

ARIZONA WESTERN COLLEGE
SYLLABUS

GPH 213 INTRODUCTION TO CLIMATE SCIENCE/GE

Credit Hours: 4 Lec 3 Lab 1

PREREQUISITE: None

COURSE DESCRIPTION

Introduction to climate science covers all aspects of the climate system. It introduces the different components of the climate system, feedback loops, short-term and long term forecasting, planetary energy budget, detail analysis of greenhouse gases, global atmospheric and oceanic circulation patterns, and natural and anthropogenic influences on the climate balance.

1. COURSE GOALS

- 1.1 Evaluate and critique atmospheric and oceanic processes that actively shape the Earth's surface.
- 1.2 Increase awareness of local and global relevancy of atmospheric principles and their impact on human society, especially with regard to climate change.

2. OUTCOMES

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

- 2.1 understand fundamental meteorologic principles.
- 2.2 recognize the impact of climate on human society.
- 2.3 develop scientific hypothesis regarding climate processes and design simple tests to test the hypothesis.
- 2.4 critically analyze scientific data and research as it pertains to global climate change.

3. AWC GENERAL EDUCATION (GE) OUTCOMES3.1 COMMUNICATION

- Write effectively and intelligently for a range of purposes and audiences in the English language (e.g., informing, persuading, advancing an argument, expressing, creating, etc.)

3.2 QUANTITATIVE ANALYSIS

- Select known models or develop appropriate models that organize the data into: tables or spreadsheets (with or without technology); graphical representations (with or without technology); symbolic/equation format

3.3 SCIENTIFIC LITERACY

- Distinguish between a scientific hypothesis and scientific theory
- Describe the scientific method as a process
- Utilize data to communicate and apply an understanding of scientific logic and/or quantitative reasoning
- Analyze an article in popular literature that pertains to science and interpret the findings in terms of public policy, personal experience, or daily life

3.4 CIVIC DISCOURSE

- Include contemporary subject matter.

- Study of a scientific discipline that includes ecological and environmental interrelationships.

4. METHODS OF INSTRUCTION

- 4.1 Tutorials
- 4.2 Laboratory exercises
- 4.4 Audio-visual
- 4.5 Group activities
- 4.6 Homework assignments

5. LEARNING ACTIVITIES

- 5.1 Complete assigned readings
- 5.2 Do hands-on analysis in lab activities
- 5.3 Participate in examinations
- 5.4 Participate in weekly group discussion boards
- 5.5 Complete weekly critical thinking essays

6. EVALUATION

- 6.1 Examinations
- 6.2 Laboratory exercises and critically thinking essays that collectively will comprise a minimum of 500 words
- 6.3 Assignments

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