

Mary Woo

Lead Faculty

📍 4667 Telegraph Rd.
Ventura, CA 93003

📞 805-289-6162

✉️ mwoo@vccd.edu

Felicia Duenas

Dean Career Education II

📍 4667 Telegraph Road MCW 315
Ventura, CA 93003

📞 805-289-6430

✉️ fduenas@vccd.edu



For more information:

805.289.6430

www.venturacollege.edu/careered

Calleguas Purveyor Managers Meeting

August 22, 2024



Agenda

- Introduction to the Ventura College Water Science Program
 - Water Science News
 - Internships and Apprenticeships
 - Advanced Water Treatment Certificate (in the works)
 - Advisory Council Meetings
- 

Introduction to the Water Science Program



Water Science a Career Education Program



Academic

Explore Academic Offerings and Divisions

- Academic Programs and Courses →
- Division of Art, Library, Languages, Social and Behavioral Sciences →
- Division of Career Education →
- Division of English, Math, and Communication Studies →
- Division of Health, Kinesiology, Athletics, and Performing Arts →
- Division of Sciences and Distance Education →



Agriculture



Automotive Career Education & Diesel Mechanics



Business



Child Development & Elementary Teacher Education



Criminal Justice



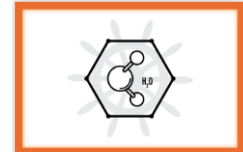
Nursing & Emergency Medical Services



Architecture, Drafting, & Construction



Manufacturing & Welding



Water Science

Water Science Faculty



Saeedreza Hafeznezami



Ron Ventura



Joanna Capazzi



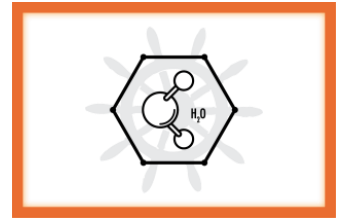
Mary Woo



Ewelina Mutkowska

New!

Water Science - Vision



- Prepare students for water and wastewater state certification exams
- Offer CEUs to working operators
- Support local treatment facilities with educated individuals
- Improve public awareness of water science
- Future: Advanced Treatment Cert, Water Conservation, Agriculture and Process Water, AI in Water Treatment, Stormwater Management

VC Water Science Classes

WATER OPTION		WASTEWATER OPTION	
V11	Water Treatment	V10	Basic Water and Wastewater Systems
V14	Water Distribution	V12	Wastewater Treatment
V19	Advanced Water Treatment	V13	Wastewater Collection


COMMON REQUIRED COURSES


V15	Water Systems Instrumentation and Controls
V16	Water Quality Protection and Cross-Connection Control
V17	Water and Wastewater Hydraulics
V18	Motors and Pumps Maintenance and Operation
V21	Water Chemistry and Bacteriology
V25	Water and Wastewater Management

Water Science: Wastewater

Certificate of Achievement

28.0 Units

■ Major Course
 ■ General Education Course
 ■ Elective Course
 ■ Milestone
 |  Offers Microcredential

<p>Fall 1st Term</p> <p>12.0 UNITS</p>	<p>WS V10 MAJ 3.0 Units Basic Water & Wastewater</p>	<p>WS V12 MAJ 3.0 Units Wastewater Treatment</p>	<p>WS V13 MAJ 3.0 Units Wastewater Collection</p>	<p>WS V25 MAJ 3.0 Units Water & Wastewater Management</p>
<p>Spring 2nd Term</p> <p>16.0 UNITS</p>	<p>WS V15 MAJ 3.0 Units Water Systems Instrum&Control</p>	<p>WS V16 MAJ 3.0 Units Water Quality Protect&Control</p>	<p>WS V17 MAJ 3.0 Units Water&Wastewater Hydraulics</p>	<p>WS V18 MAJ 3.0 Units Motors&Pumps Maint & Operation</p>
<p></p>	<p>Water Science: Wastewater - Certificate of Achievement 28.0 units</p>			

