

ARIZONA WESTERN COLLEGE
SYLLABUS

PLS 211 Soils/GE

Credit Hours: 4 Lec 3 Lab 3

PREREQUISITE: None

NOTE: PLS 100 or other 100 level science course recommended

COURSE DESCRIPTION

Fundamental principles of soil science, the origin, nature and classification of soils, the chemical, physical and biological properties in relation to growth and nutrition, and problems of saline soils.

1. COURSE GOAL

This course prepares learners to correlate soil properties with plant growth and make recommendations regarding nutrient availability, crop water requirements and basic soil management.

2. OUTCOMES

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

- 2.1 identify and demonstrate the basic principles of soil-plant relationships.
- 2.2 identify soil constituents, history and formation processes.
- 2.3 identify the nature and significance of soil colloids.
- 2.4 identify the physical properties of soil and the necessary management practices.
- 2.5 describe the significance and economics of soil organic matter.
- 2.6 explain the management schemes of soil water and aeration.
- 2.7 explain the significance of soil microflora in terms of plant growth.

3. AWC GENERAL EDUCATION (GE) CATEGORY & CRITERIA
NATURAL SCIENCES

- How to describe, explain, and predict natural phenomena using scientific, logical, and quantitative reasoning and empirical evidence from observation and experimentation
- The use of experimentation and/or observation to study natural phenomena, using the scientific method
- How to communicate information about the natural world using written, numeric, and/or visual formats; and when possible, how to use computational/simulation programming environments as a method for solving systems and simulating theoretical or experimental data
- How to critically evaluate scientific information, including visual displays and quantitative data
- The importance of examining assumptions about the natural world and the implications those assumptions have for individual and societal decisions

4. METHODS OF INSTRUCTION

- 4.1 Lectures by the professor or invited Speakers
- 4.2 Audio-visual
- 4.3 Laboratory exercises
- 4.4 Field trips
- 4.5 Discussion

5. LEARNING ACTIVITIES

- 5.1 Textbook reading assignments
- 5.2 Participation in class discussions
- 5.3 Lectures, demonstrations, and visual presentations

- 5.4 Written exercises and periodic exams
- 5.5 Field trips
- 5.6 Laboratory notebook, assignments and periodic quizzes

6. EVALUATION

- 6.1 Written exams and quizzes
- 6.2 Class participation
- 6.3 Written assignments
- 6.4 Laboratory notebook, assignments and quizzes

7. STUDENT RESPONSIBILITIES

- 7.1 Under AWC Policy, students are expected to attend every session of class in which they are enrolled.
- 7.2 If a student is unable to attend the course or must drop the course for any reason, it will be the responsibility of the student to withdraw from the course. Students who are not attending as of the 45th day of the course may be withdrawn by the instructor. If the student does not withdraw from the course and fails to complete the requirements of the course, the student will receive a failing grade.
- 7.3 Americans with Disabilities Act Accommodations: Arizona Western College provides academic accommodations to students with disabilities through AccessABILITY Resource Services (ARS). ARS provides reasonable and appropriate accommodations to students who have documented disabilities. It is the responsibility of the student to make the ARS Coordinator aware of the need for accommodations in the classroom prior to the beginning of the semester. Students should follow up with their instructors once the semester begins. To make an appointment call the ARS front desk at (928) 344-7674 or ARS Coordinator at (928) 344-7629, in the College Community Center (3C) building, next to Advising.
- 7.4 Academic Integrity: Any student participating in acts of academic dishonesty—including, but not limited to, copying the work of other students, using unauthorized “crib notes”, plagiarism, stealing tests, or forging an instructor’s signature—will be subject to the procedures and consequences outlined in AWC’s Student Code of Conduct.
- 7.5 Texts and Notebooks: Students are required to obtain the class materials for the course.
- 7.6 Arizona Western College students are expected to attend every class session in which they are enrolled. To comply with Federal Financial Aid regulations (34 CFR 668.21), Arizona Western College (AWC) has established an Attendance Verification process for “No Show” reporting during the first 10 days of each semester.
Students who have enrolled but have never attended class may be issued a “No Show” (NS) grade by the professor or instructor and receive a final grade of “NS” on their official academic record. An NS grade may result in a student losing their federal financial aid.
For online classes, *student attendance in an online class is defined as the following* (FSA Handbook, 2012, 5-90):
 - Submitting an academic assignment
 - Taking an exam, an interactive tutorial or computer-assisted instruction
 - Attending a study group that is assigned by the school
 - Participating in an online discussion about academic matters
 - Initiating contact with a faculty member to ask a question about the academic subject studied in the course