

EV-110 Industrial Processes

3 Credit Hours

Prerequisite: EV-100 Occupational Safety and CH-110 Basic Chemistry

Co-requisites: EV-200 Waste and Remediation

In this course, the student is provided a nontechnical introduction to common general manufacturing processes that involve hazardous materials and wastes, with emphases on waste minimization/pollution prevention strategies, functions within facilities that are common to most industries and selected unit operations that are widely used in industry. Each student completes a major project in which he/she investigates and reports on a specific industry — especially its basic processes, materials flow, worker health and safety exposures and waste reduction issues.

Course Objectives

At the end of this course, you should be able to:

1. Construct a nontechnical material balance and flow for an industrial unit operation.
2. Identify strategies in conducting a waste minimization opportunity assessment for a facility.
3. Explore methods and technologies for reducing or eliminating solvent waste.
4. Describe the concerns that environmental personnel have relative to a number of functions common to many industries.
5. Synthesize concepts from the student's project with concepts introduced in the course.