



## General Course Syllabus

**Course Name** Soil: A Natural and Societal Resource

**Course Number** SOIL 511

**Term/Quarter Credits** 3

### Course Co-Developers/Instructors

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### Course Location

Ecampus online program. Oregon State University (**OSU**); Corvallis, OR

### Course Description

Serves degree- and non-degree-seeking graduate learners wanting soil science knowledge but having minimal science background. Understanding soil physical, chemical, and biological properties promotes informed soil management and supports personal to global societal values. Curriculum facilitates graduate degrees or certificates, continuing education/licensure renewal requirements (**CEUs**), professional development units (**PDUs**) for K-12 and college science teachers, and self-improvement goals of natural resource organization members or private individuals.

### Prerequisite

Graduate standing: a 4-year undergraduate degree from an accredited institution. Applies to degree- and non-degree-seeking learners.

### Course Credits

This 3-credit term/quarter, 11-week course comprises 90 hours of online instruction. There is no Lab component.

### Communication

Post all course-related questions in the *Learner General Discussion Forum*. Classmates will benefit from *Questions, Answers, Observations...and More* information placed there. For matters of a personal nature (e.g., excused absences), email your instructor(s) who will reply within 24 to 48 hours. Instructors usually grade/return assignments within three days after due dates.

### Technical Assistance

Several options exist if you experience computer difficulties, need help downloading a browser or plug-in, require assistance logging into the course, experience problems in navigating your online course, or seek free software. They are: call (541) 737-3474, email [osuhelpdesk@oregonstate.edu](mailto:osuhelpdesk@oregonstate.edu), or submit a Support Request to the [OSU IS Helpdesk](#).

## Learning Resources

No text is required; most learning resources are purposely *Open Source*. Course non-technical and technical readings, videos, narrated slide shows, and assignments provide practical information about how soil management influences world food production, fosters sustainable production of agricultural and forest crops, provides clean water, allows proper waste disposal, and aids water recycling. Learners 1) identify activities that positively or negatively impact soils in natural and disturbed environments and 2) assess effects of these impacts on societal goals. High-speed Internet access and connectivity are required as is a digital device with built-in camera and microphone. Two optional texts can serve as bookshelf references.

## Canvas

Learner-learner, instructor-learner, and learner-course material interactions occur in a *Canvas* Learning Management System (**LMS**) online teaching platform. Here, you interact with classmates and your instructor(s), access class instructional materials, and use built-in video software to optionally submit some assignments and/or contact classmates and instructor(s). To see how an online Canvas course works, visit the [Ecampus Course Demo](#). For technical assistance, visit [Ecampus Technical Help](#) or search the Student *Guides* in the course's *Canvas Help* option.

## Measurable Student Course Learning Outcomes (CLOs)

1. *Differentiate specific soil biological, chemical, and physical properties* that influence production and supply of food, fiber, and fuel crops;
2. *Quantify global extent of soil and water resources* critical for producing food and fiber crops;
3. *Relate dynamic soil physical-chemical-biological relationships to environmental quality of water, air, and other resources* affecting long-term sustainability of human and natural systems;
4. *Appraise basic and essential soil/plant relationships* that affect agricultural crop production, forest productivity, and environmental quality;
5. *Evaluate effects of natural- and human-induced soil degradation vs. conservation technologies* on food, fiber, and fuel crop production;
6. *Contrast the complementary role of soils and other natural resources in sustaining human, plant, and animal life* and in achieving multi-level societal values; and
7. *Use critical thinking to analyze and synthesize information* from weekly readings, Discussion Forums, and Technical (Tech) Papers into a 5- to 7-page Case Study for a particular "Soils Problem" or "Soils Topic" selected by each learner. **The Case Study replaces a Final Exam.**

## Course Content

Week 1 Course Rationale, Format, and Topics...*What is soil to you?*

Week 2 Finding, Using, and Interpreting Soil Survey Information

Week 3 Soil Physical Properties

Week 4 Soil Water and *The Hydrologic Cycle*

Week 5 Soil Temperature

Week 6 Soil Chemical Properties

Week 7 Soil and Plant Testing: Indices of Nutrient Availability

Week 8 Soil Biological Properties

Week 9 Soil Formation, Degradation, Removal, and Improvement

Week 10 Soil Classification and Soil Taxonomy: Grouping Similar Soils

Week 11 Wrap-up; Instructor Grades for and Student Peer Reviews of Final Case Studies

