Soils and Society Syllabus (GEOL152) Spring 2013

Instructor:	Amanda Schmidt
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Office hours:	Mon 1:30 – 3pm
	Thur 1:30 – 3pm
Class meeting times: SEV108	Mon, Wed, Fri 10-10:50 am

If you need to come see me but cannot come during office hours, you may make an appointment for a more convenient time. If you do not understand some of the course material, please ask questions before it is too late! To encourage you to come see me, there is 1 extra credit point available if you come to see me during office hours (or a different time that you arrange) during the first two weeks of the semester.

My teaching philosophy

Soils and Society is designed to be a partnership between me, the professor, and you, the students. My aim for the class is to minimize the time I stand in front of you and lecture and, instead, to maximize the time that you are applying earth surface processes topics to activities. This way you learn the material more deeply as you are not only practicing the intellectual knowledge, but you are able to apply it to a variety of situations. I will give you a chance for a mid-semester evaluation of my teaching, but if you have suggestions prior to or after that, please let me know.

Learning goals:

By the end of the semester, my goal is that you will be able to:

a. Evaluate the relative effects of anthropogenic activities on soil and hillslope processes.
b. Effectively argue for stances on anthropogenic activities that you may not agree with when role-playing individuals with certain jobs, economic status, and community role. In other words, you will be able to play devil's advocate and acknowledge the validity of arguments you may not agree with.
c. Communicate arguments for and against anthropogenic activities in a clear, coherent, and understandable way.
d. Identify and describe interactions between different hillslope and soil processes.
e. Transfer knowledge about the effects of one anthropogenic activity in one location on soil and/or hillslope processes to other locations and variations on the anthropogenic activity.
f. Use numerical models to predict the effects of anthropogenic activities on hillslope processes.

How to succeed in Soils and Society

All class meetings require active involvement. To participate, you must prepare before each class.

Before each scheduled class, read the appropriate parts of the text book or other readings and take notes on it. Be sure to bring your notes and textbook with you to class. I commit to not giving you more huge amounts of reading for a single class, but in return I expect that you spend the time to do the reading.

Email me before 7:00 am on the day of each class if you have specific questions or topics you want me to clarify that day, and I will respond at the beginning of class. If I receive no questions or requests, I will assume everyone in the class understands the reading on the topic and I will not spend time explaining information. You are responsible for any concept covered in the reading, even if I do not discuss it in class. Your responsibility is to let me know about anything you want me to explain further, and you cannot do this without first reading the section and taking notes. Reading may not be explicitly covered in class but you are still responsible for it!

Class time is for exercises that assume prior knowledge from reading assignments. You work with your classmates for many of these activities. Some will be fun and all will help you apply your knowledge and prepare you for upcoming tests. If you fail to read the chapter or take notes before each class, you will let your classmates down, and you will not acquire the comprehension and expertise during the activities.

During the last two minutes of each class, you will describe in writing the Murkiest Point – something from that class you still do not fully understand. If you understand everything, instead describe the Most Interesting Point. You will sign this paper and hand it in as you leave. To be marked as attending the class, you must write something related to the day's class on your paper. I will begin the next class with an explanation of "murkies" that are common to many people; otherwise I will email you personally with an explanation. This is an important opportunity for additional clarification.

Academic honesty

There will be two closed book tests in this class. You will be allowed one side of an 8½ by 11 inch sheet of paper for notes. You may not consult references, notes, or any other person (besides me) while taking the test. The tests will be timed tests taken on Blackboard. I expect you to sign the Honor Pledge on each test to attest to your adherence to the Honor Code. I will not record your grade for a test until the pledge is signed.

Regular homework exercises are normally expected to be small group efforts. Consultation with classmates and reference materials is expected and encouraged. However, each student must hand in his/her own assignment (unless otherwise stated) and I expect written work to be your own understanding of the assignment and not copied from a classmate's.

Similarly, you may consult with people for your final project but what you turn in must represent your understanding of the material.

Attendance

Attendance at all schedule class meetings is very important. Each class includes activities that you complete alone or in teams. You are responsible for all material covered during class, whether you were present or not. If you are absent, look at what you missed on the topic schedule and discuss what we did with a classmate or me. A record of the Murkiest Point papers will assess your attendance.

