

Water Utility Science Classes, Fall 2018

Classes are 16 weeks, August 27 through December 16 (except where otherwise noted.)

EXAM PREPARATION CLASSES OFFERED ONLINE!

Be totally prepared for your next State license exam. Our online format makes it easy.
Each half-unit class requires 2-3 hours per week of online instruction.

WATR 048 –Wastewater Operator Exam Review (9 contact hours) Review for California SWRCB, Wastewater Treatment Operator examinations.	09/17-10/13/18 Section 54769
WATR 054 –Advanced Treatment Exam Preparation (9 contact hours) Review for California SWRCB, T3 and T4 examinations.	10/08-11/03/18 Section 54770
WATR 056 –Treatment Exam Preparation (9 contact hours) Review for California SWRCB, T1 & T2 examinations.	10/08-11/03/18 Section 54798
WATR 057 – Water Distribution Exam Preparation (9 contact hours) Review for California SWRCB, D1 & D2 examinations.	08/27-09/15/18 Section 54799
WATR 059 – Advanced Water Distribution Exam Preparation (9 contact hours) Review for California SWRCB, D3, D4, and D5 examinations.	08/27-09/15/18 Section 54771

WATR 020, Introduction to Water Science

3 Units

An overview of Water Science topics including water sources and supply, water quality and regulations, water transmission and distribution, and treatment of water and wastewater. Discussions will include applicable science and math principles, current events, and Water careers. Optional field trips may be offered.



Section 58962 requires 3.5 hours/week online Stephen McLean Full Semester

WATR 050, Water Mathematics and Hydraulics

3 Units

Practical application of mathematics to perform unit conversions and to calculate areas, volumes, flow rates, pressures, velocities, chemical dosages and related hydraulic calculations used in water system operations.

Completion of Mathematics N06 or equivalent skills as measured by the Math Level 1 Exam recommended.



Section 54695 requires 3.5 hours/week online Jeffry Dennis Full Semester
Section 54697 6:30–9:40p Th Jeffry Dennis Full Semester

WATR 052, Water Conservation Practitioner

3 Units

Theoretical and practical training in applied water use efficiency. Includes residential, commercial, and landscape customers, water uses, budgets, demand management, water audits, best management practices, rate structures, program design and management. Preparation for American Water Works Association (AWWA) Grade 1 and 2 Water Conservation Practitioner certification.

Section 54698 6:30–9:40p Th Rachel Davis Full Semester

WATR 061, Water Distribution

3 Units

Prerequisite: Water Utility Science 050.

Presents basic concepts of drinking water distribution, including water sources, water quality, and distribution system components. Water mathematics topics addressed include volume, flow rate, velocity, and chemical feeding calculations. Assists in the preparation for the California State Water Resources Control Board level D1 and D2 Water Distribution Operator certification exams.



Section 54847 requires 3.5 hours/week online Stephen McLean Full Semester

WATR 062, Advanced Water Distribution

3 Units

Prerequisite: Water Utility Science 061.

Presents advanced concepts of drinking water distribution, including water quality regulations, distribution system components, maps and records, and supervisory and management topics. Advanced water math topics addressed include applied system and pump hydraulics. Assists in the preparation for the California State Water Resources Control Board level D2, D3, and D4 Water Distribution Operator certification exams. **Hybrid** format combines online and in class instruction.

Section 54849 6:30–9:40p M Dennis Cafferty 10/22–12/16/18

WATR 063, Electrical Wiring and Controls for Operators

3 Units

Theoretical and practical skills needed to perform preventive maintenance and minor repair of basic electrical wiring and control systems used in water and wastewater facilities.

Section 54854 6:30–9:40p Tu Mike Molinari Full Semester

WATR 064, Pumps and Pumping

3 Units

Basic pump theory, operation, and repair. Assists operators and technicians in the design, selection, installation and maintenance of various dynamic and positive displacement pumps. Topics include pumps and pump components, hydraulics, and pumping system efficiencies.

Section 54857 6:30–9:40p W David Rodriguez Full Semester

Hybrid format combines online instruction with in class meetings. Requires 1.5 hour per week online.

WATR 065, Backflow Prevention Devices

2 Units

Theory, testing, and maintenance of backflow prevention devices in water systems. Prepares the journeyman plumber, plant maintenance operator, and water utility operator to become a certified tester in Orange County. Also prepares the student for American Water Works Backflow Prevention certification exam.

Section 54863 6:30–9:35p W Martin Friebert Full Semester

WATR 071, Water Treatment Fundamentals

3 Units

Prerequisite: Water Utility Science 050.

A specialized course including conventional treatment processes, facility maintenance, water sources, monitoring, sampling, and water quality standards. Primary course for CDPH Water Treatment T2 and T3 examinations. **Hybrid** format combines online and in class instruction.

Section 54866 6:30–9:40p W Jeffry Dennis 10/22–12/16/18

WATR 072, Advanced Water Treatment

3 Units

Prerequisite: Water Utility Science 071.

Presents the basic operating principles and techniques of the conventional surface water treatment process of coagulation, flocculation, sedimentation, and filtration, plus those of common disinfection processes. Assists in preparation for Grade T1 and T2 Water Treatment Operator certification examination given by the California State Water Resources Control Board, Division of Drinking Water Programs.

Section 54875 requires 3.5 hours/week online Jeffry Dennis Full Semester

WATR 073, Water Quality

3 Units

Examines basic principles of chemistry and microbiology, and applies them to drinking water quality and related stated and federal regulations. **Hybrid** format combines online and in class instruction.

Section 62740 6:30–9:40p Tu Jeffry Dennis 10/22–12/16/18

WATR 081, Wastewater Treatment

3 Units

Prerequisite: Water Utility Science 050.

Presents the basic operating principles and techniques of conventional wastewater treatment, including preliminary, primary, and secondary treatment processes, as well as wastewater quality assessment, wastewater collection, and wastewater disposal. Successful completion provides student with 48 Certification for Wastewater Professionals (CWEA) contact hours and 8 State Water Resources Control Board (SWRCB) educational points. Prepares student for SWRCB Wastewater Treatment Plant Operator exam-Grades 1 and 2.

Section 54886 6:30–9:30p Th Shabbir Basrai Full Semester

Hybrid format combines online instruction with in class meetings. Requires 2 hours per week online.

WATR 092, Water Utility Management

1 Unit

Section 62741 6:30–7:50p M Stephen Mclean 10/15–12/16/18

This course explores various supervision and management issues of particular relevance to the water industry regulations, employee safety programs, facilities security, emergency response, governing body interactions, and public relations.

Hybrid format combines online instruction with in class meetings. Requires 2 hour per week online.

WATR 107, California Water Resources

3 Units

Introduction to water law and rights, California water history, political lore, and water supply agencies serving Orange County. Includes hydrologic cycle, sea water intrusion, protection of wells and reservoirs, flood control, pollution/contamination of ground water supplies, and the conservation of water.

Section 54888 requires 3.5 hours/week online Stephen McLean Full Semester

WATR 199, Cooperative Work Experience Education

1-4 Units

Prerequisite: Successful completion of 6 units in Water Utility Science

Job Site experience will train the student in additional job skills that will enhance academic learning from the classroom to the workplace. Contact westerhout_lisa@sccollege.edu for more information.