



**2017-2018 PROGRAM REQUIREMENTS**  
**Degree: Technical Certificate**  
**Program of Study: Water Quality Management**  
**Specialization: Mathematics in Water Quality**

**About This Major . . .**

Technical Certificate- Mathematics in Water Quality program prepares students for entry-level employment as technicians in the water processing industry. Water quality technicians work in teams to operate drinking water treatment systems and wastewater treatment systems. The program provides an understanding of the regulatory expectations, the science involved in meeting regulatory expectations, the equipment used to process water and the systems management skills necessary to be a successful employee in the water processing industry. The program consists of eight Technical Certifications and an Associates of Applied Science degree. The Mathematics in Water Quality technical certificate focuses on math associated with Water Quality.

For more information on what you can do with this major, go to <http://www.coloradomesa.edu/wccc/programs.html>

All CMU associate graduates are expected to demonstrate proficiency in critical thinking, communication fluency, quantitative fluency, and specialized knowledge/applied learning. In addition to these campus-wide student learning outcomes, graduates of this major will be able to:

1. Apply business communication using listening, verbal and written, and electronic forms that are needed for entry level employment. (Communication)
1. Apply Mathematical and applied physics concepts for industry to meet employment requirements (Quantitative Fluency)
2. Research, evaluate, synthesize and apply information/data relevant to business, sciences, and technical careers. (Critical Thinking)
3. Demonstrate knowledge of terminology, symbols, business practices, and principles and application of associated technical skills. (Specialized Knowledge)
4. Perform the necessary applied skill sets to fulfill the needs of entry level employment. (Applied Learning)
5. Demonstrate ethical, civic, and work place responsibility as part of professional behavior. (Specialized Knowledge)

**Advising Process and DegreeWorks**

This document is intended for informational purposes to help determine what courses and associated requirements are needed to earn a certificate. Some courses are critical to complete in specific semesters while others may be moved around. Meeting with an academic advisor is essential in planning courses and discussing the suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for her/his intended certificate.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a certificate and determine eligibility for graduation. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their advisor or academic department head. Discrepancies in requirements should be reported to the Registrar's Office.

**Graduation Process**

Students must complete the following in the first two months of the semester prior to completing their certificate requirements (for one semester certificates complete in the first week of class):

- Review their DegreeWorks audit and create a plan that outlines how unmet requirements will be met in the final semester.
- Meet with their advisor and modify their plan as needed. The advisor must approve the final plan.
- Submit the "Intent to Graduate" form to the Registrar's Office to officially declare the intended graduation date and commencement ceremony plans.
- Register for all needed courses and complete all requirements for each degree sought.

Submission deadlines and commencement details can be found at <http://www.coloradomesa.edu/registrar/graduation.html>.

If a student's petition for graduation is denied, it will be her/his responsibility to consult the Registrar's Office regarding next steps.

### **INSTITUTIONAL CERTIFICATE REQUIREMENTS**

The following institutional requirements apply to all CMU technical certificates. Specific programs may have different requirements that must be met in addition to institutional requirements.

- Consists of 5-9 semester hours.
- Primarily 100-200 level courses.
- At least fifty percent of the credit hours must be taken at CMU.
- 2.00 cumulative GPA or higher in all CMU coursework.
- A grade lower than "C" will not be counted toward meeting the requirements.
- A course may only be used to fulfill one requirement for each degree/certificate.
- Non-traditional credit, such as advanced placement, credit by examination, credit for prior learning, cooperative education and internships, cannot exceed twenty-five percent of the semester credit hours required for a technical certificate.
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- Capstone exit assessment/projects (e.g., Major Field Achievement Test) requirements are identified under Program-Specific Certificate Requirements.
- The Catalog Year determines which program sheet and certificate requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

### **PROGRAM-SPECIFIC CERTIFICATE REQUIREMENTS**

- 8 semester hours for the Technical Certificate in Water Quality Management, Mathematics in Water Quality.

**TECHNICAL CERTIFICATE: WATER QUALITY MANAGEMENT, MATHEMATICS IN WATER QUALITY REQUIREMENTS** (8 semester hours, must earn a grade of "C" or better in each course.)

#### **CORE CLASSES** (8 semester hours)

- WQMS 105 - Specific Calculations for Water Quality Management (4)
- WQMS 200 - Hydraulics for Water Quality Management (4)