

## Definition

These courses will help prepare students for the various grade-level water treatment and/or distribution examinations administered by California Department of Health Services. Specific courses may also be used as secondary course required for specialized training or for students who wish to enter or who are already employed in the water treatment and water distribution operator fields as defined by California Department of Health Services.

## Staff

To access faculty and staff, dial (661) 722-6300, then the 4-digit extension.

### Dean:

Christos Valiotis ext. 6415

### Administrative Assistant:

Wendy Cios ext. 6415

### Clerical Assistant III:

Suzanne Olson ext. 6415

### Department Chair:

Dr. Zia Nisani ext. 6916

### STEM:

Christos Valiotis, Director ext. 6024

Jamie Jones, Coordinator ext. 6992

Denilson Freitas, Lab Technician ext. 6992

### Adjunct Faculty:

To access adjunct faculty voice mail, dial (661) 722-6300, then the 4-digit number.

V.M.

Toby Taube 2409

Douglas Holmes 2530

## Certificate Program

Certificate not applicable.

## Associate Degree

Associate degree not available.

## Transfer

Students planning to continue studies at a four-year college or university after AVC should visit the Transfer Resource Center and consult with a counselor as soon as possible. Additional information on official transfer articulation agreements from AVC to many CSU/UC campuses can be found at the following Web site: [www.assist.org](http://www.assist.org)

## Prerequisite Completion

If a course is listed as a prerequisite for another course, that prerequisite course must be completed with a satisfactory grade in order to enroll in the next course. According to Title 5, Section 55200(d), a satisfactory grade is a grade of "A," "B," "C" or

"P". Classes in which the Pass/No Pass option is available are indicated with an asterisk (\*) before the course title. See "Pass/No Pass Option" in the catalog for full explanation.

## Water Treatment Courses

### WDTO 101 APPLIED WATER TREATMENT AND DISTRIBUTION MATHEMATICS

3 units

3 hours weekly

**Advisory:** Eligibility for ENGL 100A, READ 099.

The course is designed to enhance the student's knowledge of the units of measure and type of math calculations used daily in the water treatment and/or distribution fields. The student will become familiar with the units of measure and be able to perform various math calculations involving chemical dosages, chemical feed rates, chemical dilutions and solution concentration, disinfection, flow rate, velocity, time, volume, CT calculation, hydraulics, pressure, force, head and pressure horsepower calculations, cost to pump, specific capacity and well yield, detention time, filtration rate, filter loading and backwash rates, hardness removal capacity and instrument calibration calculations. This course is designed to provide specialized training as defined by the California Department of Public Health for students who wish to enter or who are already employed in the water treatment and water distribution operator fields. This course will help prepare the student for the Grade 1 – 4 level treatment and Grade 1 – 5 level distribution examinations administered by California Department of Health Services. This course may be used as a secondary course required for specialized training as defined by California Department of Public Health. The student must attend at least 36 hours of class time (contact hours) to receive a certificate of successful completion. This ensures acceptance of the certificate by the California Department of Public Health, Operator Certification Branch as a prerequisite to take state exams or contact hours for certificate renewal. (AVC)

### WDTO 115 \*WATER DISTRIBUTION I

3 units

3 hours weekly

**Advisory:** Eligibility for ENGL 100A, READ 099.

This is a basic course covering all aspects of water distribution including, sources of water and hydrologic cycle, water math, basic water chemistry, disinfection, corrosion control, cross connections, bacteriology, hydraulics and the public health aspects of potable water quality and standards. Water distribution system operation and maintenance of, wells, valves, pumps, tanks, reservoirs, mains, meters, chlorination systems, appurtenances and safety aspects of waterworks operations. This course is designed to provide specialized training as defined by the California Department of Health Services for students who wish to enter or who are already employed in the water treatment and water distribution operator fields. The student

must attend at least 36 hours of class time (contact hours) to receive a certificate of successful completion. This ensures acceptance of the certificate by the California Department of Public Health, Operator Certification Branch as a prerequisite to take state exams or contact hours for certificate renewal. (AVC)

## **WDTO 120 \*WATER TREATMENT I**

*3 units*

*3 hours weekly*

**Advisory:** *Eligibility for ENGL 100A, READ 099.*

This course is designed to train potential and current water treatment professionals in understanding the water treatment process. The course content, selected from expected range of knowledge for Grades 1 & 2 Operator Certification, Drinking Water Program, State of California, includes sources of raw water supplies, treatment requirements for different sources, various water quality parameters and their significance in drinking water with regard to public safety. Students will learn how to operate a drinking water treatment plant according to State regulations. Topics include treatment processes for removal of contaminants; elementary water chemistry; chemical dosage problems; water supply regulations; water source protection; water quality monitoring; distribution system operation; and customer complaints investigation. The student must attend at least 36 hours of class time (contact hours) to receive a certificate of successful completion. This ensures acceptance of the certificate by the California Department of Public Health, Operator Certification Branch as a prerequisite to take state exams or contact hours for certificate renewal. (AVC)