

WATER/WASTEWATER TECHNOLOGY (WWT)

WWT 100 Calculations in Water/Wastewater Technology 3 Units

This course is the study of the mathematical principles and methods involved in solving problems related to water and wastewater treatment, distribution, and collection systems, including volume, flow rate, velocity, pressure, force, unit conversions, dimensional analysis, chemical dose rates, dilutions, filter loading and backwash rates.

Lecture Hours: 3 Lab Hours: None Repeatable: No Grading: L
Advisory Level: Read: 2 Write: 2 Math: 3
Transfer Status: None Degree Applicable: NAA
CSU GE: None IGETC: None District GE: None
Credit by Exam: Yes

WWT 101 Fundamentals of Water Quality and Wastewater Technology 3 Units

This course provides a broad overview of the water quality and wastewater fields and issues confronting the industry. Students will learn how source waters are obtained, treated, and distributed and how wastewater is collected, transported, disposed, and recovered in the area. Contemporary issues facing the water and wastewater technology will be explored.

Lecture Hours: 3 Lab Hours: None Repeatable: No Grading: L
Advisory Level: Read: 4 Write: 4 Math: 3
Transfer Status: None Degree Applicable: NAA
CSU GE: None IGETC: None District GE: None

WWT 102 Introduction to Electrical and Instrumentation Processes 3 Units

This is an introductory course in basic electronic, electrical, and control system principles. Electrical safety precautions, component identification, schematic interpretation, motors, transformers, relays and test equipment will be studied. Automated process control devices and an overview of current technologies will be discussed.

Lecture Hours: 3 Lab Hours: None Repeatable: No Grading: L
Advisory Level: Read: 2 Write: 2 Math: 2
Transfer Status: None Degree Applicable: NAA
CSU GE: None IGETC: None District GE: None
Credit by Exam: Yes

WWT 103 Basic Plant Operations: Water Treatment 3 Units

This course is the study of the sources of water and the public health aspects of water supply; chemical, physical and bacteriological standards of water quality; types of water treatment plants; water treatment procedures, operation, maintenance, storage and distribution.

Lecture Hours: 3 Lab Hours: None Repeatable: No Grading: L
Advisory Level: Read: 2 Write: 2 Math: 2
Transfer Status: None Degree Applicable: NAA
CSU GE: None IGETC: None District GE: None
Credit by Exam: Yes

WWT 104 Basic Plant Operations: Wastewater Treatment 3 Units

This course is an introduction to the basic principles involved in the operation of conventional public wastewater treatment plants. The course provides information on plant hydraulics, preliminary, primary and secondary treatment processes, disinfection, as well as environmental and safety regulation compliance.

Lecture Hours: 3 Lab Hours: None Repeatable: No Grading: L
Advisory Level: Read: 2 Write: 2 Math: 2
Transfer Status: None Degree Applicable: NAA
CSU GE: None IGETC: None District GE: None
Credit by Exam: Yes

WWT 105 Water Distribution Systems 3 Units

This course is the study of the operation and maintenance of water supply and distribution systems. Water sources, water quality, treatment methods, distribution operations, customer metering, pipeline installation and repair, valves and appurtenances, storage tanks, and maintenance topics will be discussed. Mathematical and hydraulic formulas and principles to determine volume, flow, pressure and force will be discussed. This course is part of a series required for eligibility to take the California Department of Public Health (CDPH) Water Distribution Operator certification examinations and supports certification examinations for CDPH Water Distribution Operator grade D1 and D2.

Lecture Hours: 3 Lab Hours: None Repeatable: No Grading: L
Advisory Level: Read: 2 Write: 2 Math: 2
Transfer Status: None Degree Applicable: NAA
CSU GE: None IGETC: None District GE: None
Credit by Exam: Yes

WWT 106 Wastewater Collection Systems 3 Units

This course is the study of the components of wastewater collection systems. It is an overview of design installation, operation, monitoring, maintenance and repair of sewer pipelines, pump stations and related facilities.

Lecture Hours: 3 Lab Hours: None Repeatable: No Grading: L
Advisory Level: Read: 2 Write: 2 Math: 2
Transfer Status: None Degree Applicable: NAA
CSU GE: None IGETC: None District GE: None
Credit by Exam: Yes