WATER QUALITY, ASSOCIATE OF APPLIED SCIENCE

Program Description

The Water Quality Technology, AAS degree, prepares students for a career in water quality operations through an integrated curriculum of core water quality technology courses, STEM elective courses, general education courses, and hands-on work-based learning. The degree includes five introductory courses in water and wastewater operations, 24-credit hours of related cooperative work experience, foundational courses in math and science, and STEM elective courses. The degree prepares students to take the Level I Operator Certification exams for water and wastewater. The cooperative work experience is hands on training and is equivalent to approximately 5 months of full-time work experience.

Program Outcomes

1. Explain the terms and concepts, including the mathematical skills necessary to pass the Level I water and wastewater certification examinations
2. Explain the maintenance and operation of water treatment, water distribution, wastewater treatment, and wastewater collection systems relative to operator job responsibilities
3. Express concepts, ideas, technical principles, and feedback in a manner that promotes understanding and encourages cooperation and collaboration
4. Apply laboratory sampling and testing methods approved by regulatory agencies to water quality and treatment process performance reporting
5. Analyze quantitative water and wastewater relationships using mathematics, equations, and graphs to determine plans of action consistent with industry protocols

Program Course Requirements

Course	Title	Credits
First Year		
First Term		
BI 101	General Biology	4
MTH 065	Elementary Algebra (or higher)	4
WQT 226	Wastewater Treatment I Liquid	3
WQT 261	Water Distribution	3
WQT 280	CWE-Water Quality Treatment	4
	Credits	**18**
Second Term		
BI 102	General Biology	4
WR 121Z	Composition I	4
WQT 227	Wastewater Treatment II Solids	3
WQT 228	Wastewater Collection	3
WQT 280	CWE-Water Quality Treatment	4
	Credits	**18**
Third Term		
BI 103	General Biology	4
COM 111Z	Public Speaking	4
WQT 260	Water Treatment	3
WQT 280	CWE-Water Quality Treatment	4
	Credits	**15**
Second Year		
First Term		
CH 104	Intro to Chemistry I	4
ENGR 111	Engineering Orientation I	3
SDP 113	Human Relations-Supervisors	3
WQT 280	CWE-Water Quality Treatment	4
	Credits	**14**
Second Term		
COM 105	Listening	3
NR 221	Water Resource Science	4
PSY 101	Psychology of Human Relations	3
WQT 280	CWE-Water Quality Treatment	4
	Credits	**14**
Third Term		
CIS 120	Intro to Digital Literacy	4
ENGR 112A	Problem Solving and Tech Pt 1	2
ENGR 112B	Problem Solving and Tech Pt 2	1
SOIL 205	Soil Science	3
SOIL 206	Soil Science Lab	1
WQT 280	CWE-Water Quality Treatment	4
	Credits	**15**
	Total Minimum Credits	**94**

Advising Notes

- See advisor for full list of course options