

SOCR 400 SOILS AND GLOBAL CHANGE: IMPACTS AND SOLUTIONS

INSTRUCTOR INFORMATION

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Communication Policy: Please contact me via email or schedule an office hours appointment. Student inquiries are very important to me, and emails will be responded to within 24-48 hours on the weekdays and within 48-72 hours on the weekends.

Prerequisite: SOCR 240 and LIFE 220 or LIFE 320

COURSE DESCRIPTION & OBJECTIVES

The Earth system is undergoing continuous changes, which have profound impacts on soil and soil processes, as well as on the capacity of soil to support demand for food, fiber, and energy. Soils and climate change are tightly linked in a series of feedback mechanisms for which understanding is critical to sustainably managing world soils. Regenerative soil management can thus become one of the solutions to climate change and sustainable food production.

Upon the completion of this course, students will be able to:

- Describe the main components and drivers of soil biogeochemistry
- Describe current and projected global changes, their effects on soil, and potential feedback.
- Understand and discuss the state-of-the art methods available for the study of soil biogeochemistry and the effects of climate and land use change on soils.
- Use Excel to analyze data from a basic experiment and produce a data report.
- Discuss sustainable soil management options for climate change mitigation and adaptation.
- Develop and evaluate conceptual models.
- Read and synthesize scientific literature.
- Write a short scientific paper to articulate and substantiate proposed hypothesis.



TEXTBOOK / COURSE READINGS

There is no required textbook for the course. Library Course Reserves will be utilized for required reading articles. For additional information, there are optional articles listed each week in Canvas along with a Reading Resource list available on the Start Here Page.

PARTICIPATION/BEHAVIORAL EXPECTATIONS

As outlined in CSU's Student Conduct code, it is expected that you engage in a manner that assists you and your peers in learning course material. Specifically, students are expected to:

- access Canvas regularly to be engaged with the course.
- be aware of due dates and complete coursework on time.
- engage in a professional communication style throughout the course.
- accept individual responsibility for contributing to the creation of a respectful and kind educational atmosphere in a way that both respects those with opposing viewpoints and discourages intolerance.
- complete partnered video-recorded assignments in a collegial manner to uphold your part of the assignment for your partner
- uphold the Academic Integrity policy as described below.

As the Instructor for the course, I also will be respectful of you, your time, your learning, and your questions. I also accept individual responsibility for contributing to the creation of a respectful and kind educational atmosphere in a way that both respects those with opposing viewpoints and discourages intolerance. I work to engage in open communication with students so that we can all learn together. I will remain active with you throughout the semester in numerous ways on Canvas, and I invite you to also contact me outside of those communications. You will get out of this class what you put into it! I do ask that prior to emailing questions about the class structure or course requirements you refer to the course syllabus, announcements, and other resources on Canvas. If your questions are not addressed in these resources, I invite you to email me about those. I also invite you to email me if you have specific questions about the material we are discussing or if you are finding it difficult to follow the course content.

Please review the [ground rules for online discussions](#) for some guidelines and expectations on how to behave in an online learning environment.

COURSE POLICIES (LATE ASSIGNMENTS, MAKE-UP EXAMS, ETC.)

Grades will not be curved, nor will averages be calculated. Your grade will reflect the total number points you earn. This policy will be held firmly in fairness to all students. Be sure you are earning as many points as possible throughout the semester to avoid being "on the bubble" at the end of the semester.



GRADING POLICY

Grading: Class discussions: 10 points (2 points per discussion); Lab papers: 35 points (7 points per paper), Mid-term exams: 30 points (15 points per exam); Final paper: 25 points. (Total: 100 points)

Grade	Range
A+	100% to 96.67%
A	<96.67% to 93.33%
A-	<93.33% to 90.0%
B+	<90.0% to 86.67%
B	<86.67% to 83.33%
B-	<83.33% to 80.0%
C+	<80.0% to 76.67%
C	<76.67% to 70.0%
D	<70.0% to 60.0%
F	<60.0% to 0.0%

As a student enrolled in this course, one of your responsibilities is to submit course work by the due dates listed in Canvas. With that said, I take my role as your instructor very seriously, and, in fact, I care about how well you do in this course and that you have a satisfying, rewarding experience.

To that end, it is my commitment to you to respond individually to the work you submit in this class and to return your work in a timely manner. Smaller, weekly assignments and quizzes will be returned within 5 (week) days and major assignments, exams, and essays will be returned within 10 (week) days. (If, however, due to unforeseeable circumstances, the grading of your work takes longer than the times I have listed here, I will keep you informed of my progress and make every effort to return your work with feedback as soon as I can.)

Keep a copy of all work created for the course, including work submitted through Canvas course learning management system.

CANVAS INFORMATION & TECHNICAL SUPPORT

Canvas is where course content, grades, and communication will reside for this course.

- [Login for Canvas](#)
- [Canvas Support](#)



For passwords or any other computer-related technical support, contact the [Central IT Technical Support Help Desk](#) by calling (970) 491-7276 or emailing help@colostate.edu.

The [Technical Support and Requirements](#) page identifies the browsers, operating systems, and plugins that work best with Canvas. If you are new to Canvas, review the [CSU Passport to Canvas](#) course.

ACADEMIC INTEGRITY & CSU HONOR PLEDGE

This course will adhere to the CSU [Academic Integrity/Misconduct](#) policy as found in the [General Catalog](#) and the [Student Conduct Code](#).

