I will let you know when you will need which materials), including:

- *Rite in the Rain* All-Weather Notebook for taking notes in the field (Tucson Audubon, UA Bookstore)
- Pencil and eraser
- Metric ruler and protractor
- Pocket calculator
- Field clothes
- Water bottle
- Camera (digital or film; cell phone camera *is rarely* high enough resolution)
- ...

Website

The website for this course can be found at www.d2l.arizona.edu. To access course materials, simply log in to your D2L account (UA NetID and password) and click the link for this course. On the website, you will find lecture notes, class handouts, assignments, reading materials, announcements, and your grades. The website is a key element of this course and you are required to review its contents regularly. If you encounter problems related to the website, please contact me immediately.

Field Trips

There will be two off-campus field trips during this summer session. Details are below on the course schedule.

On **27 May**, we will take a trip to the Santa Catalina Mountains. You will use this field trip to investigate your own scientific projects. **You must attend the field trip.** If you fail to do so and if you fail to attend the field trips, you will receive a zero (0 %, 0 points) for the field trip-related component of your grade. There will be no opportunities to make up this trip. Further details regarding the field trips will be made available to you in class and on the course website. For the field trip, we will depart from the parking lot directly northeast of Harvill at 7:15 AM sharp.

On **1 June** we will meet at 9:30 AM at the parking lot on top of Sentinel Peak (also called A Mountain). You are responsible for your own transportation to this site: city buses and bike lanes run close to Sentinel Peak Park, and carpooling provides another good option.

Grading

Your final course grade is determined by the amount of points you earn out of a total possible 1000 points. The points are allocated as follows:

Assignments (x 10)	500 points	50 %	} 1,000 Points (100 %)
Research Talk	50 points	5 %	
Research Report	150 points	15 %	
Final Exam	200 points	20 %	
Participation	100 points	10 %	

Your final course letter grade will be based on the following scale:

A	≥ 895 points	90-100 %	<i>I don't curve grades.</i>
B	795-894 points	80-89 %	
C	695-794 points	70-79 %	
D	595-694 points	60-69 %	
E	< 595 points	< 59 %	

Exams

There will be one exam that will test your understanding of the concepts, tools, and techniques discussed throughout the term. The exam will account for **20%** (200 points) of your final course grade and consist of multiple choice, short answer and essay questions, and practical tasks (e.g. demonstrating how to use field equipment). All course materials are considered potential exam material. A **make-up exam** will only be given to those students who can provide a Dean's excuse for the day of the exam. Any excuse notes must contain a signature, a date, and your name. Exams represent your understanding of the course material and not that of your peers; that is, taking exams is an **individual** effort, not a team effort (See "Code of Academic Integrity" statement below). Further details regarding the exam will be provided to you in class and on the course website. At the end of the semester, a **Lab practicum** will be administered. This exercise will demonstrate that you know how to use field equipment and take accurate measurements.

Assignments

Over the course of the term, you will have to complete ten "hands-on", individual and group assignments that are designed to improve your understanding of concepts, techniques, and tools discussed during the lectures. Each assignment will account for 5% (50 points) of your final course grade or for a combined total of **50%** (500 points). Each assignment will be unique and require a specific set of guidelines and instructions; these will be provided to you via the course website and you are required to prepare them for class as instructed. Some of the assignments may be completed entirely during our regularly scheduled class meeting times; others will require additional work outside of class. Each assignment will be due one class period after it is assigned, at the beginning of class (unless otherwise noted). **Late submissions will not be accepted*** and will receive 0 points. Most assignments will be carried out through **teamwork** (See "Team Work" statement below). Emailed assignments will not be accepted unless you arrange something with me prior to the due-dates.

Field trip report

You will have to complete one field trip report. Your report will be turned in as a group project. The field trip report will contribute 15% (150 points) toward your final course grade. Details regarding the field report will be provided to you in class and on the course website. For now, note that only those reports based on excellent field notes, sketches, and photographs can earn the highest grades. Furthermore, only those reports that are submitted on time will be evaluated (For due dates, refer to the Tentative Course Outline below). **Late submissions will not be accepted*** and receive 0 points (more on this under the policies section). You and your group

will also prepare to present your report on the due date. Each group will present for 15 minutes and be expected to answer 5 minutes of questions from the audience (including me!). You are expected to present your research in a professional manner, as an oral, Powerpoint-style presentation. This presentation will account for 5% (50 points) of your final grade.

Participation and Peer Evaluations

Your participation in this class will be determined by your instructor and your peers. Ten percent (10% (100 points)) of your course grade will be determined by points awarded based on peer reviews. Peer evaluations are due after every assignment, and should be uploaded to D2L. Your participation grade will be based on the following criteria: attendance; preparedness for class; participation in class discussions; participation in laboratory and field activities; and general behavior (e.g., assistance to other students; ability to compromise and respect other people's ideas; ability to motivate others; responsible behavior in the field; etc.). The success of an interactive course such as this one heavily depends on the participants.