Computers and phones in class

Unless I state otherwise, computers, phones, and other digital devices are not to be used during class time. If I see such a device during class, I will take it away until the end of class. Computers may be used to take notes during lecture but you must not be using them for other things (like email) at the same time. I commit to not using my phone during your class and I need your commitment that you won't use your phone during my class.

Resources

Textbooks and other class materials

There are two required texts for this class:

Dirt: The Erosion of Civilizations by David R. Montgomery is available for purchase online. There is also a copy on reserve in the library. If you are ok with reading digital books, the library has digital access to this book from campus.

Building Soils for Better Crops: Sustainable Soil Management by Fred Magdoff and Harold Van Es is available for purchase or download (free!) from sare.org.

I will post links to both books on Blackboard. Other readings will be posted on Blackboard along with assignments and field trip information.

Blackboard

Blackboard is an online course-management system that we will use in that is accessible with your ObieID. Through Blackboard, you will receive important announcements from me, communicate with me, communicate with classmates, access course materials, and participate in other activities I explain during the semester. You can login at http://blackboard.oberlin.edu.

Tutoring and other assistance

If you are in any way concerned about your ability to succeed in this course, you should get help immediately. Student Academic Services is the best resource for you to determine how to get that help, whether it is tutoring, seeing me for extra help, or help with organizing yourself to keep up with the class. They are located in Room 118, Peters Hall. More information is online at http://new.oberlin.edu/arts-and-sciences/academic-resources-and-support/student-academic-services.dot.

If you require special accommodations, the Office of Disability Services will provide those for you. Remember you must provide all relevant documentation to the Office of Disability Services. They will supply you with a letter to share with me so that I know what accommodations you need and can arrange to meet those accommodations. It is most helpful if we work the details out well before your need for accommodation arises. The Office of Disability Services is located in Peters G-27/G-28.

Assignments

Most assignments will be turned in on Blackboard.

Readings and other homework

BEFORE each class, read appropriate parts of the chapters listed on your Topic Schedule and see if there are assignments due on Blackboard. Complete any other assignments listed for the class day. You are expected to be familiar with this material before the first class for which it is relevant.

Field trips

There will be one optional field trip this spring that you can earn extra credit for attending. Date TBD.

Blog assignments

Throughout the course you will be engaged in an anonymous forum online where you apply the topics discussed in class to real people's lives in a fictional case study location. Each of you will be given details about your current status (job, economic status, role in community) and will develop an avatar based on those characteristics. Every other week I will give you a reflection assignment related to your fictional community. Each post will be worth 10 points. The goal of these assignments is to get you to think about connections between different topics in class and how different people have different perspectives on issues. In other words, what does it feel like to be in someone else's shoes? On weeks when you don't have a post you will respond to other people's post within groups that I assign. Your responses to other posts are also worth 10 points each.

Writing assignments are due at the time noted on Blackboard. If they are later than that, they are considered to be late. 10% of the grade for an assignment is deducted for each day that any part of the assignment is late. I recommend using the writing center (http://new.oberlin.edu/arts-and-sciences/departments/rhetoric/writing-associates-program/writing-center.dot) for assistance with your writing assignments.

Science in the news

During the last 5-10 minutes of every class period one or two students will be responsible for presenting a news article related to the class. The article must be related to what we are currently covering in class and must use quantitative reasoning in some fashion. The student presenting will explain to the class the content of the story and how it relates to class. Visuals, such as PowerPoint, are optional. This is worth 30 points (the same as a single test). You will sign up on Blackboard for your presentation day during the first week of the semester.

Tests and exams

Tests will be online using Blackboard and worth 30 points each. Each will take about 1 hour.

Test review activities: Before each test you will have an opportunity for extra credit points. To be eligible, carefully follow the guidelines for writing test review questions on Blackboard and submit your questions and answer to Blackboard by the assigned date before the test review so that I can edit and organize them. No late submissions accepted! Teams will compete for extra credit points by answering these questions.

Types of test questions: Questions emphasize critical thinking skills acquired in class. For each test you may bring one 8½ by 11-inch paper on which you have written important facts (one side only) and your name. I may ask to see these after the test.

Make up: If you know in advance that you will be absent during a test and unable to take it online, you must obtain permission from me at least two school days *before* the day of the test. Unanticipated absences will result in a grade of F (zero points) unless you email me on the day on which the test was scheduled and present medical or legal documentation at the earliest possible date after the class period.

