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Introduction

hat Is In This Directory?

This guide provides an overview of the educational requirements contained in both the Water Code, Division 7, Water Quality, Chapter 9 Waste Water Treatment Plant Classification and Operator Certification and the California Code of Regulations Title 23, Chapter 26, Division 3, and lists opportunities to satisfy those requirements.

hat Is The State Water Board Authority?

<u>Water Code, Division 7, Chapter 9, Section 13629</u> authorizes the State Water Resources Control Board (State Water Board) and the Wastewater Operator Certification Program (WWOCP) to approve courses of instruction at higher educational institutions. The section also gives the WWOCP authority to approve courses of instruction given by professional associations, nonprofit or for-profit private or public agencies, and educational companies if they are equivalent to courses of instruction given by higher educational institutions. Upon request, the WWOCP will assign educational points to approved courses.

California Code of Regulations Title 23, Chapter 26, Division 3, Sections 3685-3687, specify the education requirements and set out the method used by the State Water Board to calculate educational points.

hy Is Training So Critical?

The State Water Board, WWOCP certifies all operators of wastewater treatment plants with the primary goal of protecting public health and the environment by ensuring that all operators are trained in operating wastewater treatment plants. In California, all prospective wastewater treatment plant operators must demonstrate to the WWOCP that they have successfully taken technical training.

In fact, before an applicant is even all owed to take an examination, they must document their training by sending official or copies of official college transcripts, diplomas or training certificates to the WWOCP. For more information, please visit our website at: http://www.waterboards.ca.gov/water_issues/programs/operator_certification/operator_certification.shtml. Depending on grade level, prospective operators must have specific levels of training. In some cases, this means college classes; in others it means seminars or in-house programs. Several grades have more than one possible path to satisfy the requirements.

hat Are The Requirements?

Please refer to the "<u>OPERATOR CERTIFICATION REQUIREMENTS TABLE</u>" on page six for a list of education and experience requirements for Grades I through V. There is an educational requirement to both take the Examinations and to qualify for Certifications.

NOTE: Applicants must take and pass the WWOCP Examination before applying for Certification.

Educational Points vs. Semester Units

Educational Points are automatically allotted to non-college/university coursework (continuing education, association coursework, etc.) Additionally, if an applicant submits less than 60 semester (or equivalent quarter) units of college/university coursework and less than 15 semester units were earned in biology, chemistry, wastewater treatment, engineering, math or physics, the semester or quarter units will automatically be converted to educational points. Please note that all college/university coursework must be completed at an accredited college or university. Educational Points cannot be converted into Associate's degree or Bachelor degree educational status. College and university courses completed on a quarter system are prorated to semester units.

California Code of Regulations Title 23, Chapter 26, Division 3, Section 3685 of the regulations authorizes the State Water Board to grant educational points as follows:

- (a) Pursuant to the provisions of this article, applicants may be required to obtain educational points to qualify for certification. Operators may receive educational points for completing wastewater treatment, biology, chemistry, engineering, math, or physics courses as follows:
 - (1) One three-unit semester course completed as part of the curriculum of an accredited college or university is equal to eight educational points. Operators who have completed courses that result in more or less than three units or in quarter units rather than semester units shall be credited with educational points on a prorated basis.
 - ⁽²⁾Each hour of instruction given by a professional association, private/public agency, or education company is equal to one tenth of an educational point (.1); ten hours of instruction is equivalent to one educational point.
- (b) At Grades III, IV, and V, operators may earn up to a maximum of sixteen educational points for completing management courses. An operator may not earn more than four educational points for each management category. The management categories are: oral communication, technical writing, public administration, business management, and finance.

Educational points for a management coursework may be earned as follows:

- (1) One completed two-unit semester course (or any course worth more than two semester or three-quarter units) that is part of the curriculum of an accredited college or university is equal to four educational points.
- (2) Each hour of instruction taught at a professional association, private/public agency, or education company is equal to one half of an educational point; it takes twenty hours of instruction to equal one educational point.
- (c) Applicants may not substitute experience for educational points.

The chart below may be useful when converting units to educational points:

Units (Semesters)	Educational Points
1	2.5
2	5.5
3	8.0
4	10.5
5	13.5
6	16.0
Units (Quarter) 12 weeks	Educational Points
Units (Quarter) 12 weeks	Educational Points 1.5
Units (Quarter) 12 weeks 1 2	
1	1.5
1 2	1.5 3.5
1 2	1.5 3.5 5.5

Educational Point Substitution for Experience

Applicants may substitute 16 educational points for one year of experience; however, educational points cannot be used to substitute the 1,800 hours (or one year) of Operator-In-Training (OIT) experience. In other words, operators must work one year or 1,800 hours prior to being able to substitute educational points for experience. An applicant must retain the minimum educational points to qualify for their Grade level and have at least sixteen additional educational points available to substitute.