Academic integrity lies at the core of our common goal: to create an intellectually honest and rigorous community. Because academic integrity, and the personal and social integrity of which academic integrity is an integral part, is so central to our mission as students, teachers, scholars, and citizens, I will ask that you affirm the CSU Honor Pledge as part of completing your work in this course.

Further information about Academic Integrity is available at CSU's [Academic Integrity - Student Resources](#).

UNIVERSAL DESIGN FOR LEARNING/ACCOMMODATION OF NEEDS

I am committed to the principle of universal learning. This means that our classroom, our virtual spaces, our practices, and our interactions be as inclusive as possible. Mutual respect, civility, and the ability to listen and observe others carefully are crucial to universal learning.

If you are a student who will need accommodations in this class, please contact me to discuss your individual needs. Any accommodation must be discussed in a timely manner. A verifying memo from the [Student Disability Center](#) (SDC) may be required before any accommodation is provided.

The SDC has the authority to verify and confirm the eligibility of students with disabilities for the majority of accommodations. While some accommodations may be provided by other departments, a student is not automatically eligible for those accommodations unless their disability can be verified and the need for the accommodation confirmed, either through SDC or through acceptable means defined by the particular department. Faculty and staff may consult with the SDC staff whenever there is doubt as to the appropriateness of an accommodative request by a student with a disability.



The goal of SDC is to normalize disability as part of the culture of diversity at Colorado State University. The characteristic of having a disability simply provides the basis of the support that is available to students. The goal is to ensure students with disabilities have the opportunity to be as successful as they have the capability to be.

Support and services are offered to student with functional limitations due to visual, hearing, learning, or mobility disabilities as well as to students who have specific physical or mental health conditions due to epilepsy, diabetes, asthma, AIDS, psychiatric diagnoses, etc. Students who are temporarily disabled are also eligible for support and assistance.

Any student who is enrolled at CSU, and who self-identifies with SDC as having a disability, is eligible for support from SDC. Specific accommodations are determined individually for each student and must be supported by appropriate documentation and/or evaluation of needs consistent with a particular type of disability. SDC reserves the right to ask for any appropriate documentation of disability in order to determine a student's eligibility for accommodations as well as in support for specific accommodative requests. The accommodative process begins once a student meets with an accommodations specialist in the SDC.

THIRD-PARTY TOOLS/PRIVACY

Please note that this course may require you to use third-party tools (tools outside of the Canvas learning management system), such as Skype and others. Some of these tools may collect and share information about their users. Because your privacy is important, you are encouraged to consult the privacy policies for any third-party tools in this course so that you are aware of how your personal information is collected, used, and shared.

UNDOCUMENTED STUDENT SUPPORT

Any CSU student who faces challenges or hardships due to their legal status in the United States and believes that it may impact their academic performance in this course is encouraged to visit [Student Support Services for Undocumented, DACA & ASSET](#) for resources and support. Additionally, only if you feel comfortable, please notify your professor so they may pass along any additional resources they may possess.

TITLE IX/INTERPERSONAL VIOLENCE

For the full statement regarding role and responsibilities about reporting harassment, sexual harassment, sexual misconduct, domestic violence, dating violence, stalking, and the retaliation policy, visit [CSU Policy: Title IX Sexual Harassment](#).



If you feel that your rights have been compromised at CSU, several resources are available to assist:

- [Student Resolution Center](#), 200 Lory Student Center, (970) 491-7165
- [Office of Equal Opportunity](#), Student Services Building, Room 101, (970) 491-5836

A note about interpersonal violence: If you or someone you know has experienced sexual assault, relationship violence and/or stalking, know that you are not alone. As instructors, we are required by law to notify university officials about disclosures related to interpersonal violence. Confidential victim advocates are available 24 hours a day, 365 days a year to provide support related to the emotional, physical, physiological, and legal aftermath of interpersonal violence. Contact the [Victim Assistance Team](#) at 970-492-4242.

RELIGIOUS OBSERVANCES

CSU does not discriminate on the basis of religion. Reasonable accommodation should be made to allow individuals to observe their established religious holidays. Students seeking an exemption from attending class or completing assigned course work for a religious holiday will need to complete the [Request Form](#) at least one full week prior to the event.

Once turned in, the Division of Student Affairs will review the request and contact the student accordingly. If approved, the student will receive a memo from the Dean of Students to give to their professor or course instructor.

Students are asked to turn in the request forms as soon as the conflict is noticed. Similarly, unanticipated conflicts requiring a religious observance, such as a death in the family, can also be reviewed.

CSU PRINCIPLES OF COMMUNITY

Inclusion: We create and nurture inclusive environments and welcome, value and affirm all members of our community, including their various identities, skills, ideas, talents, and contributions.

Integrity: We are accountable for our actions and will act ethically and honestly in all our interactions.

Respect: We honor the inherent dignity of all people within an environment where we are committed to freedom of expression, critical discourse, and the advancement of knowledge.



Service: We are responsible, individually and collectively, to give of our time, talents, and resources to promote the well-being of each other and the development of our local, regional, and global communities.

Social Justice: We have the right to be treated and the responsibility to treat others with fairness and equity, the duty to challenge prejudice, and to uphold the laws, policies and procedures that promote justice in all respects.

DIVERSITY AND INCLUSION

The [Office of Inclusive Excellence](#) website includes a comprehensive statement of CSU's commitment to diversity and inclusion.