WATER QUALITY, ASSOCIATE OF APPLIED SCIENCE

The Water Quality, 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 (CWE), 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 STUDENT LEARNING OUTCOMES

- Explain the terms and concepts, including the mathematical skills necessary to pass the Level I Water and Wastewater Certification examinations.
- Explain the maintenance and operation of water treatment, water distribution, wastewater treatment, and wastewater collection systems relative to operator job responsibilities.
- Express concepts, ideas, technical principles, and feedback in a manner that promotes understanding and encourages cooperation and collaboration.
- Apply laboratory sampling and testing methods approved by regulatory agencies to water quality and treatment process performance reporting.

GRADUATION REQUIREMENTS

Students must complete a minimum of 93 credit hours with a cumulative Grade Point Average (GPA) of 2.0 or better. All courses must be completed with a grade of 'C' or better. Twenty-four (24) credits must be completed at Southwestern before the degree is awarded.

Complete the graduation application process one term prior to the term of completion (e.g., spring term graduates must apply during winter term).

Math and writing placement are unique to each student and are determined during the admissions and intake advising process. Additional math or writing courses may be required prior to taking the math or writing program requirements in this degree.

PROGRAM GUIDE

Course	Title	Credits
Prerequisites		
Fall		
Placement into WR121Z or completion of WR90R		
Placement into MTH65 or higher		
	Credits	**0**
First Year		
Fall		
BI221Z	Principles of Biology: Cells [5]	5
ENV235	Introduction to Soil Science	4
WQT226	Wastewater Treatment I - Liquids	3
WQT261	Water Distribution	4
	Credits	**16**
Winter		
BI102	General Biology	4
WQT227	Wastewater Treatment II - Solids	3
WQT228	Wastewater Collection Systems	3
WQT280	CWE: Water Quality Treatment [3]	4
	Credits	**14**
Spring		
MTH65	Beginning Algebra [1]	4
NR260	Watershed Processes	4
WQT260	Water Treatment	3
WQT280	CWE: Water Quality Treatment [3]	5
	Credits	**16**
Second Year		
Fall		
ENGR111	Intro to Engineering [4]	3
MEC100	Mechanical Systems I	3
WR115	Fundamentals of Report Writing	4
WQT280	CWE: Water Quality Treatment [3]	4
	Credits	**14**
Winter		
BI234	Microbiology	4
CHEM104Z & CHEM124Z	Introduction To Chemistry and Introduction To Chemistry Lab	5
WQT280	CWE: Water Quality Treatment [3]	8
	Credits	**17**
Spring		
BA169Z	Data Analysis Using Microsoft Excel	4
BA224	Human Resource Management	4
COMM218Z	Interpersonal Communication [2]	4
WQT280	CWE: Water Quality Treatment [3]	4
	Credits	**16**
	Total Credits	**93**

1. This course may be substituted for a higher math course, excluding: MTH98, MTH211 - MTH213. STAT243Z will also meet this requirement.
2. This course may be substituted for COMM100Z, COMM111Z, or COMM219.
3. Call 541-888-7405 to schedule with the Internship Coordinator one month prior to term.
4. The math prerequisite for ENGR111 will be waived through instructor consent for students in the Water Quality program who complete MTH65 or higher.
5. BI112 may be substituted for this requirement.