Water Science: Wastewater

Associate in Science

60.0 Units

■ Major Course
 ■ General Education Course
 ■ Elective Course
 ■ Milestone
 |
 Ⓞ Offers Microcredential

<p>Fall 1st Term</p>	<p>WS V10 MAJ 3.0 Units Basic Water & Wastewater</p>	<p>WS V12 MAJ 3.0 Units Wastewater Treatment</p>	<p>Mathematics GEN 3.0 Units Choose a course</p>	<p>General Ed Area B2: Social/Behavioral Sciences GEN 3.0 Units Choose a course</p>
<p>15.0 UNITS</p>	<p>General Ed Area A1: Natural Sciences GEN 3.0 Units Choose a course</p>			
<p>Spring 2nd Term</p>	<p>WS V15 MAJ 3.0 Units Water Systems Instrum&Control</p>	<p>WS V16 MAJ 3.0 Units Water Quality Protect&Control</p>	<p>WS V21 MAJ 4.0 Units Water Chemistry&Bacteriology</p>	<p>ENGL V01A GEN 4.0 Units English Composition</p>
<p>15.0 UNITS</p>	<p>General Ed Area E2: Physical Education/Kinesiology GEN 1.0 Units Choose a course</p>			
<p>Fall 3rd Term</p>	<p>WS V13 MAJ 3.0 Units Wastewater Collection</p>	<p>WS V25 MAJ 3.0 Units Water & Wastewater Management</p>	<p>General Ed Area C1: Fine/Performing Arts GEN 3.0 Units Choose a course</p>	<p>General Ed Area B1: American History/Institutions GEN 3.0 Units Choose a course</p>
<p>15.0 UNITS</p>	<p>General Ed Area E1: Health Education GEN 3.0 Units Choose a course</p>			
<p>Spring 4th Term</p>	<p>WS V17 MAJ 3.0 Units Water&Wastewater Hydraulics</p>	<p>WS V18 MAJ 3.0 Units Motors&Pumps Maint & Operation</p>	<p>General Ed Area A2: Physical Science GEN 3.0 Units Choose a course</p>	<p>General Ed Area C2: Humanities GEN 3.0 Units Choose a course</p>
<p>15.0 UNITS</p>	<p>General Ed Area F: Ethnic/Gender Studies GEN 3.0 Units Choose a course</p>			

