

SOIL AND SOCIETY
GEO 5395/7393j, Spring 2015
T 6:30 – 9:20pm, Room ELA 312

Instructor: Dr. Jason Julian
Office: Evans Liberal Arts (ELA), Room 322
E-mail: Jason.Julian@txstate.edu, Phone: 512.245.3201
Office Hours: T 8:00 – 11:00am in ELA 322 or 120, or by appointment

COURSE DESCRIPTION

This course explores the importance of soil resources for environmental and socioeconomic sustainability. Soil science will be introduced and referenced throughout the semester, but the majority of the course will focus on soil's value to societies. Specific topics that will be explored include soil geography, historical abuses of soil resources, and current conservation efforts. Local and international studies will be examined. The textbook will set the theme for the course, but journal articles and other relevant writings will be used for discussion.

Student Goals and Objectives

- Gain a fundamental understanding of soil science and soil geography.
- Understand and be able to communicate the importance of soil resources for environmental and socioeconomic sustainability.
- Refine writing and presentation skills.

Required Textbook: *Dirt: The Erosion of Civilizations* by D.R. Montgomery; University of California Press, Berkeley, 285 pp. Supplemental readings will be posted to TRACS.

Grading: Your grade in the course will be determined by how many points you accrue out of the total possible 100 points. The final letter grades will be assigned as follows: A = 90-100, B = 80-89, C = 70-79, D = 60-69, F = <60. The points are allocated as follows:

Participation/Contribution to in-class discussions	20 points
Current Events	10 points
Field Trip	5 points
Short Essay	10 points
Midterm Exam	15 points
<u>Final Research Paper/Presentation</u>	<u>40 points</u>
TOTAL	100 points

In-class discussions

After the first couple weeks (which will be devoted to soil science and geography), the majority of class time will be spent discussing the readings and relevant issues. I expect all students to participate in these discussions. Each student starts out with 20 pts for this category. Those who do not participate in discussions regularly and those who miss class will have points taken away from this total. Therefore, it is important for you to attend all classes and prepare for these discussions by doing all assigned readings. Additionally, each student will be the lead discussant for a journal article twice during the semester. Details of this task will be provided the first day

of class and the professor will be the first lead discussant so as to provide an example. Your performance as a lead discussant is a major part of your in-class grade (worth 5 pts each).

Current Events

Keeping up to date on soil resource issues requires you to find and post relevant media weekly, for at least 10 weeks of the semester (1 point each post). I have set up a closed group within the Texas State University group on Facebook: **“Soil Resources for Bobcats”**. Because it is a closed group, you will have to ask permission to join, which I will grant. Once you are in the group, you are expected to post at least one soil resources related story/link/event every week for at least 10 weeks of the semester. Under the post, you are required to comment/summarize the story/link/event. Duplicate postings will not count. Therefore, you are responsible for looking at all postings, which will prevent you from posting something that has already been posted. Postings from previous classes can serve as examples of what I expect. Because this is a closed group, only members within the group will see your postings, so feel free to be creative in your postings and comments. Since this is an “.edu” group, no friend requests are needed to join the group, which means your personal profiles will be protected as you see fit. All that is required to be in the Texas State University group is that you create a profile with an XX@txstate.edu email address and join “Groups at Texas State” first. You can set up a dummy profile if you choose, but make sure your name is recognizable by me, so I can keep track of your posts for your grade. This Facebook group is my preferred method of sharing soil resource topics with the class because it is easy to use, convenient, can easily be linked to a wide variety of sources, and can use multi-media. If for some reason, you do not want to use Facebook, you can email me your weekly postings, which I will then post to the group.

Short Essay

There will be one short writing assignment, which will be turned into TRACS by the specified due date. This essay will be 4-6 double-spaced typed pages (1” margins; 12-pt TNR font), not including references or figures/tables. This essay is worth 10 pts.

Field Trip

There will be one all-day Friday field trip, worth 5 pts. Details of the field trip will be discussed the first day of class. Those not able to attend the field trip will be given a makeup assignment.

Exam

The midterm exam (worth 15 pts) will be short answer format and focus largely on concepts in soil science and soil geography. The date of the **midterm will be February 24.**

Final Research Paper

The final research paper will be 8-12 double-spaced typed pages (1” margins; 12-pt TNR font; not including references or figures/tables) on a topic of your choice, but related to course themes and pending approval by professor. A one-page summary of your proposed topic is due in TRACS dropbox by **March 6**, but you may turn it in earlier if you want to start working on your research paper. This project can be done in a 2-person group; however, in the proposal you must state what each student will be responsible for. Also, group papers must be 12-16 double-spaced pages. The final research paper is due in TRACS by 11:59 pm on **April 28.** During the final

week of class, you will give a 10-15 minute presentation of your paper. This paper is worth 40% of your grade and will be evaluated by the quality of the paper and presentation.

