

ARIZONA WESTERN COLLEGE
SYLLABUS

PLS 230 BASIC SOIL FERTILITY

Credit Hours: 3 Lec

PREREQUISITE: None

COURSE DESCRIPTION

An introduction to plant fertility, including fertilizer interactions with soil, water, and general conditions found in crop production, as well as forms of fertilizer, availability, and functions in plant growth.

1. COURSE GOALS

- 1.1 Understand the interaction of fertilizer forms in the soil solution: availability, the loss and conversion of nutrients and function in plant processes.
- 1.2 Know and understand the application techniques used in production agriculture.
- 1.3 Understand the relationship of soil moisture and fertilizer availability.

2. OUTCOMES

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

- 2.1 differentiate the relationships of fertilizer forms and availability.
- 2.2 describe the interaction of essential nutrients in the plants.
- 2.3 calculate the amount of fertilizer and materials needed for a given crop.
- 2.4 assess the environmental impact of applied fertilizer and its fate in the cropping system, including surface and groundwater.
- 2.5 explain the concept of Best Management Practices for fertilizer recommendations.
- 2.6 describe and assess the impact of cultural practices and fertilizer applications on soil health and structure.
- 2.7 evaluate the integration of new technologies on fertilizer recommendations.

3. METHODS OF INSTRUCTION

- 4.1 Lecture
- 4.2 Group studies

4. LEARNING ACTIVITIES

- 5.1 Homework
- 5.2 Exams
- 5.3 Group presentations

5. EVALUATION

- 6.1 Class participation
- 6.2 Test scores
- 6.3 Oral presentations

6. STUDENT RESPONSIBILITIES

- 6.1 Under AWC Policy, students are expected to attend every session of class in which they are enrolled.
- 6.2 Classroom Assignments: Students are responsible for work missed and for completing all work before the next class meeting. Students are responsible for participating in all oral drills and for taking all exams.
- 6.3 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 Students who are not attending as of the 45th day of the course may be withdrawn by the instructor.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.
- 6.4 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.
- 6.5 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.
- 6.6 Textbooks and materials: Students are required to bring notebook or looseleaf book, pens, pencils, dictionaries, and purchase textbook required for class.
- 6.7 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