For example, a Grade II applicant with one year of experience and at least 28 educational points would be eligible to substitute 16 educational points for one year of experience. The applicant would have 12 points to satisfy the education requirement and 16 points to substitute for one year of experience. (28-16=12)

Once the 16 points are used to substitute for experience, they cannot be used again to substitute for experience at another grade level or qualify for a certification examination. Operators can substitute 16 educational points for one year of experience multiple times.

Acceptable High School Diplomas

Photocopies of high school diplomas and/or transcripts are acceptable. If submitting a transcript, it must be a copy of an official copy and clearly state the graduation date, the applicant's name, and the name of the high school. If applicants do not have a copy of their diploma or it has been misplaced, contact the high school or school district directly for a copy.

Acceptable High School Diploma Equivalents

Here is a list of acceptable high school diploma equivalents:

- General Educational Development Test (GED, administered by the GED Testing Service GEDTS).
- High School Equivalency Test (HisSET administered by ETS educational Testing Service).
- Test Assessing Secondary Completion (TASC administered by McGraw-Hill).
- The California High School Proficiency Examination (CHSPE) issued by the State of California Board of Education.

Community Colleges

Community colleges that offer certificate programs in wastewater are listed on pages 10 to 14. Community colleges offering only a few wastewater courses are listed separately on page 15. The prospective wastewater treatment plant operator should not confuse community college certification with certification by the WWOCP. A typical community college certification program requires the student to complete a program of study totaling approximately 23 semester units in wastewater and related topics. Certification by the State of California requires the qualified individual to pass an examination administered by the State Water Board, meet the experience and educational minimum requirements and submit a certification application with the applicable fee.

Even though a community college in your area may not be listed in this document, it is recommended that you inquire directly with your local college. Wastewater programs are in a continual state of change. Demand for courses and budget constraints often dictate scheduled offerings.

Universities

There are a few universities which offer correspondence coursework that includes wastewater manuals and online programs. These programs provide an excellent alternative for those individuals who are unable to attend a college or cannot find such courses offered in their vicinity.

The curriculum covers a variety of topics including tours of pre-treatment and wastewater treatment facilities. Contact the universities listed in the directory for more information.

Associations, Organizations, and Education Companies offering Courses, Classes or Seminar Coursework

There are various regional and statewide training organizations, and educational companies which provide wastewater training seminars, courses and classes. When a course has been completed, submit a copy of the certificate of completion that includes the name of the instructor and attendee, the course title, how many minutes or hours the course took, and a signature from the course instructor. Please note that the list of Associations and Organizations is not comprehensive nor does the WWOCP endorse any specific educational entity.

here To Go For More Information? For additional information, please contact:

Wastewater Operator Certification Program State Water Resources Control Board P.O. Box 944212 Sacramento, CA 94244-2120

(916) 341-5819

http://www.waterboards.ca.gov/water issues/programs/operator certification/operator ce r tification.shtml

OPERATOR CERTIFICATION REQUIREMENTS TABLE (Effective April 1, 2013)

Note: Applicants must take and pass the Office of Operator Certification Wastewater Treatment Plant Operator Examination before applying for Certification.

PATH	EXAMINATION EDUCATION		CERTIFICATION
	REQUIREMENTS		QUALIFYING EXPERIENCE REQUIREMENTS
GRADE I			
1	High school diploma or equivalent and 6 educational points	and	1 year of full-time qualifying experience
GRADE II			
1	High school diploma or equivalent and 9 educational points	and	18 months of full-time qualifying experience as a Grade I operator
2	High school diploma or equivalent and 12 educational points	and	2 years of full-time qualifying experience
3	Associate's degree, a higher degree, or a minimum of 60 college semester units, including a minimum of 15 semester units of science courses	and	1 year of full-time qualifying experience
GRADE III			
1	High school diploma or equivalent and 12 educational points	and	3 years of full-time qualifying experience as a Grade II operator
2	High school diploma or equivalent and 18 educational points	and	4 years of full-time qualifying experience
3	Associate's degree or a minimum of 60 college semester units, including a minimum of 15 semester units of science courses	and	2 years of full-time qualifying experience
4	Bachelor's degree or a higher degree, including a minimum of 30 semester units of science courses	and	1 year of full-time qualifying experience

