Department of Civil and Environmental Engineering

Carleton University

ENVE 5205 SLUDGE TREATMENT AND DISPOSAL

Winter 2025

Instructor: Prof. Banu Örmeci
Office: 3438 Mackenzie Building
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Class times: Fridays, 11:35 am – 2:25 pm. Check Carleton Central for class location.
Office Hours: If you would like to meet with me, send me an E-mail for an appointment. I have an open-door policy when I am in the office.
Teaching Assistant: Graduate courses are not assigned teaching assistants so there is no teaching assistant for this course.

Calendar Description

Aspects of sludge treatment, management, and disposal; sludge generation and characterization, thickening, preliminary treatment processes, aerobic and anaerobic digestion, lime stabilization, conditioning, dewatering, composting, land application and other disposal options, and thermal processes.

Lecture Materials

Lecture materials and recordings will be available on Brightspace. Students are not required to purchase course materials or books for this course.

Course Outline

Week	Subject
Topic 1	Review of wastewater and sludge treatment
Topic 2	Sludge sources, quantities, and characteristics
Topic 3	Thickening
Topic 4	Anaerobic digestion
Topic 5	Pretreatment
Topic 6	Aerobic digestion
Topic 7	Lime treatment
Topic 8	Conditioning
Topic 9	Dewatering
Topic 10	Composting
Topic 11	Land application
Topic 12	Thermal processes
Topic 13	Hot topics and current issues

Grading

Assignments	20%
Mid-term examination	35%
Final examination	45%

The average of your mid-term and final exams should be at least 50/100 to pass this course.

Late policy

10% of the grade will be deducted from assignments for every day late. Weekends are included.

Special arrangements

You may need special arrangements to meet your academic obligations during the term. For accommodation information and requests, please see the Academic Accommodations website.

Student Mental Health and Services

As a university student, you may experience a range of mental health challenges that can significantly impact your academic success and overall well-being. Carleton's Wellness Services Navigator is designed to help students connect with mental health and wellness resources. If you need to talk to someone from the department for more information and support with connecting to resources, you can contact Prof. Shoeleh Shams (shoelehshams@cunet.Carleton.ca, Office: 4242 Mackenzie).

Academic Integrity and Plagiarism

Please consult the Faculty of Engineering and Design information page about the Academic Integrity policy and our procedures. Violations of the Academic Integrity Policy will result in the assignment of a penalty such as reduced grades, the assignment of an F in a course, a suspension or, expulsion.