Team Work

In a course such as this, working collectively on assignments with others is generally very beneficial. So, on the first day of class, you will be divided into teams, each comprised of four to five students. I will determine the teams. While you as a team member will initially receive the same grades as all other members of your team, adjustments of your grades (upward or downward) may be made based on peer evaluations. It is thus in your own best interest to always be prepared and contribute as much as possible to teamwork and other class activities. It is up to each member of a group to insure that the work is up to his/her own standards. Thus, if I determine that groupwork was plagiarized or that other infractions of the Code of Academic Integrity have occurred, I will penalize the entire group.

Policies, Codes, Etc.

CODE OF ACADEMIC INTEGRITY: "Integrity and ethical behavior are expected of every student in all academic work. This Academic Integrity principle stands for honesty in all class work, and ethical conduct in all labs and clinical assignments. This principle is furthered by the student Code of Conduct and disciplinary procedures established by ABOR Policies 5-308 through 5-404, all provisions of which apply to all University of Arizona students. This Code of Academic Integrity (hereinafter "this Code") is intended to fulfill the requirement imposed by ABOR Policy 5-403.A.4 and otherwise to supplement the Student Code of Conduct as permitted by ABOR Policy 5-308.C.1." For the complete Code of Academic Integrity, please refer to <http://dos.web.arizona.edu/uapolicies/UACAipolicies.pdf>.

POLICY ON THREATENING BEHAVIOR: "The University seeks to promote a safe environment where students and employees may participate in the educational process without compromising their health, safety or welfare. 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. Threatening behavior can harm and disrupt the University, its community

and its families.” Please refer to <http://policy.web.arizona.edu/~policy/threatening.pdf> for the complete policy. Firearms are not allowed on University property and will not be tolerated on off-campus field trips.

STUDENTS WITH DISABILITIES: If you have a documented physical, psychological, or learning disability and anticipate needing accommodations in this course, please meet with us immediately so that we can discuss ways to ensure your full participation in the course. If you determine that formal, disability-related accommodations are necessary, you must be registered with Disability Resources (621-3268; <http://drc.arizona.edu/>) and notify us of your eligibility for reasonable accommodations. We can then plan how best to coordinate your accommodations.

ABSENCE POLICY: All holidays or special events observed by organized religions will be honored for those students who show affiliation with that particular religion. Absences pre-approved by the UA Dean of Students (or Dean's designee) will be honored. All other absences will be handled as described elsewhere in this syllabus.

WHAT YOU CAN EXPECT FROM ME: I will be available in class, during office hours, scheduled appointments, and via email (within reason) to respond to any questions or concerns you may have. Don't be shy and contact me as soon as ambiguities, problems, or concerns arise! I reserve the right to change scheduled lectures, exams, and assignments. Any changes made will not adversely affect your workload or grade.

WHAT I EXPECT FROM YOU: Enrolment in this course and acceptance of this syllabus is your contract constituting acceptance of ALL University of Arizona policies and codes (<http://dos.web.arizona.edu/uapolicies/>). Students who violate these policies and codes will be dealt with severely, at both the course and the University level. Enrolment in this course and acceptance of this syllabus is also your contract constituting acceptance of ALL specific policies outlined in this syllabus. You will be on time for all class-related activities, submit all tasks as instructed, and always show “good” behaviour toward both your peers and instructor.

***An additional note on my “late submission policy”:** I am NEVER willing to accept late work, UNLESS the work is accompanied by an official note, with your name on it, and a dated signature from a doctor, a police officer, another professor/instructor, or another similar official. Confusion between group members and individuals is not a valid excuse. Conflicts and accidents tend to occur very near due-dates, so plan accordingly.

Course Outline and Schedule

<i>Date</i>	Topics
<i>17 May</i>	Course Overview: Participants & Syllabus Introduction to Research Methods and Field Studies in Geography Assignment #1: Remote Sensing & GIS: Habitat Modeling
<i>18 May</i>	Introduction to Mapping Techniques I Portraying Earth: The Basics Assignment #2: Topographic Maps
<i>19 May</i>	Introduction to Mapping Techniques II GPS Basics Assignment #3: GPS Techniques
<i>20 May</i>	Scientific Communication in Geography Assignment #4: Pace and Compass, Distance and Angles
<i>21 May</i>	Introduction to Sampling in Geography Biogeographic techniques in geography Assignment #5: Transect and Quadrat; Allometry
<i>24 May</i>	Overview of Data Analysis & Display Data Types; Statistics; Tables, Graphs, Maps, Etc. Assignment #6: Data Analysis & Display
<i>25 May</i>	Introduction to Sampling in Geography Climate Assignment #7: Microclimatology
<i>26 May</i>	Field methods I Introduction of field methods and concepts to be applied during field trip
<i>27 May</i>	Field Trip: Mount Lemmon: Meet at Harvill at 7:00
<i>28 May</i>	In-class analysis direction for your data.
<i>31 May</i>	Memorial Day Holiday: No Class
<i>1 June</i>	Field methods II Assignment #8: A Mtn Surveying: Meet 9:30, parking lot at top of Sentinel Peak
<i>2 June</i>	Dendroecology: Assignment #9: Dendrochronology and crossdating
<i>3 June</i>	Field Trip Reports: Presentation and Writeup due Assignment #10: Tree ring climate reconstruction
<i>4 June</i>	Final Exam and Lab Practicum

***** I reserve the right to make changes to this schedule.