## Evaluation of Student Performance

### Grading Policy and Structure

**A** ≥ 450 points **B** 400-449 points **C** 350-399 points **D** 300-349 points **F** <300 points

### Grade Components

Start Here Sections + Detailed Syllabus Quiz	20 points
Participate in weekly online learner-learner and instructor-learner Discussion Forums	
A- Class topic Mid-week Check-ins; 5 points/week	50 points
B- Formal Peer Review of one classmate's Mid-week Check-in; 5 points/week	50 points
C- Technical (Tech) Papers: relate weekly topics to one's Case Study; 10 points/week [No Tech Papers in Weeks 5 and 7]	80 points
Complete five practical Problem Sets; 20 points each	100 points
Complete a Mid-term, open-book, Team Problem-Solving Essay Exam (end of Week 5)	50 points
Submit a 5- to 7-page integrated Soil Case Study Draft Outline (end of Week 7)	30 points
Use <i>critical thinking</i> to prepare a 5- to 7-page FINAL Case Study (end of Week 10) [Integrating weekly Tech Papers + assignments = Case Study = <b>No Final Exam</b> ]	
A- Instructor reviews Case Studies for synthesis, integration, and completeness	100 points
B- Student Peer Reviews of Case Studies for two classmates (Tuesday, Week 11)	<u>20 points</u>
<b>Grand Total</b>	<b>500 points</b>

## Discussion Participation

Most online courses are flexible. **But SOIL 511 is not a self-paced course!** All learners participate in weekly Forum Discussions to fulfill stated CLOs. Essential are Check-ins of weekly topics by Midnight, Wednesdays. Post other assignments by Midnight, Sundays.

## Expectations of Student Conduct

Student conduct is governed by university policies explained in the [Student Conduct Code](#) [PDF]. Students should conduct themselves in the course (e.g., on discussion boards, email postings) following university regulations regarding civility. Section 5.11.9 of the Student Code explains that "Academic Misconduct" is a significant offense that can include "...the full range of College Officer sanctioning authority from...a grade penalty up to 'F-grade' and other sanctions including suspension or expulsion from Oregon State University." Visit [Student Conduct & Community Standards \(SCCS\)](#) or call the office of Student Conduct and Mediation at 541-737-3656.

## Incompletes

An Incomplete ("I") grade is granted only in emergency cases (usually death in a family, major illness or injury, or birth of a student's child), and if a learner has completed ≥80% of all course points possible. If you have or expect a situation that precludes completing coursework, do not wait until the term ends. Instead, contact your Instructor immediately!

## Students with Disabilities

"Accommodations for students with disabilities are determined and approved by [Disability Access Services \(DAS\)](#). If you, as a student, believe you are eligible for accommodations but have not obtained approval, please contact DAS immediately at 541-737-4098 or at <http://ds.oregonstate.edu>. DAS notifies students and faculty members of approved academic accommodations and coordinates implementation of those accommodations. While not required, students and faculty members are encouraged to discuss details of the implementation of individual accommodations."

## Course Material Accessibility

Course materials are accessible. If you require accommodations, contact [DAS](#). A [vendor statement](#) certifies how the Canvas LMS platform is accessible.

## **Tutoring**

[NetTutor](#) is staffed by experienced and monitored tutors to provide online tutoring and learner support services. Students connect to live tutors from any device with Internet access to work on problems in real time. Tutors critique/return essays and projects within 24 to 48 hrs.

## **Basic Needs Statement**

Students can contact the [Human Services Resource Center \(HSRC\)](#) for support ([hsrc@oregonstate.edu](mailto:hsrc@oregonstate.edu)), 541-737-3747) if having difficulty affording groceries or accessing sufficient food to eat every day, lacking a safe and stable place to live, and believing these conditions affect his/her course performance.. The HSRC has a [food pantry](#), a [textbook lending program](#), and other resources to help. Please notify Instructors to seek additional assistance.

## **Reach Out for Success:**

"University students encounter setbacks from time to time. If you encounter difficulties and need assistance, it's important to reach out. Consider discussing the situation with an instructor or academic advisor. Contact [oregonstate.edu/ReachOut](http://oregonstate.edu/ReachOut) to find resources for wellness and academic success. If you are in immediate crisis, please contact the Crisis Text Line by texting OREGON to 741-741 or call the National Suicide Prevention Lifeline at 1-800-273-TALK (8255)."

## **Religious Holidays**

OSU strives to respect all religious practices. If you have religious holidays that conflict with any class requirements, especially assignment deadlines, please contact your instructor(s) immediately to make alternative arrangements.

## **OSU Student Evaluation of Teaching**

Course evaluations are extremely important; they help improve this course and learning experiences for future students. Near the end of each term, usually during Week 11, the OSU *Office of Academic Programs and Assessment (APA)* will send you instructions via ONID/MyOSU about how to answer the SOIL 511 [eSet online questionnaire](#). Most questions are multiple choice and apply to all OSU courses. Faculty/Instructors can include their own questions to evaluate curriculum and revise course format. Evaluation form results are anonymous and not tabulated until after all grades are posted. Tabulated and anonymous results go directly to Instructors and Department Heads. Student comments include views on overall course suitability plus temperament and availability of individual Instructors or Faculty.