

Water Resource Management

A.A. DEGREE: 60 units

CERTIFICATE OF ACHIEVEMENT: 25-28 units

DESCRIPTION

The Water Resources Management degree program is designed to prepare students for employment by municipal drinking water and wastewater treatment departments or industrial treatment facilities. Careers in water/wastewater technology generally involve the administration, operation and maintenance of both drinking water and wastewater treatment facilities as well as distribution and collection systems. Gavilan's Water Resources Management Program provides educational courses that prepare students for careers in Water Resources Management. Courses prepare students for certification examinations administered by the State of California as well as those administered by professional associations within the water and wastewater industry. Current instructors are experienced water and wastewater professionals, expert and up-to-date in best-of-breed industry practices. Classes are built around practical examples of real-world scenarios, demonstrations, and field trips whenever possible to maximize understanding of subject matter. Internships are available, too, through Cooperative Work Experience.

PROGRAM LEARNING OUTCOMES

Upon successful completion of this program, students will be able to:

- ▶ Follow safe practices in the laboratory and in plant operations.
- ▶ Apply chemical, microbiological, and mechanical knowledge and skills to maintain proper water and wastewater plant operations.
- ▶ Apply math and hydraulics skills in proper water and wastewater plant, collection system, and distribution system operations.
- ▶ Identify regulations and operate the plant accordingly.
- ▶ Be able to pass the California licensure examination in the water industry.
- ▶ Interact effectively in oral and written communications.
- ▶ Use computers in water and wastewater plant operation.
- ▶ Demonstrate work ethic and model professional interaction with the public.

CORE COURSES (18 UNITS)

WTRM101	Introduction to Water, Wastewater Technology . . .	3
WTRM102	Beginning Water, Wastewater, Distribution Math . .	3
WTRM103	Introduction to Electrical and Instrumentation	3
	Processes	3
WTRM105	Water Distribution 1	3
WTRM106	Beginning Water Treatment Plant Operation	3
WTRM107	Beginning Wastewater Treatment Operations	3

ELECTIVES: SELECT ONE OF THE FOLLOWING: (3 UNITS)

WTRM108	Water Distribution 2	3
WTRM109	Advanced Water Treatment Plant Operation	3
WTRM110	Advanced Water/Wastewater/Distribution Math . . .	3
WTRM111	Advanced Wastewater Treatment Plant Operation . .	3
WTRM112	Applied Hydraulics	3
WTRM113	Beginning Wastewater Collection.	3
WTRM114	Laboratory Analysis for Water, Wastewater	3
WTRM115	Supervision	3

ELECTIVES: SELECT TWO OF THE FOLLOWING (4 - 7 UNITS)

WTRM104	Motors and Pumps, Operation and Maintenance . .	3
WTRM116	Advanced Wastewater Collections.	3
WTRM117	Water Use Efficiency Practitioner	3
WTRM118	Introduction to Occupational Health and Safety . .	3
WTRM119	Industrial Wastewater Management & Treatment . .	3
WTRM120	Pollution Prevention / Storm Water Management . .	3
WTRM121	Mechanical Maintenance	3
WTRM190	Occupational Work Experience/Water/Wastewater .	1- 4
	Technology	

FOR CERTIFICATE COMPLETE CORE COURSES: 18 UNITS PLUS LIST A AND B REQUIREMENTS,

FOR ASSOCIATE DEGREE COMPLETE CORE (18 UNITS) , LIST A (3 UNITS) AND LIST B (4-8 UNITS), AND GENERAL EDUCATION REQUIREMENTS: 35 - 39 UNITS

A student may complete the Gavilan College A.A./A.S. general education, the CSU-GE Breadth or the IGETC pattern, plus sufficient electives to meet a 60 unit total. See a counselor for details.

NOTE: A course may be used to satisfy both general education and major courses. See "Double Counting Rule".