

SOCR350

Soil Fertility Management

Is attendance required?

Only if you want a good grade in class! It is very difficult to receive an A or B without coming to class. The class meets MWF, 9:00-9:50am, Clark C146.

Do I need to buy the textbook?

The textbook, Soil Fertility and Fertilizers by John Havlin et al., is not required. A copy is available via Dr. Ippolito. Reading the textbook will greatly benefit your understanding of the material; this book is a terrific reference for those of you who will be making future soil fertility decisions.

How should I prepare for class?

Download PowerPoint presentations and course notes from Canvas prior to lecture.

Do assigned readings.

Review notes from previous lectures, and come to class ready to ask questions.

Who is the professor?

Dr. Jim Ippolito (BS in Agronomy from the University of Delaware - 1989, MS and PhD in Environmental Soil Quality from Colorado State University – 1992, 2001) is your professor. He was an assistant professor at CSU from 2002 through 2007, a USDA – Agricultural Research Service Soil Scientist from 2007 through 2016, and is now back at CSU as an Associate Professor of environmental soil quality/fertility. He will draw on his Colorado, western US, and global experiences to provide examples for class.

How do I reach the professor?

The best way to reach me is via email (jim.ippolito@colostate.edu). You can also leave a message at (970)491-8028.

When are office hours?

Office: C113 of the Plant Sciences Bldg.

Hours Arranged - my schedule is flexible. You can drop in at any time, email, or talk to me to make an appointment.

If I am not in my office, I may be in my lab, W103 in the Plant Sciences Bldg.

What are the basic rules of the class?

Come to class.

Be respectful of your classmates (and professor).

Late work will be marked down by 10%/day late. Don't cheat.

No phone usage during exams. You will need at least a basic calculator for the exams.

If you miss an exam without making prior arrangements with the professor, there will be no makeup exam provided.

Give it your best, and you will get a lot out of it.

If you need help, ask!

What are the general topics of the class?

Unit 1: Introduction

Unit 2: Soil Plant Relationships

Unit 3 CEC & Base Saturation

Unit 4 Soil Acidity & Alkalinity

Unit 5 A, B, C: Nitrogen

Unit 6: Phosphorus

Unit 7: Potassium

Unit 8: Salinity and Sodicty

Unit 9: Fe and Zn

Unit 10: Cu and Mn

Unit 11: B, Cl, Mo

Unit 12: Toxicities

Unit 13: (Bonus) Other Macroelements: Mg, Ca, S

What are the professor's goals for the students?

Recognize nutrient deficiencies/toxicities

Interpret soil and plant tissue testing results

Understand nutrient cycles and apply that knowledge to real-world decisions

Incorporate economic and environmental constraints into soil fertility decision-making



How will I be evaluated?

There will be four exams, each worth 100 points.

Monday, September 24, 2018 from 9:00—9:50 am

- (Units 1, 2, 3, 4)

Monday, October 22, 2018 from 9:00—9:50 am

- (Unit 5 A, B, C)

Friday, November 16, 2018 from 9:00—9:50 am

- (Units 6, 7, 8)

Thursday, December 13, 2018 from 4:10—6:10 pm

- (Remainder of Units; no comprehensive final)

Mark your calendars – Exam schedule may be altered slightly depending on how inquisitive you are throughout the semester.

How should I prepare for exams?

In each unit, you will be provided a list of learning objectives. Test yourself on those objectives. The exams are written directly from the learning objectives. Exams include short answer, multiple choice, fill-in-the-blank questions, and calculations.

Are tests the only way I'll be evaluated?

No. The exams only make up 400 out of the 700 total points for the class. There will also be:

8 online quizzes for 25 points each (200 total points)—there is a quiz at the end of each of Units 1-8, and the due date will be announced in class and through Canvas.

10 Soils of the Week assignments for 10 points each (100 total points)—due dates will be announced in class and through Canvas, and assignments are turned in via email or in class.

Principles of Community

In this course we strive to follow and extend Colorado State's University's Principles of Community, and welcome spirited discussion, lively debate and pursuit of knowledge in a manner that respects each of us as individuals.

The Principles of Community support the Colorado State University mission and vision of access, research, teaching, service and engagement. A collaborative and vibrant community is a foundation for learning, critical inquiry, and discovery. Therefore, each member of the CSU community has a responsibility to uphold these principles when engaging with one another and acting on behalf of the University.

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.

Need Help? Rams Take Care of Rams

Reach out and ask for help if you or someone you know is having a difficult time. Always feel free to come and talk to me; I will always make myself available to help connect you with any resources you need. CSU is a community that cares for you. If you are struggling with drugs or alcohol and/or experiencing depression, anxiety, overwhelming stress or thoughts of hurting yourself or others please know there is help available. Counseling Services has trained professionals who can help. Contact 970-491-6053 or go to <http://health.colostate.edu>. If you are concerned about a friend or peer, tell someone by calling 970-491-1350 (or visit <http://safety.colostate.edu/tell-someone.aspx>) to discuss your concerns with a professional who can discreetly connect the distressed individual with the proper resources. Rams take care of Rams.

