

# AG-17 Introduction to Soil Science Syllabus

## Course Information

Semester & Year: Spring 2026

Course ID & Section #: AG-17-E9869

Instructor's name: Alissa Sarvinski

Course units: 3

## Instructor Contact Information

Office Location: HU-Rm 123

Office Hours are MW 12pm-1:30pm

Phone Number: NA

Email Address: [Alissa-sarvinski@redwoods.edu](mailto:Alissa-sarvinski@redwoods.edu)

Course Meets- Tues and Thurs 9am-11:30am in AT 108

## Required Materials

1. Writing Utensil
2. Binder or folder to collect lab materials and handouts
3. No textbook is required for this course

## Catalog Description

The study of soil physical, chemical and biological properties. Soil classification, derivation, use, function and management including erosion, moisture retention, structure, cultivation, organic matter and microbiology. Laboratory topics include soil type, classification, soil reaction, soil fertility and physical properties of soil. Laboratory required.

## Course Student Learning Outcomes

- (LAB) Analyze a soil's water holding capacity, water available to plants, properties/movement of water in soil.
- (LAB) Demonstrate and determine soil physical properties.
- (LEC) Discuss and understand the importance of essential plant nutrients.
- (LEC) Evaluate parent rocks and other soil forming processes influences on local and global soils.

## Prerequisites/co-requisites/ recommended preparation

Because this course carries with it CSU equivalent transfer units, students must be able to meet college-level reading and writing standards to complete this course. Successful completion of English 1A means that students have attained college-level reading and writing skills. Moreover, the course requires essay exams, papers, and readings that students lacking those skills will most likely be unable to complete. Lastly, program review data indicate that students who have not met the recommendation have less than a 55% chance to earn a "C" or better in the course.

**Course delivery:** This course is delivered in person and all assignments and activities will be posted on Canvas.

**Student Commitment:** As a three unit course, students should expect to spend roughly nine hours per week on the course. This time will consist of course content in person, readings, presentations, writing assignments and quizzes.

## Late Assignments

Late assignments will not be accepted unless you reach out to me with an understandable reason as to why you cannot turn in an assignment on time.

## Course Schedule

Lectures	Week	Topics	Assignments
Lectures 1 and 2	1/20-1/23	Syllabus Review, Importance of Soil, Soil Origin and Development, Mineral Lab	In class participation, readings
Lectures 3 and 4	1/26-1/30	Soil Classification, Physical Properties of Soil Lab	In class participation, readings
Lectures 5 and 6	2/2-2/6	Soil Taxonomy/Soil Capability class, Web Soil Survey labs	In class participation, readings
Lectures 7 and 8	2/9-2/13	Soil Water, Water Conservation, Irrigation, Soil Percolation lab	In class participation, readings, quiz
Lectures 9 and 10	2/16-2/20	Soil Fertility, Soil macronutrient lab	In class participation, readings, current event due
Lectures 11 and 12	2/23-2/27	Soil pH and Salinity, BRIX lab	In class participation, readings
Lectures 13 and 14	3/2-3/6	Plant Nutrition, Cover Crop, Crop Rotation	In class participation, readings, quiz
Lectures 15 and 16	3/9-3/13	Soil Sampling and Testing, Shively Farm Field Trip	In class participation, readings, Issues presentation due
	3/16-3/20	Spring Break-no class	
Lectures 17 and 18	3/23-3/27	Fertilizers, Manure Management, Dairy Field Trip	In class participation, readings
Lectures 19 and 20	3/30-4/3	NO class 3/31, Organic Production	In class participation, readings, quiz
Lectures 21 and 22	4/6-4/10	Tillage and Cropping Systems	In class participation, readings
Lectures 23 and 24	4/13-4/17	Life in the Soil, Soil microbiology lab	In class participation, readings
Lectures 25 and 26	4/20-4/24	California Soils, Geology and Agriculture	In class participation, readings, quiz
Lectures 27 and 28	4/27-5/1	Urban Soils, Farm Field Trip	In class participation, readings
Lectures 29 and 30	5/4-5/8	Government Agencies and Programs, Soil Taxonomy Presentations	In class participation, readings
<b>5/11-5/15</b>		<b>Finals Week</b>	<b>Comprehensive Final</b>

\*\*note this is a tentative schedule and it is subject to change

### Issues in Soil Science or Soil Taxonomy Presentation

During the semester we will begin to work on individual issues in soil science. More information will be made available on Canvas and in person. You will be presenting periodically throughout the semester.

