



Careers in Water

WATER ENVIRONMENTAL TECHNOLOGY

PROGRAM BROCHURE

www.dmacc.edu/programs/water

Part of DMACC's growing list
of "green industry" programs

DMACC
DES MOINES AREA
COMMUNITY COLLEGE
Life's Calling™



DMACC is educating the next generation of water treatment professionals.

While three-quarters of the earth is made up of water, less than one percent is considered freshwater. Water and Waste Water Treatment operators have a tremendous responsibility in removing contaminants and impurities from water to make it safe for people, animals and the environment.

In cooperation with the local water treatment associations, Iowa Department of Natural Resources, Iowa Waste Water Association and other organizations, DMACC has created a new Water Environmental Technology program with four career tracks—all offered at DMACC's Ankeny Campus.

Careers in Water at DMACC

DMACC's Water Environmental Technology degrees and certifications have been designed for students interested in the environment, ecology and/or engineering, and who have a passion for discovery.

With a coming wave of retirements in this industry, plus the introduction of new technology and greater demand for technicians, jobs in the water industry are expected to grow at a steady pace. In fact, employment of wastewater treatment technicians is projected to increase 20 percent by 2018, according to the U.S. Bureau of Labor Statistics (www.bls.gov).

Median salary of wastewater treatment operators is more than \$40,000 a year. Some of their responsibilities include:

- ▶ Operate and maintain equipment
- ▶ Calculate chemical dosages to adjust chemicals and pH
- ▶ Monitor meters and gauges
- ▶ Take test samples and evaluate results



Successful Students, Prepared Graduates, In-Demand Professionals

A DMACC Water Environmental Technology degree prepares you for employment in a number of locations and facilities:

- ▶ Municipal water utilities (Iowa alone has more than 1,000 water municipalities)
- ▶ Municipal wastewater treatment plants
- ▶ Rural water systems
- ▶ Industrial waste treatment facilities
- ▶ Privately owned water/wastewater plants





Diverse Careers

Water careers fall into three major categories:

Operations

Skilled workers monitor and control the processes, perform maintenance and repairs, and report results.

Engineering

Industry professionals design important water and wastewater projects; recommend locations, size and expansions; and develop operation processes. These engineers include electrical, chemical, mechanical, sanitary, environmental and structural. Students interested in this track should consider DMACC's outstanding pre-Engineering program, offered at DMACC Ankeny, Boone and Urban Campuses.

Research

Researchers gather and analyze data from lakes, rivers, oceans and aquifers. They also support university and government projects to develop improved water management practices.



DMACC Curriculum

DMACC's Water Environmental Technology programs provide students with extensive academic and real-world experience, leading to either a certificate or two-year degree in preparation for careers in water and wastewater treatment. The two-year degree includes technical study in water/wastewater procedures, complemented by math, science, social science, humanities classes and an internship.

The Water Environmental Technology program is initially based at the Ankeny Campus, but future classes may come to other DMACC campuses and learning centers. As with other DMACC courses, credits from this program can be transferred to four-year universities.

Wastewater Treatment Technology

Certificate Program

The Wastewater Treatment Technology certificate is designed to give entry-level students and entry-level water industry employees training in skills and theory directly related to water operations. All operators are required by law to be certified. This 18-credit program provides training and educational experiences that will prepare you for certification exams. Work experience is required before you are eligible to take an examination for certification.

Water Environmental Technology

Degree Program

DMACC's innovative Water Environmental Technology degree program provides pre-employment training, as well as advanced courses in water and wastewater technology, for those wishing career advancement. This degree program includes both industrial plant operations training and water operations training with an emphasis on hands-on experience and instruction. Students may choose an emphasis in water treatment, wastewater treatment or both. An internship is a component of the program. The Wastewater Treatment Technology Emphasis requires 76 credits, while the Wastewater Environmental Technology Emphasis requires 72 credits.

Water and Wastewater Treatment Technology

Diploma Program

The Water and Wastewater Treatment Technology diploma is designed to address the education requirements both of operators working in the water treatment industry and entry-level students interested in entering the field of water treatment and wastewater treatment. The 46-credit diploma credential can be further ladderred into the Water Environmental Technology AAS degree program. The main objective of the program is to provide a comprehensive educational opportunity for immediate and future plant operators and treatment employees and managers.

Water Treatment Technology

Certificate Program

This 18-credit certificate is designed to be a starting point for people interested in a career in water treatment. This program prepares them for entry-level employment. The diploma and AAS degree programs are designed to build from this certificate to enable workers in treatment operations to become more comprehensive and valuable employees by giving them the skills to work on advanced equipment and controls and to troubleshoot problematic equipment.

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For more information and specific course offerings in Water and Wastewater Treatment Technology, please visit www.dmacc.edu/programs/water.



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