

CEE 4300 Syllabus

Environmental Engineering Systems, 3 credits

Fall 2026,

Instructor Information

Instructor: Yongsheng Chen

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General Course Information

Description

This course is designed to introduce the students to the principles of environmental engineering systems. By the end of the course, you should be able to do the following things:

- Remembering and understanding environmental legislation/regulations related to areas of water quality, air quality and solid and hazardous waste management;
- Analyzing and evaluating environmental engineering issues associated with water, air, and land pollution;
- Applying and formulating fundamentals of material balances, mass and energy transfer for various environmental engineering systems such as urban air, drinking water, and ground water.
- Work effectively in problem-solving teams and carry out meaningful performance assessments of individual team members.

Course Learning Outcomes

1. Individual effort assessment for in-class team work presentations: Teams will periodically be asked to work together, however, individual effort assessment with completed assignments is required to submit individual effort assessments.

2. Homework problems: Five homework will be assigned and collected as scheduled. You are encouraged to work in groups, but independent homework solutions must be turned in. If you do work in groups, write the names of the people you worked with in the solution sheet.

3. Exams. There will be two exams during the semester and a comprehensive final exam. All tests will be closed-book and closed notes. Students who are unable to take the test (with a documented excuse—not just that you don't want to) will schedule an alternate time to take the exam.

Required Course Materials

Textbook: Gilbert M. Masters & Wendell P. Ela, *Introduction to Environmental Engineering and Science*, 3rd Edition.

Grading Policy:

If you believe that an error was made in grading the homework, you should write a short justification of your claim and attach it to the original homework assignment in question. Put justification and homework paper (stapled together) and hand it to me after my class or email me or the TA.

The final grade will be calculated as follows:

Assignments

- Five homework assignments will be given, each worth 4 points (4% per assignment) toward the final grade.
- Two midterm exams will be administered during the semester.
- One final exam will be conducted during the final exam week.

Description of Graded Components

Participant and presentation:	10%
Homework problems (5):	20%
Exam 1:	20%
Exam 2:	20%
Final Exam:	30%
<i>Grading Scale:</i> A: 80-100%; B: 70-79%; C: 60-69%, D: 50-60%	

Attendance and/or Participation

Participant and presentation: 10%

Academic Integrity

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. Review [Georgia Tech's Honor Code](#) and the student [Code of Conduct](#).

Any student suspected of cheating or plagiarism on a quiz, exam, or assignment will be reported to the Office of Student Integrity, who will investigate the incident and identify the appropriate penalty for violations.

Core IMPACTS

[Core IMPACTS](#) is the University System of Georgia's General Education curriculum. If you are teaching a course that counts towards Core IMPACTS, you should include a syllabus statement about the Core area and associated [career competencies](#). [This resource](#) developed by the Center for Excellence in Teaching and Learning and Online Education at Georgia State University

includes template syllabus statements for each of the Core IMPACTS areas that you may adapt for your course.

Accommodations for Students with Disabilities

If you are a student with learning needs that require special accommodation, [contact the Office of Disability Services](#) (404-894-2563) as soon as possible to make an appointment to discuss your special needs and to obtain an accommodations letter. Please also e-mail me as soon as possible in order to set up a time to discuss your learning needs.

Student-Faculty Expectations Agreement

At Georgia Tech, we believe that it is important to strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. [The Student-Faculty Expectations](#) articulate some basic expectations that you can have of me and that I have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, I encourage you to remain committed to the ideals of Georgia Tech while in this class.