ARIZONA WESTERN COLLEGE
SYLLABUS

ENV 101 ENVIRONMENTAL SCIENCE/GE
Credit Hours: 4 Lec 3 Lab 2 Rec 1

PREREQUISITE: None

COURSE DESCRIPTION
Introduction to the interrelationships of biological, chemical, and geological cycles and their hazards to urbanized societies, and the impact of modern society on earth's habitats and resources.

1. COURSE GOALS
   - 1.1 Provide an introduction to the scientific method and scientific thinking.
   - 1.2 Introduce students to the ecological relationships between organisms and the environment, and to how the environment functions to influence the patterns of biotic communities.
   - 1.3 Focus attention on the human impacts to the environment and on environmental processes.
   - 1.4 Improve student writing skills is addressed through assigned papers, essay style test questions, and written laboratory assignments.
   - 1.5 Apply simple mathematics and quantitative thinking to environmental processes and problem.
   - 1.6 Apply scientific thinking and quantitative skills will to simple problems of data analysis and interpretation to develop skills for evaluating environmental processes and problems.

2. OUTCOMES
   Upon satisfactory completion of this course, students will be able to:
   - 2.1 describe the nature of science and apply the processes of scientific inquiry to the environment and environmental problems.
   - 2.2 explain the processes that create the Earth's climate.
   - 2.3 describe the distribution of the Earth's major biomes and the factors affecting their distribution.
   - 2.4 explain exponential and logistic population qualitatively, as well as the consequences of population growth arising from these two models.
   - 2.5 discuss the problems associated with human population growth, and how these problems vary in Developed and Developing Nations.
   - 2.6 diagram the key biogeochemical cycles of the Earth, and explain how they influence and interact with living organisms and ecosystem processes.
   - 2.7 identify the major human impacts on the environment, including but not limited to industrialization and agriculture.
   - 2.8 discuss the major patterns and causes of decreases in air and water quality.
   - 2.9 discuss and apply the methodology of risk assessment to evaluate risks associated with physical, chemical, and other types of hazards.
   - 2.10 discuss the major issues in the current debate about global warming and ozone depletion, and apply scientific thinking to the evidence bearing on these issues.
   - 2.11 identify strategies for mitigation of human environmental impacts, including but not limited to, biological agriculture, legislative control of air and water pollution, alternative energies, etc.

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

- The history of scientific development
- How to critically evaluate scientific information, including visual displays and quantitative data
- How the tools and techniques of the natural sciences are applied to global and local issues such as sustainability, climate change, etc.
- The importance of examining assumptions about the natural world and the implications those assumptions have for individual and societal decisions
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4. METHODS OF INSTRUCTION
   - 4.1 Lectures
   - 4.2 Laboratory exercises
   - 4.3 Slide presentations
   - 4.4 Films/videos
   - 4.5 Classroom demonstrations
   - 4.6 Recitation and discussion
   - 4.7 Research project and report
   - 4.8 Internet activities
   - 4.9 Local field trips

5. LEARNING ACTIVITIES
   - 5.1 Assigned reading material
   - 5.2 Lecture and laboratory meetings
   - 5.3 Viewing audio-visual materials, films
   - 5.4 Laboratory activities
   - 5.5 Field trips
   - 5.6 Writing Assignments

6. EVALUATION
   - 6.1 Laboratory exercises
   - 6.2 Quizzes
   - 6.3 Term paper
   - 6.4 Final exam

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