

# WATER SYSTEMS TECHNOLOGY

**Pathway: Construction, Maintenance & Utilities**  
**Chair: William (Bill) Elarton, Room SQ/B-122**  
**(213) 763-3700, [cdm@lattc.edu](mailto:cdm@lattc.edu)**



Award Title	Award Type	GE Units	Required Course Units	Major Elective Units	Major Units
Water Systems Technology--Wastewater Technology	A.S.	21	21	9	30
Water Systems Technology--Supply Water Technology	A.S.	21	21	9	30
Supply Water Systems Technology	C		30	-	30

At least 60 degree applicable units are required to earn an Associate degree.  
 For additional related degrees and certificates, refer to Plumbing.

## PROGRAM OVERVIEW

Projected retirements of existing operators and expansion of the industry will fuel the demand for occupations in Supply Water Distribution. The net result of these shifts will be increased openings for personnel in all areas: plant operations, distribution/collection field maintenance, administration, customer service, line supervision, meter readers, engineers, and plant maintenance. The Water Systems Technology program at LATTC offers students a choice of two concentrations within water systems industry:

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- **WASTEWATER OPTION** offers courses focusing on preliminary, primary, secondary, and tertiary treatment systems as well as disinfection methods, solids treatment, and solids and effluent disposal practices.
- **SUPPLY WATER OPTION** offers courses focused on the operation and design of water systems, wells, pumps and meters; water treatment for potable water; and technical phases of automatic controls, including power and code considerations.

## PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the Degree program, students are able to:

1. Discuss Regulations governing wastewater treatment and organizations involved.
2. Describe the supply water treatment processes and process control strategies.
3. Use advanced mathematical operations to solve applied wastewater calculations and measurements.

## WATER SYSTEMS TECHNOLOGY-- WASTEWATER TECHNOLOGY

**Associate in Science Degree**  
**Major Units: 30**

Requirements for the Associate in Science degree in Water Systems Technology--Wastewater Technology may be met by completing 21 units of Required Courses and 9 units of Major Elective Courses with a "C" or better, along with general education courses meeting graduation requirements.

In the State of California, there are five operator grade levels of profession in operating and maintaining publicly owned wastewater treatment facilities. Each grade level requires passing an examination administered by the State of California, after meeting qualifying experience and educational requirements. An Associates degree and 6 years of performance of an Operator Duty while holding a certificate, qualifies a person to be promoted to grade five level.

### REQUIRED COURSES

SEMESTER I		UNITS
WATER 101	Intro to water supply, water treatment & distribution	3
WATER 102	Basic Applied Calculations and Measurements	3
SEMESTER II		UNITS
WASTE 017	Wastewater Operations (Public Health, Environment & Management)	3
WASTE 012	Wastewater Operations I	3
SEMESTER III		UNITS
WASTE 013	Wastewater Operations II	3
WASTE 014	Wastewater Operations III	3
SEMESTER IV		UNITS
WASTE 018	Advanced Applied Calculations and Measurements	3

### MAJOR ELECTIVES

Select 9 units from the courses below		UNITS
WASTE 016	Wastewater Operations V	3
BUS 032	Business Communications	3
BUS 033	Technical Report Writing	3
MATH 115	Elementary Algebra	5
MATH 125	Intermediate Algebra	5
WATER 001	Water Distribution I	3
WATER 004	Water Purification I (Potable)	3
SWM TEK 101	Introduction to Solid Waste Management	3
LABR ST 002	Collective Bargaining	3
LABR ST 003	Labor Relations Law	3

## WATER SYSTEMS TECHNOLOGY-SUPPLY WATER TECHNOLOGY

### Associate in Science Degree Major Units: 30

By fulfilling the program requirements, students are prepared for certification by the American Water Works Association (AWWA) as well as the State Department of Health. Students will also have the background to advance in the Supply Water Industry.

Requirements for the Associate in Science degree in Water Systems Technology-Supply Water Technology may be met by completing 21 units of Required courses and 9 units of Major Elective courses with a "C" or better. Information on general education requirements may be found in the catalog under Graduation Requirements.

#### REQUIRED COURSES

		UNITS
WASTE 018	Water & Wastewater Mathematics	3
WATER 001	Water Distribution I	3
WATER 002	Water Distribution II	3
WATER 004	Water Purification I (Potable)	3
WATER 005	Water Treatment II (Potable)	3
WATER 101	Introduction to Supply Water Technology	3
WATER 102	Calculations and Measurement for Water Technology Programs	3

#### MAJOR ELECTIVES

		UNITS
BUS 032	Business Communications	3
BUS 033	Technical Report Writing	3
LABR ST 002	Collective Bargaining	3
LABR ST 003	Labor Relations Law	3
MATH 115	Elementary Algebra	5
MATH 125	Intermediate Algebra	5
SWM TEK 101	Introduction to Solid Waste Management	3
WASTE 012	Wastewater Operations I	3
WASTE 016	Wastewater Operations V (Mechanics, Fluids, Electricity Management)	3
WASTE 017	Wastewater Operations VI (Public Health, Env. & Mgt.)	3

## SUPPLY WATER SYSTEMS TECHNOLOGY

### Certificate of Achievement Major Units: 30

A Certificate of Achievement in Supply Water Systems Technology may be earned by completing 30 units of Required Courses listed under for the Associates degree in Water System Technology-Supply Water Technology with a "C" or better in each course.

## USEFUL LATTTC LINKS:

**College Catalog:** <http://college.lattc.edu/catalog/>  
**Financial Aid Office:** <http://college.lattc.edu/financialaid/>  
**Counseling Department:** <http://college.lattc.edu/counseling/>  
**General Education Information:** <http://college.lattc.edu/catalog>  
**Construction, Design, and Manufacturing Pathway:** <http://college.lattc.edu/cdm>

You can register in these classes by logging on to the Student Information System at <http://college.lattc.edu/student/new-students/register-now/>

*For additional information consult a LATTTC college counselor.*