

ARIZONA WESTERN COLLEGE
SYLLABUS

PLS 221 Irrigation Calculations and Application

Credit Hours: 3 Lec 3 Lab 1

PREREQUISITE: PLS 220

COURSE DESCRIPTION

To introduce calculations and application of the management and operation of on-farm irrigation systems, including, but not limited to, pressurized systems like micro irrigation and sprinklers, irrigation scheduling, climate monitoring, and chemigation.

1. COURSE GOAL

To develop a basic application of irrigation principles.

2. OUTCOMES

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

- 2.1 Describe soil-plant water relationships
- 2.2 Identify different irrigation methods
- 2.3 Explain the relationship between pressure and flow rate
- 2.4 Identify and calculate irrigation efficiency
- 2.5 Identify and calculate irrigation uniformity
- 2.6 Prepare an irrigation schedule utilizing site-specific information
- 2.7 Identify soil water quality, salinity, and drainage of a sample
- 2.8 Utilize climate monitoring tools and controls to assess irrigation requirements
- 2.9 Explain and perform chemigation techniques
- 2.10 Utilize site-specific information to determine irrigation management requirements

3. METHODS OF INSTRUCTION

- 3.1 Lectures by the professor or invited speakers
- 3.2 Audio-visual
- 3.4 Discussion
- 3.5 Learning modules

4. LEARNING ACTIVITIES

- 4.1 Reading assignments
- 4.2 Participation in learning module class discussions
- 4.3 Lectures, demonstrations, and visual presentations
- 4.4 Written exercises and periodic exams

5. EVALUATION

- 5.1 Written exams and quizzes
- 5.2 Class participation
- 5.4 Written assignments

6. STUDENT RESPONSIBILITIES

- 6.1 Under AWC Policy, students are expected to attend every session of the class in which they are enrolled.
- 6.2 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 Students who are not attending as of the 45th day of the course may be withdrawn by the instructor.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.
- 6.3 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.

- 6.4 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.
- 6.5 Texts and Notebooks: Students are required to obtain the class materials for the course.
- 6.6 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