



DAVIS UNIVERSITY

COURSE SYLLABUS

SSI301: PRINCIPLES OF ENVIRONMENTAL SCIENCE

SUMMER QUARTER 2025

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COURSE SYLLABUS FOR: SSI301 PRINCIPLES OF ENVIRONMENTAL SCIENCE

CREDIT HOURS: 6 CREDITS

INSTRUCTOR:

INSTRUCTOR EMAIL:

INSTRUCTOR OFFICE HOURS:

COURSE DESCRIPTION: In this course, we will study the impact of human activities and human transformation of the natural physical and biological environmental systems of Earth. We will discuss possible solutions to today's environmental issues and problems. Topics include ecology, natural resources, geology, energy, pollution, population growth, urbanization, climatology, and sustainability.

TEXT: Environment: The Science Behind the Stories, 5th ed. Jay Withgott, Matthew Laposata, ISBN:9780321897428, Pearson.

LATE WORK POLICY: All students are expected to submit homework assignments electronically on the date specified on the syllabus. No late homework will be accepted and the student will receive a "0" (zero) for the homework assignment. Should the student refuse to complete the assigned work for the class, it could result in the student failing the class. All work assigned is expected to be completed on the date assigned. The instructor reserves the right to alter the schedule as necessary. Please be sure to check your email/Moodle for any changes to the schedule.

PLAGIARISM AND COPYRIGHT INFRINGEMENT POLICY: Work that is found to be plagiarized receives a grade of zero and often causes a student to fail a class. Documentation of plagiarism is added to the student's academic file as a violation of accepted student conduct and is subject to disciplinary action. Plagiarism is the use of another person's exact words, or their ideas written in the student's words without giving the original author credit.

Plagiarism can result from any of the following:

- Quote material directly without using quotation marks.
- Paraphrase the original so that many of the phrases are the same as the original. A good rule is no more than 3 or 4 words in a row should be the same as the original.
- Copy the original sentence pattern, substitution synonyms for key words.
- Neglect to indicate the source of the original material.

ASSESSMENTS:

Content

Exams	50%
Discussions	20%
Labs	20%
Participation	10%
Total	100%

COURSE GRADE: A = 93%-100%

B = 85%-92%

C = 77%-84%

D = 70%-76%

F = below 70%

TENTATIVE CLASS SCHEDULE:

(Subject to change)

Week	Content Covered	Assignments & Assessment Due
Week 1:	Course introduction The tragedy of the commons; environmental ethics Environmental policies; environmental economics (externalities and the free rider problem); Human population growth; Major stages in human economies (hunter-gatherer, traditional agriculture, industrial agriculture); Lab 1	Test 1- Friday
Week 2:	Soils and sustainability Food, agriculture, and the Green Revolution Biodiversity and conservation Ecosystem services and benefits of biodiversity Reasons for biodiversity loss Lab 2	Test 2- Friday
Week 3:	Forest fragmentation and the design of nature preserves; The fundamentals of chemistry; Environmental toxicology and water pollution; Point-source vs. non-point source pollution; Toxins Lab 3	Test 3- Friday
Week 4:	Bio-magnification. The Atmosphere: structure and processes; Atmospheric pollution; Primary vs. secondary air pollutants; Types of air pollution. Tab 4	Test 4- Friday
Week 5:	Energy and the laws of thermodynamics Fossil fuels and the industrial revolution Global climate change Alternative and renewable energy: solar, wind, hydroelectricity, nuclear, geothermal, and bioenergy Sustainability and the future. Lab 5	Test 5- Friday