Water Science Associates in Science

Water Science Certificate Classes	28 units
General Education Classes	32 units

2 yrs for Full-Time Students

3 yrs for Part-Time Students

VENTURA COLLEGE FALL 24' WATER SCIENCE SCHEDULE

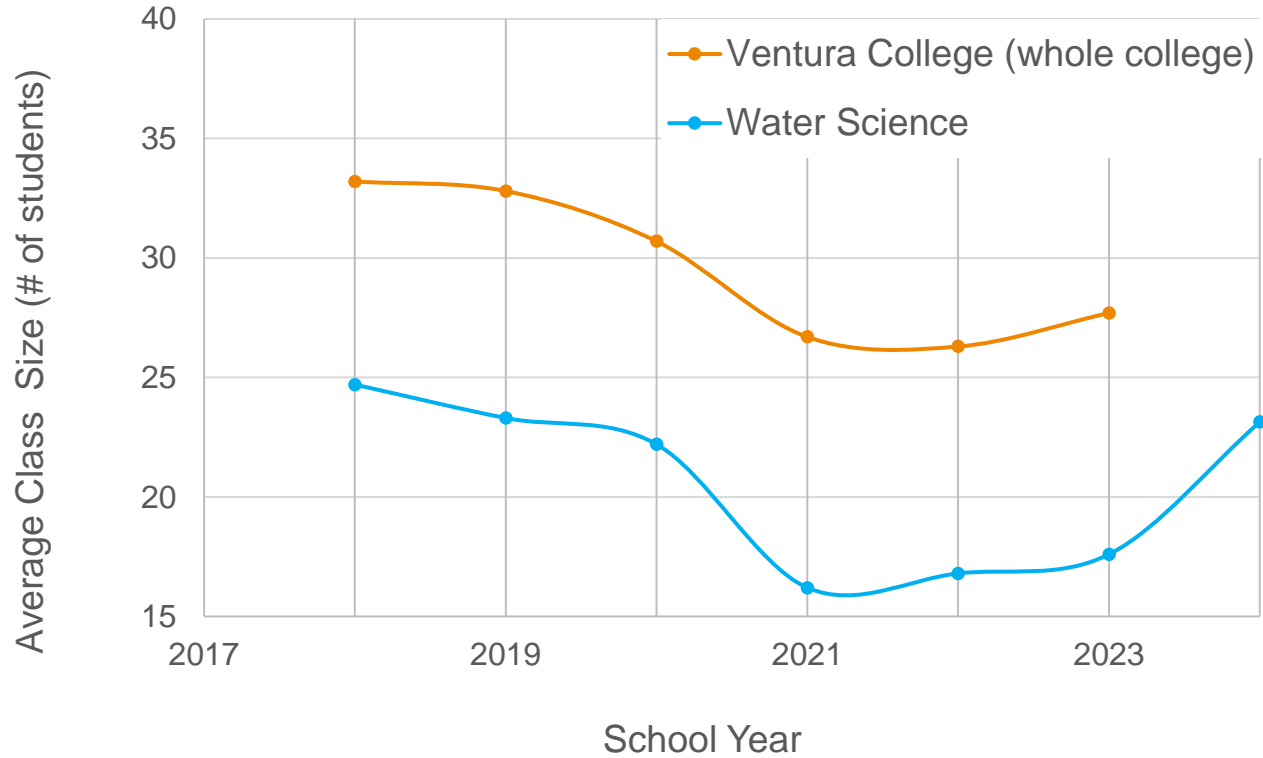


Courses begin Aug 12th & end Dec 13th, 2024

(Total Course Length = 18 Weeks)

CRN:	CLASS:	UNITS:	TIME:	DAYS:	TYPE:
71488	WS V10 Basic Water and Wastewater Systems	3	5:30pm - 6:45pm	Mon	ONLINE
70616	WS V11 Water Treatment	3	7:00pm - 8:15pm	Wed	ONLINE
70255	WS V12 Wastewater Treatment	3	5:30pm - 6:45pm	Tues, Thurs	IN-PERSON
71519	WS V14 Water Distribution	3	7:00pm - 8:15pm	Tues, Thurs	IN-PERSON
70950	WS V15 Water System Instrumentation and Controls	3	7:00pm - 8:15pm	Mon	HYBRID
70238	WS V22 – Stormwater Pollution Prevention	3	5:30pm - 6:45pm	Mon, Wed	ONLINE
71526	WS V25 – Water and Wastewater Management	3	8:30pm – 9:20 pm	Tues	ONLINE

Enrollment Data



Enrollment Data

Course	Course Title	2018-19	2019-20	2020-21	2021-22	2022-2023	2023-2024	2024-2025
WS V10	Basic Water & Wastewater		23	37	28	23	21	25
WS V11	Water Treatment	31	27	20	15	16	25	36
WS V12	Wastewater Treatment	21	32	20	15	11	10	20
WS V13	Wastewater Collection	28	20	17	5	9	10	
WS V14	Water Distribution	31	25	19	11	11	20	26
WS V15	Water Systems Instrum + Control	37		27	18	21	28	18
WS V16	Water Quality Protect + Control	25.5	27.5	26	20	25	17	
WS V17	Water + Wastewater Hydraulics	34	26	29	25	9	17	
WS V18	Motors, Pumps Maint + Operation	26.5	26	32	24	14	20	
WS V19	Advanced Water Treatment	22	27	15	11	22	16	
WS V20	Water System Mathematics	15	-	-	-	-	-	
WS V21	Water Chemistry & Bacteriology	25	16	13.5	7	17	11	
WS V22	Stormwater Pollution Prevent	19	15	10	-	-	-	15
WS V25	Water + Wastewater Management	29	15	23	16	23	16	22
WS V95	Water Science Internship I	1.3	-	-	-	-	-	
	Water Science Average	24.7	23.3	22.2	16.2	16.8	17.8	23
	Ventura College	33.2	32.8	30.7	26.7	26.3	27.7	

