The courses, certificates, and degrees in this major are designed to prepare students for employment by municipal drinking water and wastewater agencies and private industrial treatment facilities. Careers in water/wastewater technology generally involve the administration, operation, and maintenance of drinking water and wastewater treatment facilities, drinking water distribution systems, and wastewater collection systems.

Cuyamaca’s innovative Water & Wastewater Technology Program provides pre-employment training in water and wastewater technology as well as advanced courses for water industry employees seeking career advancement. Courses prepare students for certification examinations administered by the State of California as well as those administered by professional associations supporting the water and wastewater industry.

Our instructors are experienced water and wastewater professionals, experts who are knowledgeable of current, best-of-breed industry practices. Classes are built around practical examples of real-world scenarios, demonstrations, and field trips (where possible) to maximize the students’ understanding of course topics. Internships are also available.
In addition to the Certificates of Achievement and Associate in Science Degrees, many of the courses in each of the majors in this program meet the specialized training requirements and prepare students for a wide variety of certification examinations offered by organizations such as the California Department of Public Health, the State Water Resources Control Board, the American Water Works Association, the American Backflow Prevention Association, the California Landscape Contractors Association, the Irrigation Association, and the California Water Environment Association. Obtaining these certifications is either required by employers or can be very beneficial to applicants in securing jobs in these career fields.

### Course/Program Information

**I. WATER RESOURCES MANAGEMENT**

- Associate in Science Degree Requirements:
  - WWTR 101 - Fundamentals of Water & Wastewater Technology
  - WWTR 103 - Water Resources Management
  - WWTR 105 - Water Conservation Principles and Practices
  - WWTR 115 - Wastewater Reclamation and Reuse
  - WWTR 290 - Cooperative Work Experience

  Select two of the following:
  - CH 120 - Fundamentals of Ornamental Horticulture
  - CH 170 - Plant Materials – Trees and Shrubs
  - CH 221 - Landscape Construction – Irrigation and Carpentry
  - CH 250 - Landscape Water Management
  - CH 290 - Cooperative Work Experience

  (Credit for CH 290 may be applied)

**II. WATER TREATMENT PLANT OPERATOR**

- Associate in Science Degree Requirements:
  - WWTR 101 - Fundamentals of Water & Wastewater Technology
  - WWTR 103 - Water Resources Management
  - WWTR 105 - Water Conservation Principles and Practices
  - WWTR 112 - Basic Plant Operations: Water Treatment
  - WWTR 117 - Advanced Plant Operations: Water Treatment

  Select at least nine units from the following:
  - WWTR 106 - Introduction to Electrical and Instrumentation
  - WWTR 102 - Calculations in Water & Wastewater Technology
  - WWTR 265 - Water Distribution Systems II
  - WWTR 270 - Public Works Supervision
  - WWTR 280 - Backflow Tester Training

**III. WATER DISTRIBUTION SYSTEMS OPERATIONS**

- Associate in Science Degree Requirements:
  - WWTR 101 - Fundamentals of Water & Wastewater Technology
  - WWTR 103 - Water Resources Management
  - WWTR 105 - Water Conservation Principles and Practices
  - WWTR 282 - Cross-Connection Control Specialist
  - WWTR 284 - Cross-Connection Control Specialist – Reclaimed Water

  Select at least nine units from the following:
  - WWTR 106 - Introduction to Electrical and Instrumentation
  - WWTR 265 - Water Distribution Systems II
  - WWTR 280 - Backflow Tester Training
  - WWTR 390 - Cooperative Work Experience

**IV. WASTEWATER COLLECTION SYSTEMS**

- Associate in Science Degree Requirements:
  - WWTR 101 - Fundamentals of Water & Wastewater Technology
  - WWTR 103 - Water Resources Management
  - WWTR 105 - Water Conservation Principles and Practices
  - WWTR 114 - Basic Plant Operations: Wastewater Treatment
  - WWTR 115 - Wastewater Reclamation and Reuse

  Select at least nine units from the following:
  - WWTR 106 - Introduction to Electrical and Instrumentation
  - WWTR 102 - Calculations in Water & Wastewater Technology
  - WWTR 265 - Water Distribution Systems II

**V. WASTEWATER TREATMENT OPERATOR**

- Associate in Science Degree Requirements:
  - WWTR 101 - Fundamentals of Water & Wastewater Technology
  - WWTR 103 - Water Resources Management
  - WWTR 105 - Water Conservation Principles and Practices
  - WWTR 102 - Calculations in Water & Wastewater Technology
  - WWTR 104 - Applied Hydraulics

  Select at least nine units from the following:
  - WWTR 106 - Introduction to Electrical and Instrumentation
  - WWTR 265 - Water Distribution Systems II
  - WWTR 280 - Backflow Tester Training
  - WWTR 284 - Cross-Connection Control Specialist

**VI. BACKFLOOD/CROSS CONNECTION CONTROL**

- Associate in Science Degree Requirements:
  - WWTR 101 - Fundamentals of Water & Wastewater Technology
  - WWTR 103 - Water Resources Management
  - WWTR 105 - Water Conservation Principles and Practices
  - WWTR 106 - Introduction to Electrical and Instrumentation
  - WWTR 265 - Water Distribution Systems II

  Select at least nine units from the following:
  - WWTR 106 - Introduction to Electrical and Instrumentation
  - WWTR 265 - Water Distribution Systems II
  - WWTR 280 - Backflow Tester Training

**DEGREES & CERTIFICATES**

**ASSOCIATE IN SCIENCE DEGREES**

- Students who complete all of the prescribed core and elective course requirements, plus a minimum of 24 required General Education requirements, may qualify for an Associate in Science Degree in that major. An official request must be filed with the Admissions and Records Office prior to the stated deadlines in the College Academic Calendar each semester.

**CERTIFICATES OF ACHIEVEMENT**

- Students who complete only the major requirements may qualify for a Certificate of Achievement in each of the majors listed above. An official request must be filed with the Admissions and Records Office prior to the stated deadlines in the College Academic Calendar each semester.