GRADE IV			
1	High school diploma or equivalent and 32 educational points	and	6 years of full-time qualifying experience
2	Associate's degree or a minimum of 60 college semester units, including a minimum of 15 semester units of science courses	and	4 years of full-time qualifying experience
3	Bachelor's degree or a higher degree, including a minimum of 30 semester units of science courses	and	3 years of full-time qualifying experience
4 GRADE V	Valid registration as a chemical, civil, or mechanical engineer issued by the California Board for Professional Engineers and Land Surveyors or by another state, territory, or Indian tribe	and	2 years of full-time qualifying experience
1	High school diploma or equivalent and 48 educational points	and	10 years full-time qualifying experience
2	Associate's degree or a minimum of 60 college semester units, including a minimum of 15 semester units of science courses	and	6 years of full-time qualifying experience
3	Bachelor's degree or a higher degree, including a minimum of 30 semester units of science courses	and	5 years of full-time qualifying experience
4	Valid registration as a chemical, civil, or mechanical engineer issued by the California Board for Professional Engineers and Land Surveyors or by another state, a territory, or an Indian tribe	and	4 years of full-time qualifying experience

(Visit website for course information)

College of the Canyons

26455 Rockwell Canyon Road Santa Clarita, CA 91355 www.canyons.edu/

College of the Canyons Program is administered by the Water Systems Technology Program.

http://www.canyons.edu/Departments/WATER/Pages/default.aspx

Degree Information

Associate of Science Degree in Water Systems Technology, can emphasize in Wastewater Certificate Of achievement in Water Systems Technology, can emphasize in Wastewater

Cuyamaca College

900 Rancho San Diego Parkway El Cajon, CA 92019 http://www.cuyamaca.edu/

Cuyamaca College's Wastewater Treatment Plant Operator's Program is administered by the Water and Wastewater Technology Program.

http://www.cuyamaca.edu/academics/departments/wwtr/default.aspx

Degree Information

Associate of Science Degree in Wastewater Treatment Plant Operations Certificate in Wastewater Treatment

Folsom Lake College – Los Rios Community College District

10 College Parkway, Folsom, CA 95630 http://www.flc.losrios.edu/

Folsom Lake College's Waste Water Management program is administered by the Environmental Technology Department.

http://www.flc.losrios.edu/academics/waste-water-management

Degree Information

Certificate in Wastewater Management

(Visit website for course information)

Imperial Valley College

380 East Aten Road Imperial, CA 92251 www.imperial.edu

Imperial Valley College's Water Treatment Systems Technology Program is administered by the Division of Industrial Technology.

Degree Information

Associate Degree in Water Treatment Systems Technology Certificate in Waste Water Systems Technology Specialization Certificate in Wastewater Systems Technology - Wastewater Treatment

Los Angeles Trade-Technical College

400 West Washington Boulevard Los Angeles, CA 90015 www.lattc.edu

Los Angeles Trade-Technical College's wastewater program is administered by the Department of Science and Mathematics.

http://college.lattc.edu/catalog/files/2014/09/WaterSystemsTechnology.pdf

Degree Information

Associate Degree in Water Systems Technology Certificate in Water Systems Technology – Wastewater Option

Mt. San Jacinto College

San Jacinto Campus 1499 N. State St. San Jacinto, CA 92583

Menifee Valley Campus 28237 La Piedra Rd. Menifee, CA 92584

http://www.msjc.edu/Pages/default.aspx

Mt. San Jacinto College's Program is administered by the Water Technology Program. http://www.msjc.edu/InstructionalPrograms/Documents/WATR.pdf

Degree Information

Non-Transfer Degree Associate Degree in Water Technology Certificate in Wastewater Treatment Operator

(Visit website for course information)

Palomar College

1140 West Mission Avenue San Marcos, CA 92069 www.palomar.edu

Palomar College's wastewater program is administered by the Department of Occupational and.

https://www2.palomar.edu/pages/watertech/catalog/

Degree Information

Associate in Wastewater Technology Education Certificate in Wastewater Technology of Achievement

Santa Barbara City College

721 Cliff Drive Santa Barbara, CA 93109 http://www.sbcc.edu/

Santa Barbara City College's Wastewater Technology Education Certification of Achievement program is administered by the Water Science Department.

http://www.sbcc.edu/waterscience

Degree Information

Certificate of Achievement

Santa Rosa City College

1501 Mendocino Avenue Santa Rosa, CA 95401 https://www.santarosa.edu

Santa Rosa City College's Wastewater Treatment Operators Major is administered by the Engineering and Applied Technology Department.

https://portal.santarosa.edu/SRWeb/SR_ProgramOfStudy.aspx?ProgramType=1&Program=003333

Degree Information

Associate Degree or Certificate of Achievement in Wastewater Treatment Operations.