Water Science News



Outreach - World Toilet Day 2023



~50 people total
students, professionals, families
will return 2024!



Stormwater Class Offered this Fall!



**STORMWATER POLLUTION PREVENTION
VC WATER SCIENCE**

Interested in stormwater management?
How to protect stormwater when it's not raining?
Ever wonder about harvesting rainwater?
What are BMPs or SWPPPs?

This course will provide you with an overview of stormwater regulations including National Pollutant Discharge Elimination (NPDES) permitting program and stormwater permits for industrial facilities, construction sites, and municipal operations. You will learn about the Stormwater Pollution Prevention Plans (SWPPPs), potential sources of stormwater pollution, methods to prevent and control stormwater pollution, Best Management Practices (BMPs), illicit discharge detection and elimination (IDDE) program, and stormwater monitoring and reporting programs. You will find out about professional certifications such as Qualified SWPPP Developer (QSD), Qualified Industrial Stormwater Professional (QISP), and others.

Live Online Course via Zoom

Water Science - V22
Fall 2024 (Aug 12 - Dec 13)
M W 5:30 pm - 6:45 pm
Ewelina Mutkowska, M.Sc.
emutkowska@vcccd.edu



Ewelina Mutkowska

Facility Tours

Ventura Purification Plant



Ventura Reclamation Plant



County of Ventura Reclamation Plant

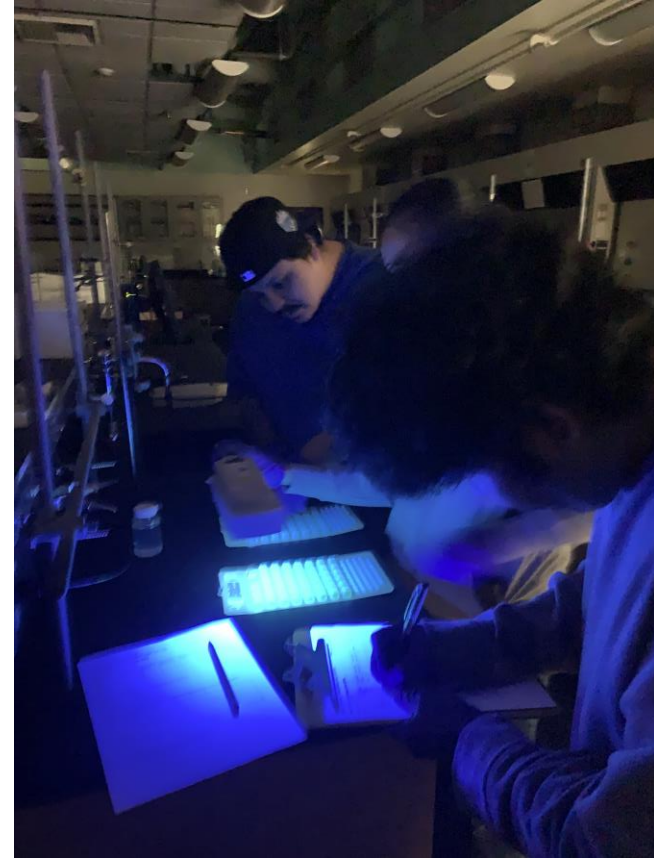


Labs

Hydraulics



Water Quality



Future Labs

Process Control and
Instrumentation (SCADA)



Student Updates

Student Updates (that I know about) Fall 2022 to Spring 2024

3 students, full T2 Operators

8 students, OIT Positions

3 student interns

2 students volunteering at Ventura Reclamation Facility

>10 students, returning professionals

This shows the needs for an Alumni website!