Late Assignments: Late work will be accepted but there will be a grade penalty that increases with each day past the due date.

Extra credit: There will be no extra credit in this course, but you are encouraged to pursue interests related to Soil Resources throughout the course and the rest of your career.

Course Policies

Attendance Policy: You are required to attend all classes. Unexcused absences will result in deductions from your Course Participation grade. You are responsible for all materials and announcements made in class. If absent, make sure you check the lecture on TRACS for announcements you missed in class.

Electronic Devices: Electronic devices such as laptops, tablets, and smartphones are allowed in class as long as they are being used for viewing class materials and taking notes. If you are caught using electronic devices for any other reason, then you will forfeit your right to use electronic devices in class for the rest of the semester. These other reasons include, but are not limited to, social networking, texting, email, and viewing non-GEO 5334 material. If I find that your electronic device is distracting or prevents you from paying attention in class, I will ask you to refrain from its use. If you are expecting a life and death announcement from an immediate family member, please notify me before class of that situation.

Learning Outcomes: The Department of Geography's Student Learning Outcomes for all departmental programs may be reviewed at: <http://www.geo.txstate.edu/about/apr.html>.

Texas State University Honor Code (<http://www.txstate.edu/effective/upps/upps-07-10-01.html>)

*Learning and teaching take place best in an atmosphere of intellectual fair-minded openness. All members of the academic community are responsible for supporting freedom and openness through rigorous personal standards of honesty and fairness. Plagiarism and other forms of academic dishonesty undermine the very purpose of the university and diminish the value of an education. Specific sanctions for academic dishonesty are outlined in **Texas State Student Handbook**.*

Students with Special Needs/Disabilities: If you have a condition that requires special accommodation (as documented by the Office of Disability Services) in order to successfully complete the course, you must notify the Office of Disability Services (located at LBJ 5-5.1; ph. 512.245.3451) **AND the instructor** in a written memo (or email) before the end of the second week of classes. Failure to do so may result in the necessary accommodations not being made. *Texas State University San Marcos is dedicated to providing these students with necessary academic adjustments and auxiliary aids to facilitate their participation and performance in the classroom* (<http://www.txstate.edu/effective/upps/upps-07-11-01.html>).

Academic Testing for Students with Disabilities (<http://www.txstate.edu/trec/atsd/accessAtsdTS.html>). *Students who are approved for testing accommodations have the option of using Academic Testing for Students with Disabilities (ATSD) office to take in-class tests or quizzes with their accommodations. Any student who schedules a test(s) with ATSD must schedule tests during the in-class scheduled test time (or seek an exception from the instructor) and are expected to take the test at ATSD. If a student schedules to*

take test with ATSD but decides that they will take the test in the classroom, the student will be responsible for notifying the ATSD and the instructor prior to the class start time.

Professionalism: Our society considers a “professional” as a person who is responsible for the quality, integrity, and implications of his/her work. In the Department of Geography, we consider our students to be “professionals in training.” Course requirements are intended to bring the conduct and the quality of work of students in our programs up to professional standards. Students are responsible for attending class on time, reading the assignments, and completing the assigned projects on time in an aesthetic and thorough manner. We assume that students are aware of, and practice common courtesy and the consideration of others that are necessary for a civil society and that are expected of professional persons. For additional information on Texas State University policy on student conduct, we encourage you to consult the university Policy and Procedures Statement on: Courteous Behavior, Classroom Civility, Classroom Disruption, Suspension from Class and Sexual Harassment.

<http://www.provost.txstate.edu/pps/policy-and-procedure-statements/4-teaching/pp4-02.html>.

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Course Outline:

Week 1: Introduction and Syllabus

Week 2: Physical properties of soils

Week 3: Soils geomorphology

Week 4: Soil ecology

Week 5: Geography of soils & Agroecosystems

Week 6: Midterm

Week 7: Urban soils & Low impact development

Week 8: Soil hydrology

Week 9: SPRING BREAK

Week 10: Desertification

Week 11: Dust Bowl

Week 12: Climate Change & Soils

Week 13: Soil sustainability

Week 14: When societies collapse

Week 15: Student presentations