Syllabus for MSMGT 785 Waste Management and Resource Recovery

Course Description

The topics included in this course include the generation, processing, and disposal of municipal, industrial, and agricultural waste materials, along with emerging issues like zero waste, producer responsibility and life cycle assessment. These topics are addressed from a technical, economic and environmental perspective, with an emphasis on beneficial reuse and resource recovery as opposed to traditional waste management. The interdisciplinary nature of this field, as well as its increasing emphasis on sustainability, will also be addressed through discussions, exercises and projects.

Course Learning Outcomes

1. Develop an understanding of the generation, treatment, and disposal of municipal, industrial, and agricultural wastes.
2. Critically evaluate waste management and resource recovery processes and policies in the United States and other developed and developing countries.
3. Understand the critical linkage that waste management and resource recovery have in achieving sustainability, particularly as it relates to resource efficiency, energy, climate change and human health.
4. Develop communication skills necessary to effectively convey technical, economic, and social information related to waste management.

Course Materials

Information on course materials can be found in the textbook section of the SMGT website.

Additional materials will be available through instructor.

Course Requirements

Class Participation/Discussions
You are expected to be prepared for class by reading the assigned materials and being an active participant in the discussions. You are expected to make an initial post on the topic as well as respond to at least two other student posts.

Homework Problems/Assignments
Homework problems and assignments will be given periodically throughout the semester. These assignments are due as listed on the calendar. It should be noted that several of the homework assignments will be sequential. Therefore, it will be necessary to correct any errors on previous assignments to complete those that come later. This will be explained in more detail as the homework problems and assignments are provided to you.

Project/Presentation
During the course of the semester, you will work on an individual research project on a topic closely related to waste management or resource recovery. A final paper will be submitted to the instructor. This research paper should be 12-15 pages. Comments on the research paper will be provided by the instructor. Based on the instructor's comments, you will develop and submit a presentation that will be reviewed and evaluated by the instructor as well as the other students in the course. A project review form will be provided at the beginning of the semester, so the expectations for the project are clearly articulated. Examples of research topics, formatting details, and grading specifics can be found in the course.

Critique of Student Presentation
A critique of each presentation will be completed by the other students. This serves two purposes: 1) to see the other projects and learn about a more diverse set of waste management topics, and 2) to receive feedback from other students in the course on their project (compiled and summarized by the instructor). A form similar to the project review form will be provided that clearly articulates the expectations for the critique.

Exams
Exams 1 and 2 will consist of short-answer and essay-type questions that reflect the materials covered during lectures and class discussions. There will not be any computational problems on the exams, as those types of problems will be more closely related to the homework assignments. Exam 2 will **not** be cumulative.

Grading Policy

Class Participation / Discussions	20%
Homework Problems / Assignments	20%
Project / Presentation	25%
Critique of Student Presentations	5%
Exam 1	15%
Exam 2	15%

A	94-100
A-	90-93
B+	87-89
B	84-86
B-	80-83
C+	77-79
C	74-76
C-	70-73
D+	67-69
D	64-66
D-	60-63
F	<60