City of Ventura and CWEA

Vince Ines is coordinating with CWEA to hold operator workshops on the VC campus!



AWA of Ventura County

Four students and I are attending the annual Water Symposium tomorrow. AWA sponsored the four students!



Association of Water Agencies
Ventura County

Internships and Apprenticeships



City of Santa Barbara Internship

Paid internship through the city

Offered to VC Water Science Students

Starts for the Fall 2024 semester

Two days a week roughly 6:30 am to 3:30 pm

Students will enroll in WS V96 (keeps units as a full-time)



Requested that students have completed the following classes:

Water Distribution Internship: V10 or V11 and V14

Wastewater Collections Internship: V10, V13, V17

Other Internships

Montecito Water District
Temporary Employee Position (1 year)



Ventura Reclamation Facility
volunteer, shadow operators, OIT hours (flexible)

WASTEWATER



On the Look Out

California Municipal Utilities Association (CMUA)

EPA Innovative Water Infrastructure Workforce Development Grant Program via the Infrastructure Investment and Jobs Act (IIJA) | up to \$1,000,000 | [URL](#)

On the Look Out



FIND A COLLEGE ENROLL NOW DATA NEWS & MEDIA CAREERS CONTACT

HOME STUDENTS ▾ COLLEGE PROFESSIONALS ▾ ABOUT US ▾ SEARCH 🔍

Home — About Us — Chancellor's Office — Offices and Divisions — Workforce & Economic Development — Apprenticeship Programs — **New Pre-Apprenticeship and**

Apprenticeship Initiatives

New Pre-Apprenticeship and Apprenticeship Initiatives

Apprenticeship Innovation Funding

The Apprenticeship Innovation Funding (AIF) is a new funding source offered by the State of California Department of Apprenticeship Standards (DAS). AIF as of 2022 offers new and innovative apprenticeship programs, defined as apprenticeships associated with Interagency Advisory Committee on Apprenticeships (IACA) support sponsors to sustain and scale their programs and train apprentices. Visit the [DAS Apprenticeship Innovation Funding \(AIF\) website](#) for more information.

New Economy Apprenticeship Grants

The U.S. Department of Labor has made \$200 million available in grants to continue to support public-private partnerships that expand, diversify and strengthen Registered Apprenticeship in high-growth, new economy occupations.

California Apprenticeship Initiative

**New Pre-Apprenticeship and
Apprenticeship Initiatives**

Apprenticeship Pathways
Demonstration Project

Related and Supplemental Instruction
Reimbursement (RSI) Program

Advanced Water Treatment (AWT) Certificate at Ventura College



AWT - Areas of Study

Content Domains	Grade 3 100 questions	Grade 4 85 questions	Grade 5 70 questions
Source Water	3%	4%	3%
Advanced Water Treatment Processes	40%	40%	24%
Advanced Water Treatment Support Processes	11%	14%	4%
Advanced Treated Water Management	3%	4%	3%
Operations and Maintenance	16%	18%	14%
Controls and Monitoring	6%	6%	13%
Laboratory	12%	7%	1%
Regulations and Reporting	2%	2%	10%
Safety	6%	6%	29%

AWT Certificate at VC

Questions Discussed with our Advisory Council

1. Can we use any current Water Science classes in the AWT certificate?
2. Can we use classes from other VC programs in the certificate?
3. Should students meet a minimum qualification to enter the AWT certificate?
4. What are some potential classes to offer for the certificate?

Next Advisory Council Meetings

FALL

Wednesday, November 6, 2024
11:00 am – 1:00 pm

SPRING

Wednesday, April 23, 2024
11:00 am – 1:00 pm

THANK YOU!