Final project

There will be an individual final project (worth 50 points) due to Blackboard at the time of the exam in lieu of a final exam. Details will be announced as the time gets closer.

Participation

Participation is worth 40 points (of 300) towards your final grade this semester. Class attendance and attitude in class will be factored into your participation grade. Each day that you work in groups, your Murky Point paper will include a grade from 1-3 for each member of your group, including yourself. Only one member of the group can earn a 3 on any given day. These peer grades will be part of your participation grade. Missing class or not participating on a regular basis will be detrimental to your grade.

Grading procedures

The class is graded out of 300 points (excluding extra credit) distributed in the following way:

2 tests @ 30 each	= 60
Final project	= 50
Science in the news	= 30
Blog entries	
6 entries @ 10 each	= 60
6 responses @ 10 each	= 60
Participation/homework	= 40
Total	= 300

To determine the letter grade for a test or exam or for the course:

1. Calculate your percentage based on the total possible points using this ratio: points obtained/total possible points x100 = %
2. Covert the percentage to a letter grade using the scale below:

A = 93-100%	B- = 80-82.9%	D+ = 67-69.9%
A- = 90-92.9%	C+ = 77-79.9%	D = 63-66.9%
B+ = 87-89.9%	C = 73-76.9%	D- = 60-62.9%
B = 83-86.9%	C- = 70-72.9%	F = 00-59.9%

Topic Schedule

Reading assignments are due on Mondays (unless there is a test or otherwise no class that day) and noted in italics. Blog posts are due on Friday of the week that they are assigned at 11:59 pm; responses are due the following Friday at 11:59 pm. Other homework assignments will be posted on Blackboard as necessary. **Tests and major project deadlines are noted in bold.** The topics listed below are subject to change, but the major test dates will not change.

Date	Weekly topics	Homework
4-8 Feb	Soil development Introduction to class Weathering, soils People as geomorphic agents	*Dirt: chapter 2 for Wednesday* Send me intro for blog Sign up for article sharing
11-15 Feb	Farming and soils - problems No class on 11 Feb *Assignment in lieu of class due Monday* Population growth Colonies Civilizations and soil loss	*Dirt: chapter 5 for Wednesday* Blog post due Friday
18-22 Feb	Farming and soils - problems Erosion Haiti The Dust Bowl	*Dirt: chapter 7 for Monday* Blog response due Friday
25 Feb – 1 Mar	Farming and soils - problems Nutrient loss Easter Island Nauru, pesticides, and agriculture	*Dirt: chapter 8 for Monday* Blog post due Friday
4-8 Mar	Farming and soils - solutions Organic matter Rice paddies Cuba	*Building soils: chapters 2&3 for Monday* Blog response due Friday
11-15 Mar	Farming and soils - solutions Nutrients Ants in Australia Tikopia	*Building soils: chapter 9 for Monday* Blog post due Friday
18-22 Mar	Farming and soils - solutions Reducing tilling Test review **Test 1: 22 Mar**	*Building soils: part of chapter 16 for Monday* Test review questions (for extra credit) due Monday 18 Mar Blog response due Friday
25-29 Mar	Spring Break	

Date	**Weekly topics**	**Homework**
1-5 Apr	Hillslopes - introduction Hillslope diffusion Modeling hillslope diffusion	*Reading on Blackboard for Monday* Blog post due Friday
8-12 Apr	Hillslopes – fires Hydrophobic soils from fires Big Pole Fire Idaho	*Reading on Blackboard for Monday* Blog response due Friday
15-19 Apr	Hillslopes – deforestation Quantifying hillslopes New Zealand Vermont	*Reading on Blackboard for Monday* Blog post due Friday
22-26 Apr	Hillslopes – landslides Hillslope failures When does a hillslope fail? Test review	*Reading on Blackboard for Monday* Blog response due Friday Test review questions (for extra credit) due Wednesday 24 Apr
29 Apr – 3 May	Hillslopes – natural hazards **Test 2: 29 Apr** Taiwan earthquakes, landslides, and relocation Geomorphology and natural hazards	*Reading on Blackboard for Monday* Blog post due Friday
6-10 May	Hillslopes – tying things together Theory of Himalayan Environmental Degradation Everest area China land use and erosion	*Reading on Blackboard for Monday* Blog response due Friday
15 May	Final project (in lieu of final exam) **Final project due to Blackboard by 9 pm on 15 May**. College policy requires that I do not accept late assignments.	