This course will adhere to the Academic Integrity Policy {Section 1.6} of the Colorado State University General Catalog, the Student Conduct Code, and University Principles of Community.

Please refer to The University Principles of Community found on page 9 of this syllabus.

Please refer to our cheating and plagiarism policy found on the Canvas homepage and page ___ of this syllabus.

Student Conduct Code:

<http://www.conflictresolution.colostate.edu/conduct-code.aspx#conduct>

Colorado State University
General Catalog:

<http://www.catalog.colostate.edu/>

Classroom Etiquette

No animals are allowed in the classroom except those defined in the CSU policy regarding SERVICE animals. No emotional support animals are allowed in class.

Please silence your phone and other electronic devices during class.

Please be courteous while in class. It can be difficult to hear in a large classroom and even quiet talking can be very disruptive to other students who are trying to listen.

Please do not read newspapers, text, play games, or listen to music during class. It may not impact your learning experience, but it is distracting to others in the room.

Library Help:

Renaee Watson is the librarian supporting this course. Contact her for assistance at renaee.watson@colostate.edu / ph. 970-491-5338. See her research guide at libguides.colostate.edu/agriculture. Additionally, the CSU Libraries Help Desk provides both research (ph. 970-491-1841) and technical (ph. 970-491-7276) support. These services are free for all CSU students and can be extremely helpful as you prepare your final project.

Title IX: Sexual Assault, Sexual Violence, Sexual Harassment:

CSU's Discrimination, Harassment, Sexual Harassment, Sexual Misconduct, Domestic Violence, Dating Violence, Stalking, and Retaliation policy designates faculty and employees of the University as "Responsible Employees." This designation is consistent with federal law and guidance, and requires faculty to report information regarding students who may have experienced any form of sexual harassment, sexual misconduct, relationship violence, stalking or retaliation. This includes information shared with faculty in person, electronic communications or in class assignments. As "Responsible Employees," faculty may refer students to campus resources (see below), together with informing the Office of Support and Safety Assessment to help ensure student safety and welfare. Information regarding sexual harassment, sexual misconduct, relationship violence, stalking and retaliation is treated with the greatest degree of confidentiality possible while also ensuring student and campus safety.

Any student who may be the victim of sexual harassment, sexual misconduct, relationship violence, stalking or retaliation is encouraged to report to CSU through one or more of the following resources:

-Emergency Response 911

-Deputy Title IX Coordinator/Office of Support and Safety Assessment (970) 491-1350

-Colorado State University Police Department (non-emergency) (970) 491-6425

Please Visit: <http://oeo.colostate.edu/title-ix-sexual-assault> for more information.

Plagiarism and Academic Integrity

We take the issue of academic integrity very seriously in this course. You are expected to do your own work and to not access notes or the web during an exam, copy from someone else's exam or to provide exam answers to another student during an exam. We reserve the right to proctor all exams and will take actions to ensure that all students are following this policy.

Plagiarism

"Plagiarism includes the copying of language, structure, ideas, or thoughts of another, and representing them as one's own without proper acknowledgment. Examples include a submission of purchased research papers as one's own work; paraphrasing and/or quoting material without properly documenting the source" (CSU Policies and Guiding Principles, 2017-2018).

Our motivation for rigorously enforcing a no-plagiarism policy is twofold: First, plagiarism is a form of theft. Taking someone else's words or ideas without attribution is stealing someone else's work. Second, copying someone else's work does not fulfill the purpose of the assignment, which is for you to develop critical thinking and analysis skills. You demonstrate this by presenting your own, new, synthesis and analysis in your writing. Simply copying or paraphrasing from source materials does not demonstrate this, however insightful the source(s) may be. Good writing generates new knowledge. This should be your goal in this class, in other courses at CSU and in your career after you leave here.

In this course all written exam work will be spot checked for plagiarism issues by the instructor and originality checking software such as VeriCite. If you are caught plagiarizing materials you will receive a 0 for the exam, and depending upon the severity of the offense, an F in the course. All examples of plagiarism or academic dishonesty and will be reported to the Office of Conflict Resolution and Student Conduct Services for additional disciplinary action as outlined in the student handbook under the heading "academic integrity/Misconduct" (<http://catalog.colostate.edu/general-catalog/policies/students-responsibilities/>).

Canvas Email System Utilization

Using the University's systems or networks for personal gain; for example, by selling access to your eID or to university systems or networks, or by performing work for profit with university resources (e.g. selling your notes or promoting a personal agenda) in a manner not authorized by the University is strictly forbidden within the CSU Code of Conduct and also CSU's policy for Acceptable Use for Computing and Networking Resources. All cases of this type of code violation will be reported to the Office of Conflict Resolution and Case Management and dealt with following CSU legal counsel guidance.