

The Faculty
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Environmental Technology

The Curriculum

The curriculum in environmental technology is designed to provide students with the knowledge and skills that will allow them to work with hazardous materials and wastes in compliance with governmental regulations while at the same time protecting human health and the environment.

The Associate Degree/Occupational Certificate Major

The certificate program is designed to train technicians who are able to employ techniques and procedures which comply with federal and state regulations concerning environmental protection and workplace safety. It prepares students for employment by organizations that are involved with environmental monitoring; waste management; site remediation; and the transportation, treatment, storage and disposal of hazardous materials.

Career paths in environmental technology vary widely according to the interest of the student and the specific environmental area in which employment is sought. Students may pursue environmental careers in, for example, air pollution, compliance, assessment, health and safety, law, hydrology, industrial hygiene, toxicology, engineering, hazardous waste management, wastewater treatment, or recycling.

If you intend to transfer:

Courses that fulfill major requirements for an associate degree at Irvine Valley College may not be the same as those required for completing the major at a transfer institution offering a baccalaureate degree. If you plan to transfer to a four-year college or university, you should (1) refer to the transfer section of this catalog, (2) consult the catalog of your prospective transfer institution (see the IVC Transfer Center for assistance), and (3) schedule an appointment with an IVC counselor to develop a plan of study before you begin your program. In addition, it may be helpful to meet with the appropriate department faculty at IVC.

If you plan to complete an associate degree or occupational certificate:

You must complete the following set of courses to fulfill the requirements for the Occupational Certificate or the Associate in Science (A.S.) degree major. For the A.S. degree, you must also meet the general education requirements listed on page 21. Refer to page 16 for additional options for fulfilling the major requirement for the A.S. degree.

ENVIRONMENTAL TECHNOLOGY MAJOR

(A.S. Degree or Occupational Certificate)

		<i>Units</i>
ENT 100	Introduction to Environmental Technology	3
ENT 110	Hazardous Waste Generation, Reduction, and Treatment	3
ENT 130	Health Effects of Hazardous Materials	3
ENT 150	Hazardous Waste Management Applications	4
ENT 170	Hazardous Materials Management Applications	4
ENT 190	Safety and Emergency Response	4
CHEM 4	Introduction to General and Organic Chemistry and Biochemistry	5
BIO 1	Principles of Biology	<u>3</u>
	Total Units	29

Recommended Electives: *ENV 1*;
MGT 103; *CIM 104.1A*

Environmental Technology Courses

ENT 100 3 units

INTRODUCTION TO ENVIRONMENTAL TECHNOLOGY

This course presents an overview of environmental protection and technology. It discusses in detail hazardous substances and wastes; water, soil, and air pollution; federal and state regulations governing the control of toxic substances; hazardous material management in industrial settings; and worker safety and protection. The course is designed as an introduction to the field of hazardous materials management. NR

Lecture hours: 3

ENT 110 3 units

HAZARDOUS WASTE GENERATION, REDUCTION, AND TREATMENT

Recom: Chem. 4 and ENT 100. This course focuses on raw materials and chemicals commonly used in industry and examines the changes that occur as they move through the industrial process. Throughout the course, applicable regulations and waste minimization/treatment procedures and strategies will be discussed. Home hazardous waste generation/reduction will also be considered. NR

Lecture hours: 3

ENT 130 3 units

HEALTH EFFECTS OF HAZARDOUS MATERIALS

Recom: Bio. 1, 10 and ENT 100. This course covers the acute/chronic effects of exposure to hazardous materials commonly associated with industrial operations, waste disposal, and remediation sites. Focus will be on routes of entry, toxic effects, risk evaluation, permissible exposure limit/threshold limit value, control methods, and material safety data sheets. NR

Lecture hours: 3

ENT 150 4 units

HAZARDOUS WASTE MANAGEMENT APPLICATIONS

Recom: ENT 100. This course provides an overview of the hazardous waste management regulatory system, focusing on generator compliance, site investigation and remediation, permitting, enforcement, and liability. During the laboratory component of the course, students will gain hands-on experience in preparing a hazardous waste manifest, labeling storage containers, sampling and analysis, and preparing for a Phase I environmental audit. NR

Lecture hours: 3 Lab hours: 3

ENT 170 4 units

HAZARDOUS MATERIALS MANAGEMENT APPLICATIONS

Recom: Chem. 4, ENT 100 and ENT 130. This course provides an overview of the hazardous materials regulatory system, focusing on compliance strategies that businesses may use to meet the requirements of the Department of Transportation; the Occupational Safety and Health Act; State Title III, "Right to Know" legislation; Proposition 65; and air toxic regulations. The laboratory component of the course gives students practical experience in labeling, shipping, and handling hazardous materials; permitting and monitoring; and working with material safety data sheets. NR

Lecture hours: 3 Lab hours: 3

ENT 190 4 units

SAFETY AND EMERGENCY RESPONSE

Recom: ENT 100 and 130. This course provides students practical instruction and experience in safety and emergency responses to chemical and physical exposure in both industrial and field settings. Topics include contingency planning, site control and evaluation, field sampling and monitoring, and incident response planning. This course satisfies the requirement for the 40-hour training under the Occupational Safety and Health Act (OSHA, 1910.120) and HAZWOPER requirements. NR

Lecture hours: 3 Lab hours: 3