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

The Associate of Applied Science degree in Water Quality Management Technology requires 62 credit hours. WQM also has eight stackable, discipline-specific certificates based on course combinations and enrollment. Students can take certificate courses in lieu of or in addition to seeking 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.

Past related work experience can be applied towards your degree in some cases. If you are interested in learning more about CPLs (Credit for Prior Learning), visit http://www.rrcc.edu/assessment/credit-for-prior-learning or contact the department at 303-914-6121. You are held to the graduation requirements of the academic catalog you begin under. Changes to the curriculum while enrolled will not affect your degree requirements. Satisfactory completion, grade of C or higher, is mandatory for all core WQM and certificate coursework.

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

- WQM 100 Introduction to Water Quality
- WQM 105 Specific Calculations
- WQM 119 Quality 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

Total 34 Credits

AAS Required General Education Courses for the WQM Program (16 credits)

- ENG 121 – English Comprehension
- ENG 131 – Technical Writing, OR
- COM 125 – Interpersonal Communication 3 credits
- MAT 107 – Career Math OR
- MA T 121 – College Algebra—or higher to transfer (Recommended) 3 credits
- BUS 121 – Basic Workplace Skills 1 credit
- GIS 101 – Introduction to Geographic Information Systems 3 credits
- Natural & Physical Science course 3 credit minimum
- Any other Arts & Humanities OR Social & Behavioral Science course 3 credits*

*Two courses must be from different groups

Total 16 credits (Minimum)

more...
Approved Elective Courses Specific to the WQM Program (12 credits)
(Appplied 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 150 Troubleshooting
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 License prep. Students are encouraged to pursue as many discipline licenses as possible.

TOTAL Credits for the degree: 62