(Visit website for course information)

Santiago Canyon College

8045 East Chapman Avenue Orange, CA 92869

www.sccollege.edu

Santiago Canyon College's Wastewater/Environmental Sanitation Program is administered by the Water Utility Science Department.

http://www.sccollege.edu/Departments/CareerEd/WaterSci/Pages/default.aspx

Degree Information

Associate Degree or Certificate of Achievement in Wastewater/Environmental Sanitation

Shasta College

11555 Old Oregon Trail Redding, CA 96049-6006 www.shastacollege.edu

Shasta College's wastewater program is administered by the Center for Science, Industry and Natural Resources.

http://www.shastacollege.edu/Academic%20Affairs/BAIT/WTT/WTT%20PDFs/WATER.Wastewater%20Treatment%20Cert%201213.pdf

Degree Information

Certificate in Water/Wastewater Treatment

Solano Community College

4000 Suisun Valley Road Fairfield, CA 94534 www.solano.edu

Solano Community College's wastewater program is administered by the Gainful Employment Program.

http://www.solano.edu/degrees/1516/water.pdf

Degree Information

Associate Degree or Certificate in Water and Wastewater Technology

(Visit website for course information)

Ventura College 4667 Telegraph Road Ventura, CA 93003 www.venturacollege.edu

Ventura College's Wastewater Program is administered by the Department of Industry and Technology. http://www.venturacollege.edu/departments/academic/water-science

Degree Information

Associate Degree or Certificate in Water Science and can choose to concentrate in Wastewater

Adult Education Offering Wastewater Programs

(Visit website for course information)

Castro Valley Adult & Career Education

4430 Alma Ave. Castro Valley, CA 94546 http://www.cvadult.org

Castro Valley's Adult and Career Education's modern wastewater program is administered by the Castro Valley Adult & Career Education.

http://www.cvadult.org/for-students/programs/career-education/wastewater-treatment

Community Colleges Offering One or More Wastewater Courses

(Visit website for course information)

Bakersfield College

1801 Panorama Drive Bakersfield, CA 93305 (661) 395-4011 www.bakersfieldcollege.edu

College of the Sequoias

915 South Mooney Blvd. Visalia, CA 93277 (559) 730-3700 www.cos.edu

Merced College

3600 M Street Merced, CA 95348 (209)384-6171 www.mccd.edu

Sacramento City College

3835 Freeport Blvd. Sacramento, CA 95822 (916) 558-2351 http://www.scc.losrios.edu

San Bernardino Valley College

701 S. Mt Vernon Ave. San Bernardino, CA 92410 (916) 558-2351 https://www.valleycollege.edu/

Universities and Schools Offering Wastewater Training or Technology Courses

(Visit website for course information)

Office of Water Programs California State University, Sacramento

6000 J Street Sacramento, CA 95819-6025 www.owp.csus.edu

The Office of Water Programs at California State University, Sacramento (CSUS) offers a series of self-study manuals in wastewater treatment. Students study at their own pace, complete the test for continuing education units (CEUs) for each of the volumes, and mail it to CSUS for grading and comment.

Companies Offering Wastewater Training

(Visit website for course information)

American Water College

P.O. BOX 348614
Sacramento, CA 95834
http://www.americanwatercollege.org/index.php

CEU Plan

https://www.ceuplan.com/

OCT Water Quality Academy

4600 Roseville Rd. Ste 190 North Highlands, CA 95660 www.octwqa.org

WasteWater Technology Trainers

2424 Donner Way Sacramento, CA 95818 www.wastewatertechnologytrainers.com

Wastewater Associations

(Visit website for course information)

California Water Environment Associations (CWEA)

7677 Oakport Street Oakland, CA 94621 www.cwea.org

California Rural Water Association

1234 N. Market Blvd. Sacramento, CA 95834 www.calruralwater.org

Water Environment Federation

601 Wythe Street Alexandria, VA 22314 www.wef.org