

Environmental Technology Certificate Wastewater Management

The Environmental Technology certificates are a collaborative partnership among Cape Cod Community College, Massachusetts Maritime Academy and University of Massachusetts - Dartmouth, for persons seeking to acquire skills and knowledge in eight environmental fields: Coastal Zone Management, Environmental Site Assessment, Geographic Information Systems, Photovoltaic Technology, Small Wind Technology, Solar Thermal Technology, Wastewater Management, and Water Supply. Students may need to travel to each of the three schools in order to complete all the courses in any certificate program. Students are encouraged to enroll in ENV260 Cooperative Work Experience/Internship.

Course #	Course Title	Credits	Prerequisites	Semester Offered	Semester Taken	Grade Earned
ENV118	Intro to Environmental Science	4	(MAT020 or MAT025), ENL020 & ENL050 or satisfactory basic skills assessment scores	Fall, Spring, Summer		
ENV140	Into to Water: Concepts & Technologies	3	None	Fall		
ENV158	Occupational Health & Safety through Hazardous Waste Management	3	None	Spring		
ENV145	Wastewater Treatment Plant Operation	4	ENV118 & ENV140	Varies		
ENV260	Internship (recommended)	3	ENV118 or ENV170 & permission of instructor	Fall, Spring, Summer		
Total Credits		14/17				

Overview

This certificate provides training for students in wastewater collection and treatment systems. Wastewater chemistry, toxicology and microbiology are covered teaching students the basic processes and common parameters used to measure wastewater at the various stages of treatment. The courses cover the mechanical operation of the systems, an introduction to computer data gathering and process control, and the laws and regulations covering wastewater.

Career Outlook

Completion of the Wastewater Management Certificate prepares a student to obtain a state wastewater license and secure a position at a municipal wastewater treatment plant, a small package plant, or an on-site system. The Department of Labor predicts that employment of wastewater treatment plant and system operators is projected to grow 8 percent from 2012 to 2022, about as fast as the average for all occupations. Job prospects are expected to be excellent.

This certificate is appropriate for students with advanced degrees that are looking for specific technical training.

Program Outcomes

Upon completion of the Wastewater Management Certificate, students are able to:

- Describe the concepts and have the ability to operate, maintain and/or manage many of the waste streams that currently exist.
- Sit for state operator's municipal and/or industrial wastewater treatment licenses.