### Lab Participation and Reports

Throughout the semester we will have a series of mini labs and larger lab activities. You will choose one lab to do a complete lab write up and report. More information will be made available on Canvas and in person.

### Current Event in Soil Science

This assignment is a profile of a current event surrounding soil science. Information will be made available on Canvas and in person for this assignment.

## Evaluation & Grading Policy

### Final Grade Calculations

Grade Breakdown:	Points	Percentage of Grade
In class discussion and participation – 15 weeks @ 10 Points Each Week	150	20%
Quizzes - 3 @ 40 Points Each	120	16%
Issues in Soil Science or Soil Taxonomy Presentation	140	18%
Current Event in Soil Science	50	7%
Lab Participation and Reports	150	20%
Final Exam	150	20%
<b>Total Points Possible</b>	<b>760</b>	

### Final

The final for the course will be administered during finals week. The final will be comprehensive and accounts for 20% of your grade. One attempt is allowed for the final.

### Academic Integrity

In the academic community, the high value placed on truth implies a corresponding intolerance of scholastic dishonesty. In cases involving academic integrity, determination of the grade and of the student's status in the course is left primarily to the discretion of the faculty member. In such cases, where the instructor determines that a student has demonstrated a lack of academic integrity, the student may receive a failing grade for the assignment and/or exam and may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct ([AP 5500](#)) is available on the College of the Redwoods website. Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the [2025-2026 College Catalog](#) and [CR Board and Administrative Policies](#).

### AI Policy

Recent advancements in generative artificial intelligence (AI) have made large language models such as ChatGPT and Google's Bard widely available. Sometimes, using these tools appropriately can help us overcome barriers and allow us to focus on deeper learning. However, overuse of these tools can undermine the development of our critical and creative thinking skills. In addition, AI outputs are often unreliable and frequently subject to bias. For these reasons, it is sometimes appropriate and sometimes inappropriate to use generative AI in the completion of assignments or in discussion posts. For this class, please see the specific assignment instructions for guidance on how and when generative AI tools may be used appropriately as we're working on and learning from a particular assignment. Also, please keep in mind that you are responsible for anything you submit; please carefully review all AI-generated outputs, screening them for accuracy, bias, appropriateness, and fidelity to your perspective.

### Disruptive Behavior

Student behavior or speech that disrupts the instructional setting will not be tolerated. Disruptive conduct may include, but is not limited to: unwarranted interruptions; failure to adhere to instructor's directions; vulgar or obscene language; slurs or other forms of intimidation; and physically or verbally abusive behavior. In such cases where the instructor determines that a student has disrupted the educational process, a disruptive student may be temporarily removed from class. In addition, the student may be reported to the Chief Student Services Officer or designee. Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the [2025-2026 College Catalog](#) and [CR Board and Administrative Policies](#).

## Inclusive Language in the Classroom

College of the Redwoods aspires to create a learning environment in which all people feel comfortable in contributing their perspectives to classroom discussions. It therefore encourages instructors and students to use language that is inclusive and respectful.

## Educational Accessibility and Support

College of the Redwoods is committed to providing reasonable accommodation for qualified students who could benefit from additional educational support and services. You may qualify if you have a physical, mental, sensory, or intellectual condition which causes you to struggle academically, including but not limited to:

- Mental health conditions such as depression, anxiety, PTSD, or bipolar disorder
- Common ailments such as arthritis, asthma, diabetes, autoimmune disorders, and diseases
- Temporary impairments such as a broken bone, recovery from significant surgery, or a pregnancy-related disability
- Neurodevelopmental disorders such as a learning disability, intellectual disability, autism, acquired brain injury, or ADHD
- Vision, hearing, or mobility conditions

Available services include extended test time, quiet testing environments, academic assistance and tutoring through the [LIGHT Center](#), counseling and advising, alternate formats of course materials (e.g., audio books, braille, E-texts), assistive technology, learning disability assessments, approval for personal attendants, interpreters, priority registration, on-campus transportation, adaptive physical education and living skills courses, and more. If you believe you might benefit from disability- or health-related services and accommodations, please contact [Student Accessibility Support Services \(SASS\)](#). If you are unsure whether you qualify, please contact Student Accessibility Support Services (SASS) for a consultation: [sass@redwoods.edu](mailto:sass@redwoods.edu).

## SASS office locations and phone numbers

### Eureka campus

- Phone: 707-476-4280
- Location: Learning Resource Center (Library)

### Del Norte campus

- Phone: 707-465-2353
- Location: main building, near the Library

### Klamath-Trinity campus

- Phone: 707-476-4280