

ABET course syllabus (Environmental Engineering)

1. Course number and name
CE 0901572: Environmental Engineering.
2. Credits and contact hours
3 Credit Hours.
3. Instructor's name and contact information
Husam A. Abu Hajar, Assistant Professor of Civil Engineering.
Email: h.abuhajar@ju.edu
Office hours: 10 am – 12 pm (Su, Tu, Th), Civil Engineering Department, 2nd floor.
4. Text book, title, author, and year
 - “Introduction to Environmental Engineering”, Davis& Cornwell, 5th edition, 2008.
 - a. *other supplemental materials*
 - Class notes and handouts.
5. Specific course information
 - a. *brief description of the content of the course (catalog description)*
Environmental systems and sub-systems. Water pollution and water quality parameters. Natural water and wastewater treatment processes. Mass conservation and dissolved oxygen balance in water. Sources, characteristics and impacts of air pollutants. Atmospheric dispersion and air pollution control. Solid waste classification, handling, processing and ultimate disposal. Sources, quantities, and treatment processes of industrial wastewater. Noise pollution and control. Contemporary environmental issues.
 - b. *prerequisites or co-requisites*
CE 0901472 Environmental Engineering Lab(co-requisite).
 - c. *indicate whether a required, elective, or selected elective course in the program*
Elective for Civil Engineering.
6. Specific goals for the course
 - a. *specific outcomes of instruction:*
 - The student is expected to understand and appreciate the role of the environmental engineer.
 - The student is expected to acquire basic knowledge in environmental problems in natural water, groundwater, air, and soil systems and understand the proposed solutions.
 - The student is expected to evaluate the risk associated with exposure to certain chemicals.
 - The student is expected to understand solid waste and hazardous waste management concepts and provide practical solutions.
 - The student is expected to acquire basic knowledge of the environmental laws and regulations in Jordan.
 - The student is expected to familiarize with contemporary environmental issues.

b. Explicitly indicate which of the student outcomes listed in Criterion 3 or any other outcomes are addressed by the course.

Course addresses ABET Student Outcome(s): h & j.

7. Brief list of topics to be covered

- Introduction to environmental engineering.
- Water pollution in natural water systems.
- Risk assessment.
- Solid waste management.
- Hazardous waste management.
- Air pollution.
- Noise pollution.
- Environmental laws and regulations in Jordan.
- Contemporary environmental issues.