



蘇州大學
Soochow University

CEN 260 Introduction to Environmental Engineering

Fall 2023

Course Credits: 4

Contact Hours: 56 hours

Instructor: TBA

Email:TBA

COURSE OBJECTIVES

This course provides students with a comprehensive understanding of the principles and practices involved in environmental engineering. The course covers topics such as water and wastewater treatment, air pollution control, solid waste management, and environmental impact assessment. Students will develop knowledge and skills necessary to address environmental challenges and contribute to sustainable development.

Upon Completion of this Course, students will be able to:

1. Comprehend the the structure and the content of financial statements and financial reports
2. Prepare a balance sheet, analyze financial statements, and make financial decisions
3. Analyze the financial change and prospect of a company
4. Apply quantitative skills to solve business problems and make the best of business opportunities
5. Describe how government policies, consumers and producers have impacts on each other

PREREQUISITES

CHM 113 Principles of Chemistry

GRADING

Grades will be determined by accumulating points, with 100 points being the



maximum, as follows:

ITEM	POINTS
Labs	45 Points
Midterm	25 Points
Final Exam	30 Points
Total	100 Points

Late submissions will be graded at the end of the course. Grades will be assigned according to the following rule:

$$A \geq 90 > B \geq 80 > C \geq 70 > D \geq 60 > F.$$

We reserve the right to make adjustments to the overall grading policy.

COURSE MATERIALS

Required Texts:

1. James R. Mihelcic; Julie B. Zimmerman, *Environmental Engineering: Fundamentals, Sustainability, Design*, Wiley, 3rd Edition, Pearson, 2021.
2. Richard O. Mines and Laura W. Lackey, *Introduction to Environmental Engineering*, 1st Edition, Pearson, 2010.

Recommended (Optional) Texts or Other Materials:

None

COURSE TOPICS

MODULE	TASKS
Module 1	Topics: Topic 1: Environmental Measurements Topic 2: Oxygen Demand: Biochemical, Chemical, and Theoretical Topic 3: Environmental Risk Topic 4: Water: Quantity and Quality Assessments: Lab#1: Oxygen Demand



Module 2	Topics: Topic 5: Eight Water Treatment Topic 6: Sedimentation Topic 7: Wastewater and Stormwater: Collection, Treatment, Resource Recovery Topic 8: Removal and Recovery of Nutrients Assessments: Lab#2: Nutrients in Water
Module 3	Topics: Topic 9: Essential Chemical Concepts Topic 10: Biological And Ecological Concepts Topic 11: Risk Assessment Topic 12: Design And Modeling Of Environmental Systems Assessments: Midterm
Module 4	Topics: Topic 13: Energy Usage during Wastewater Treatment Topic 14: Solid-Waste Management Topic 15: Environmental Engineering as a Profession Topic 16: Introduction to Environmental Engineering Calculations Assessments: Lab#3: Solids
Module 5	Topics: Topic 17: Water Quality And Pollution Topic 18: Water Treatment Topic 19: Air Pollution Topic 20: Fundamentals Of Hazardous Waste Site Remediation Assessments: Final Exam

ATTENDANCE

1) Class attendance is required. Missing classes without permission will lead to decrease in overall grade.

Missing less than two classes: no penalty.

Missing more than two classes: 7% will be taken off from the overall grade.

If the instructor reports a student's frequent missing of class to the Soochow University Academic Administration Office, the student might get a written warning and might be prohibited from attending final exam.



2) Participants in this course are expected to arrive in class promptly and adequately prepared. The primary objective of this course is to critically engage with the readings and the subject matter. Therefore, course participants are expected to have completed the reading prior to class and prepare thoughtful reflections/commentaries to share with fellow colleagues.

LEARNING REQUIREMENTS

- 1) Late assignments are not acceptable and are subjected to grade deductions.
- 2) Assignments submitted in the wrong format will be counted as not submitted.
- 3) Failure to submit or fulfill any required course component results in failure of the class.
- 4) Make-up for midterm and final exams only with valid excuses, as defined by the University.
- 5) In order to earn a Certificate of Completion, participants must thoughtfully complete all assignments by stated deadlines and earn an average quiz score of 50% or greater.

TECHNOLOGY POLICY

The use of electronic devices in class is distracting, both for the user and for the rest of the class. Only non-programmable calculators can be used in the tests and exam. Any attempts to use cell phones and other electronic communication devices will be seemed as cheating. Laptops are discouraged, unless you use them for activities DIRECTLY related to the course (eg., note taking, reading course documents).

ACADEMIC INTEGRITY POLICY

Soochow University highly values the academic integrity and aims to promote the academic fairness, honesty and responsibility. Any academic dishonesty behaviors and any attempts to cheats and plagiarism will be reported to the university administration office. A written warning and the relevant penalties will be imposed. The record might be shown on the official university transcript.

DISABILITY ACCOMMODATION



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Soochow University is committed to maintaining a barrier-free environment so that students with disabilities can fully access programs, courses, services, and activities at Soochow University. Students with disabilities who require accommodations for access to and/or participation in this course are welcome.

Note:

Please contact the University Administrative Office immediately if you have a learning disability, a medical issue, or any other type of problem that prevents professors from seeing you have learned the course material.