

Course Name: Hazardous Waste Management

Course Description: This course provides an overview of hazardous waste generation, handling, and disposal. Hazardous wastes cost money to dispose properly and often much more money if the disposal is contrary to the law and to appropriate protocols for the protection of human and ecological health. This course will provide a general overview of current laws in Ontario (and other jurisdictions of North America) and the context of hazardous waste laws/protocols within environmental law. Topics include:

- hazardous waste definitions and regulations;
- hazardous waste characteristics and generation;
- hazardous waste storage, collection, and transport; hazardous waste treatment; and
- hazardous waste disposal.

Course Objective: The objective of the course is to introduce learners to the background and issues, processes, and problems associated with hazardous waste. Emphasis is placed on status of the issue today, including problem characterization and identification, engineering design, and approaches to management.

Target Audience: This course is designed as a survey course for environmental practitioners, managers, and administrators at all levels in the public and private sector.

Course Outline: This course addresses the following topics:

- Historical Context
(Introduction to the historical development of the multidisciplinary field of solid and hazardous waste management and current perspectives.)
- Societal Issues
(Public perception, myths, communication, consumerism, education, economics.)
- Regulations and Legislation
- Waste Generation
- Characterization of Solid Waste/Hazardous Waste
(Introduction to the techniques applicable to gathering information on the sources, composition, transport, and properties of solid and hazardous wastes.)
 - Solid Waste Definition
 - Hazardous Waste Definition
 - Municipal Solid Waste Definitions
- Physical, Chemical, and Biological Properties of Waste
- Collection of Hazardous Wastes
- Transfer Stations
(Implementation of management issues in development of Integrated Waste Management systems.)
- Separation and Processing of Hazardous Wastes
(Introduction to the management/engineering principals and advanced technologies related to the separation, processing, and transformation of waste (solid and hazardous).)
- Recycling

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- Hazardous Waste Storage and Destruction Technologies
(Introduction to facts and problems associated with waste treatment & disposal – incineration & landfilling.)
- Impacts on the Environment
(Introduction to the common techniques applicable to soil and groundwater pollution control/ site remediation projects.)

Length of the Course: The course is presented in 12 modules delivered over two days. Each Module comprises a one-hour inter-active lecture, followed by a 20-minute “open book” written quiz on the module.

Course Location: Jacques Whitford Offices, Ottawa

Course Evaluation and Certification: Successful completion of the course and subsequent certification will be granted on the achievement of a minimum grade of 80% in each of the 10 course modules.

Course Pre-requisites: None.

Materials: All necessary course information and references will be provided, though supplementary references will not be provided to the student.

Supplementary reading(s): To be provided.

Instructor Information: The instructors will be drawn from the ranks of senior consultants (10 to 20 years experience) with Jacques Whitford Limited who practice in the following Service Lines:

Designated/Hazardous Substances Assessment and Management
Environmental Site Assessment and Remediation/Water Resources
Hydrogeology (Contaminant Fate and Modeling)
Air Quality
Human Health and Ecological Risk Assessment

Other Important Information: There will be a morning, a lunch, and an afternoon break each day and refreshments and lunch will be provided.

Available Support Services: If you have any questions, please contact course_admin@jacqueswhitford.com or call Course Admin at JWTI (613) 738-0708 ext. 3204.