



## 2017-2018 PROGRAM REQUIREMENTS

### Degree: Technical Certificate

#### Program of Study: Land Surveying and Geomatics

#### About This Major . . .

WCCC/CMU initiate a post-baccalaureate certificate in an on-line format that allows individuals across Colorado – and in surrounding states – to complete 20 hours of surveying-specific course work and a combined internship/capstone project that equates to an additional four credit hours. This certificate would allow students who have a degree, but do not have sufficient surveying-related knowledge and course work to successfully pass the Colorado-required exam to attain a Professional Surveyor License to complete that course work. (Note: These students would still need to prove they had completed the 9 additional math credit hours beyond basic college algebra and geometry not incorporated within the certificate.)

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

All CMU certificate 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. Demonstrate the theoretical knowledge and practical skills in the performance of surveying (Specialized knowledge)
2. Demonstrate skills practice according to the Land Surveying and Geomatics curriculum and tools (Applied Learning)
3. Demonstrate the ability to learn and apply math needed in Land Surveying (Quantitative Fluency)
4. Communicate effectively with instructors, surveyors and other individuals in the state and BLM (Communication Fluency)
5. Demonstrate error recognition and the ability to correctly interpret symbols, common and statutory laws in the state (Critical Thinking)

#### 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 5-59 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**

- 32-33 semester hours for the Technical Certificate in Land Surveying and Geomatics.

**TECHNICAL CERTIFICATE: LAND SURVEYING AND GEOMATICS REQUIREMENTS** (32-33 semester hours, must earn a grade of “C” or better in each course.)

- STAT 200 - Probability and Statistics (3)
- Select one of the following courses:
  - MATH 135 - Engineering Calculus I (4)
  - MATH 151 - Calculus I (5)
- SURV 100 - Introduction to Surveying/Field Work (3)
- SURV 102 - Surveying Calculations I (3)
- SURV 200 - Advanced Surveying Field Work (4)
- SURV 203 - Legal Aspects of Surveying (3)
- SURV 204 - Real Property Descriptions (2)
- SURV 205 - Advanced Surveying Computations/Calculations (4)
- SURV 207 - Surveying Ethics: An Overview of Ethical Expectations (2)
- SURV 298 - Internship and Capstone Project (4)

## **SUGGESTED COURSE SEQUENCING**

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### **Freshman Year, Fall Semester: 19 credits**

- STAT 200 - Probability and Statistics (3)
- SURV 100 - Introduction to Surveying/Field Work (4)
- SURV 102 - Surveying Calculations I (3)
- SURV 200 - Advanced Surveying Field Work (4)
- SURV 203 - Legal Aspects of Surveying (3)
- SURV 204 - Real Property Descriptions (2)

### **Freshman Year, Spring Semester: 14-15 credits**

- MATH 135 - Engineering Calculus I (4) or MATH 151 - Calculus I (5)
  - SURV 205 - Advanced Surveying Computations/Calculations (4)
  - SURV 207 - Surveying Ethics: An Overview of Ethical Expectations (2)
  - SURV 298 - Internship and Capstone Project (4)
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