

University of Baghdad
College of Engineering/ Department of Environmental Engineer

EnE306 Solid Wastes Management
Tentative Course Outline 2024-2025

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Lecture schedule: Tuesdays/ Thursdays 1:00 pm to 3:00 pm

Course Description

To develop a through understanding of municipal solid waste management.

This includes understanding of

- Waste sources, composition and potential impacts,
- Collection and transport,
- Recycling and reuse,
- Biological and thermal treatments and isolation.

The goal of this course is to provide students with a broad awareness of the framework of municipal waste management, highlight the relative issues, and provide a selection of technical skills.

In addition, a group project on waste recycling or reduction is an important component of this course.

Grading:

- Class attendance, discussion and participation (6%)
- Project (8%)
- 1st midterm exam (8%)
- 2nd midterm exam (8%)
- Final Exam (70%)

Textbooks:

- Dr. Zainab Kadhim Abdulsada, Lecture Notes for EnE306 Solid Waste Management 2023-2024. Available on Google Classroom prior to lecture.
- George Tchobanoglous, Hilary Theisen, and Samuel A. Vigil, “Integrated Solid Wastes Management, Engineering principles and Management issues” Second Edition 1992

Tentative course schedule:

Week	Date	Lecture	Week	Date	Lecture
1	Oct.10/ 12	Introduction	16	Jan.23/ 25	Mid-term break
2	Oct.17/ 19	Evolution of solid waste management	17	Jan.30/ Feb.1	Materials separation and processing technologies
3	Oct.24/ 26	Source, types and composition of municipal solid waste	18	Feb.6/ 8	Thermal, biological, and chemical conversion technologies
4	Oct.31/ Nov.2	Physical, chemical, and biological properties of municipal solid waste	19	Feb.13/ 15	Recycling of materials found in municipal solid waste
5	Nov.7/ 9	Solid waste generation and collection rates	20	Feb.20/ 22	Closure, restoration, and rehabilitation of landfills
6	Nov.14/ 16	Waste handling and separation, storage, and processing at the source	21	Feb.27/ 29	Solid waste management and planning issues
7	Nov.21/ 23	Collection of solid waste	22	Mar.5/ 7	Holiday (expected)
8	Nov. 28/ 30	Separation and processing and transformation of solid waste	23	Mar.12/ 14	
9	Dec. 5/ 7	Transfer and transport	24	Mar.19/ 21	Norouz Holiday
10	Dec. 12/ 14	Disposal of solid waste and residual matter	25	Mar.26/ 28	Project presentation
11	Dec. 19/ 21		26	Apr.2/ 4	Project presentation
12	Dec. 26/ 28	Holiday (expected)	27	Apr.9/ 11	Eid Al-Fater (expected)
13	Jan.2/ 4	Review	28	Apr.16/ 18	Review
14	Jan.9/ 11	1 st term exam	29	Apr.23/ 25	2 nd term exam
15	Jan.16/ 18	Mid-term break	30	Apr.30/ May 2	-----

Note:

Course content is subject to change based on time limitations and class progress.