

# WATER TREATMENT SYSTEMS TECHNOLOGY

## DEGREES, CERTIFICATES AND AWARDS

Associate of Science Degree (A.S.)

Certificate of Achievement

Specialization Certificate

Wastewater Treatment

## DESCRIPTION

Water Technology is a career oriented vocational program involving the study of water/wastewater theory and principles. Professionalism, workplace skills and responsibilities are stressed along with safety and an awareness of hazardous materials control. The Water Treatment Systems Technology degree and certificates are designed to provide students with the comprehensive understanding and manipulative skills, technical knowledge, and related trade information required to become State-certified operators in Water Treatment and Water Distribution. This program will allow students to comply with the necessary requirements for certification up to Grade III level. Once the student becomes a state certified operator on any or all disciplines, he or she will qualify to seek employment in the Water Treatment Systems Technology disciplines anywhere in the State.

## PROGRAM LEARNING OUTCOMES

1. Interpret and use analytical data to perform operational adjustments.
2. Assume responsibility for water treatment operational changes.
3. Understand and evaluate issues concerning the proper use and distribution of the water natural resources.

## ASSOCIATE DEGREE AND CERTIFICATE OF ACHIEVEMENT PROGRAMS

**The Associate in Arts (AA) or the Associate in Science (AS) Degree** involves satisfactory completion of a minimum of 60 semester units with a C average or higher, including grades of C in all courses required for the major, and fulfillment of all IVC district requirements for the associate's degree along with all general education requirements. The degree provides a sound basis for transfer to upper division institutions for additional degrees or for higher vocational preparation. To be eligible to receive an Associate Degree the student must complete the requirements for the major, the District requirements for an Associate Degree, and the General Education requirements. In addition students must maintain a minimum grade point average and meet the minimum grade requirements of their program. Detailed information is available in the college catalog.

**The Certificate of Achievement** program is designed for students with personal or occupational goals who wish early employment. To qualify for the Certificate, a student must satisfy the following requirements: (1) complete all courses listed for a particular certificate.; (2) achieve a "C" average (2.0 GPA) for all courses used to complete the certificate; and, (3) file a Certificate Application form with Admissions and Records by the appropriate deadline(s) identified on the application.

## CAREER OPPORTUNITIES

- Water Treatment Plant Operator
- Wastewater Treatment Plant Operator
- Water Distribution Operator

**Gainful Employment:** Federal regulations require institutions to provide students with Gainful Employment information for specific certificate programs offered at IVC. Please click on our Programs of Study link to view the information for each certificate program: <http://www.imperial.edu/courses-and-programs/programs-of-study/>



## TRANSFER PREPARATION

Courses that fulfill major requirements for an associate degree at Imperial Valley College may not be the same as those required for completing the major at a transfer institution offering a bachelor's degree. Students who plan to transfer to a four-year college or university should schedule an appointment with an IVC Counselor to develop a student education plan (SEP) before beginning their program.

### Transfer Resources:

[www.ASSIST.org](http://www.ASSIST.org) – CSU and UC Articulation Agreements and Majors Search Engine

[www.CSUMentor.edu](http://www.CSUMentor.edu) – CSU System Information

[www.universityofcalifornia.edu/admissions/index.html](http://www.universityofcalifornia.edu/admissions/index.html) – UC System Information

[www.aiccu.edu](http://www.aiccu.edu) – California Independent Colleges and Universities, Association of

<http://wiche.edu/wue> – Western Undergraduate Exchange Programs

## FINANCIAL AID

Paying for the cost of a college education requires a partnership among parents, students and the college. As the cost of higher education continues to rise we want you to know that IVC offers a full array of financial aid programs – grants, work study, scholarships, and fee waivers (we do not participate in the federal loan programs). These programs are available to both full and part time students who are seeking a degree or certificate. For those who qualify, financial aid is available to help with tuition, fees, books and supplies, food, housing, transportation, and childcare. Please log onto our website for additional information: [www.imperial.edu/students/financial-aid-and-scholarships/](http://www.imperial.edu/students/financial-aid-and-scholarships/)

# WATER TREATMENT SYSTEMS TECHNOLOGY

## ASSOCIATE DEGREE PROGRAM

### WATER TREATMENT SYSTEM TECHNOLOGY MAJOR – A.S. DEGREE

Eighteen (18.0) units required for the major.

ALL COURSES FOR THIS MAJOR MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the major (18.0 units)

WT	105	Computational Procedures Operator I	3.0
WT	110	Water Treat Plant Operator I	4.0
WT	140	Water Distribution Systems	4.0
WT	205	Computational Procedures Operator II	3.0
WT	210	Water Treat Plan Operator II	4.0

**Total Major Units**

**18.0**

---

## CERTIFICATE PROGRAM(S)

### WATER TREATMENT SYSTEMS TECHNOLOGY CERTIFICATE

Eighteen (18.0) units required for the certificate.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

#### I. Required courses for the certificate (18.0 units)

WT	105	Computational Procedures Operator I	3.0
WT	110	Water Treat Plant Operator I	4.0
WT	140	Water Distribution Systems	4.0
WT	205	Computational Procedures Operator II	3.0
WT	210	Water Treat Plan Operator II	4.0

**Total Certificate Units**

**18.0**

### SPECIALIZATION CERTIFICATE

The Specialization Certificate(s) demonstrates a completion of coursework in addition to the major in Water Treatment Systems Technology.

## SPECIALIZATION CERTIFICATE

### WATER TREATMENT SYSTEMS TECHNOLOGY: WASTEWATER TREATMENT SPECIALIZATION CERTIFICATE

Twelve (12.0) units required for the certificate.

ALL COURSES FOR THIS CERTIFICATE MUST BE COMPLETED WITH A MINIMUM GRADE OF "C" OR BETTER.

## PROGRAM LEARNING OUTCOMES

1. Demonstrate knowledge of: Water source, treatment, flocculation, sedimentation, odor control, plant operation and laboratory procedures.
2. Ability to calculate all basic mathematic problems that applied to treatment plant operations. This calculation includes fractions decimals, percentages, ratios, proportions, volumes, metric system and estimation.
3. Develop preventative maintenance programs and maintain records of inspection and repair for all water works.

#### I. Required courses for the certificate (12.0 units)

WT	130	Wastewater Treatment Operator I	4.0
WT	150	Wastewater Collection Systems	4.0
WT	230	Wastewater Treatment Operator II	4.0

Total Major Units

18.0

Water treatment Specialization Units

12.0

**Total Certificate Units**

**30.0**