

CE 546: Solid Waste Management

Department of Civil Engineering - King Saud University

Course Description: CE 546: Solid Waste Management (Required for the M..Sc. degree in Civil Engineering)	Sources, composition and properties of municipal solid wastes. Functional elements of solid waste management systems. Integrated solid waste management. Materials separation and processing technologies. Thermal, biological and chemical conversion technologies. Reuse and Recycling of recovered materials. Landfilling of solid waste. 3(3,0,0)
Topics Covered	<ol style="list-style-type: none">1. Sources, Types and Composition of Municipal Solid wastes (3 hours)2. Characteristics of Municipal Solid Waste (3 hours)3. Hazardous Wastes in Municipal Solid Waste (2 hours).4. Generation and Collection Rates of Solid Waste (3 hours)5. Waste Handling & Separation, Storage and Processing at the Source (3 hours).6. Collection of Solid Waste (6 hours)7. Materials Processing and Recovery (6 hours)8. Waste Conversion/Transformation Technologies (6 hours)9. Waste Transfer and Transport (4 hours)10. Recycling of Solid Waste Materials (3 hours)11. Disposal of Solid Waste and Residuals (6 hours)
Class Schedule	Class is held three times per week in 50-minute lecture sessions.
Textbook(s): Other Supported Material:	<ol style="list-style-type: none">1. Tchobanoglous G., Theisen H., and Vigil S. "Integrated Solid Waste Management: Engineering Principles and Management Issues", International Edition, McGraw-Hill, Inc., New York, 1993.2. Williams P. T. "Waste Treatment and Disposal", John Wiley & Sons, Chichester, England, UK., 1999
Prepared by	<i>Waleed M. K. Zahid</i> , Associate Professor, Environmental Engineering
Date of Preparation	October 2009

Grade Distribution

Mid-term Exam:	25%
Homework:	25%
Final Exam:	50%

Homework

Homework must be done independently and submitted on time. Submission must be neat and clean on A4 paper.