



Red Rocks Community College’s Associate of Applied Science (AAS) degree in Water Quality Management Technology (WQM) is a two-year full-time program.



Funded in part by the National Science Foundation and TAA-Department of Labor

The Associate of Applied Science degree in Water Quality Management Technology requires 64 credit hours. WQM also has nine stackable, discipline-specific certificates based on course combinations and enrollment. Students can take certificate courses in lieu of or in addition to a degree. The WQM program works closely with the Environmental Protection Agency and the Colorado Department of Public Health and Environment. The program also follows the national Association of Boards of Certification knowledge criteria to ensure that students obtain the skills and knowledge needed for all careers within the industry.

Academic courses include hands-on training in water, wastewater, and industrial treatment and water distribution and wastewater collection systems. WQM is a technical science program that includes math, chemistry and microbiology. Grants from the National Science Foundation and the TAA-Department of Labor funded the development, redesign and adaptation of many WQM courses for hybrid and distance learning. Check the semester schedule for online course offerings.

Classes are scheduled to accommodate working adults, with most starting at 6 p.m.

Required Core AAS Courses Specific to the WQM Program (34 credits)*

- WQM 100 Introduction to Water Quality
- WQM 105 Specific Calculations
- WQM 119 Basic Water Analysis
- WQM 120 Equipment Maintenance
- WQM 126 Safety and Security Systems
- WQM 200 Hydraulics
- WQM 206 Design Interpretations
- WQM 216 Biological and Bacteriological Analysis
- WQM 217 Disinfection Techniques

*Some WQM Core Course substitutions are available.

Total 34 Credits

AAS Required General Education Courses for the WQM Program (18 credits)

- ENG 121 – English Comprehension or
COM 125 – Communication 3 credits
- MAT 107 – Career Math or
MAT 121 – College Algebra–or higher to transfer 3 credits
- (Recommended)*
- CIS 118 – Introduction to PC Applications 3 credits
- GIS 101 – Introduction to Information
Mapping Systems 3 credits
- CHE 101 – Chemistry or 5 credits
- ECO 245 – Environmental Economics 3 credits
- Any other Humanity or Behavioral or Physical Science course 3 credits*

*Must be from different group than CHE and ECO

Total 18 credits (Minimum)

more...



Approved Elective Courses Specific to the WQM Program (12 credits)
(Applied Science courses can be substituted for WQM electives with Department Chair approval.)

WQM 109 Distribution Systems*	
WQM 118 Wastewater Collection Systems*	
WQM 121 Environmental Sampling and Volume Measurement	
WQM 122 Instrumentation and Electrical Control	
WQM 123 Reuse Systems	
WQM 124 C and D Review for Water Treatment *	
WQM 125 C and D Review for Wastewater Treatment *	
WQM 130 Water Chemistry	
WQM 131 Solids Waste Management	
WQM 140 Management and District Leadership	
WQM 150 Troubleshooting	
WQM 160 Source Water Management	
WQM 165 Water Law	
WQM 169 International Development	
WQM 207 Activated Sludge Systems	
WQM 212 Drinking Water Regulations	
WQM 224 A and B Review for Water Treatment *	
WQM 225 A and B Review for Wastewater Treatment *	
WQM 230 Industrial Treatment and Monitoring	
WQM 280 Internships	
WQM 285 Independent Study	Total 12 Credits

*Certificate courses strongly recommended for State of Colorado Water/Wastewater Operator/Technician License prep. Students are encouraged to pursue as many discipline licenses as possible.

TOTAL Credits for the degree: 64



Many WQM activities are supported by one or both of the following grants:

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