



**2015-2016 PETITION/PROGRAM SHEET**  
**Degree: Associate of Science**  
**Major: Liberal Arts**  
**Emphasis: Mathematics**

**About This Emphasis . . .**

The Associate of Science (A.S.) degree with an emphasis in mathematics provides students with a reasonable exposure to foundational college-level mathematics. The A.S. is the appropriate choice for students who will take upper division coursework in mathematics, biological sciences, and physical sciences. The degree program includes the Colorado Statewide General Education Core and meets the lower division general education requirements at most public institutions in Colorado. By completing this degree, students should be able to matriculate into a baccalaureate degree in mathematics with only 60 additional hours of coursework.

For more information on what you can do with this major, go to <http://www.coloradomesa.edu/career/whatmajor.html> and/or <http://www.coloradomesa.edu/mathstat/links.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. Construct multi-step problem-solving strategies, and communicate solutions effectively in written form. (Specialized Knowledge/Quantitative Fluency)
2. Use mathematical software (including calculators) to aid in problem-solving and investigation, and understand its limitations. (Applied Learning)

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**NAME:** \_\_\_\_\_ **STUDENT ID #:** \_\_\_\_\_

**LOCAL ADDRESS AND PHONE NUMBER:** \_\_\_\_\_

\_\_\_\_\_ ( ) \_\_\_\_\_

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I, (Signature) \_\_\_\_\_, hereby certify that I have completed (or will complete) all the courses listed on the Program Sheet. I have read and understand the policies listed on the last page of this program sheet. I further certify that the grade listed for those courses is the final course grade received except for the courses in which I am currently enrolled and the courses which I complete next semester. I have indicated the semester in which I will complete these courses.

\_\_\_\_\_  
 Signature of Advisor \_\_\_\_\_ 20\_\_\_\_  
 Date

\_\_\_\_\_  
 Signature of Department Head \_\_\_\_\_ 20\_\_\_\_  
 Date

\_\_\_\_\_  
 Signature of Registrar \_\_\_\_\_ 20\_\_\_\_  
 Date

**DEGREE REQUIREMENTS:**

- Minimum of 60 semester hours total (A minimum of 15 of the final 30 semester hours of credit at CMU).
- Pre-collegiate courses (usually numbered below 100) cannot be used for graduation.
- 2.50 cumulative GPA or higher in all CMU coursework
- No more than one "D" may be used in the Mathematics area of emphasis and a grade point average of 2.5 or higher must be maintained for all coursework toward the major content area.
- A grade of "C" or higher must be earned in all Essential Learning courses in order to be accepted for the transfer under the Core Transfer Agreements.
- A student must follow the CMU graduation requirements either from 1) the program sheet for the major in effect at the time the student officially declares a major; or 2) a program sheet for the major approved for a year subsequent to the year during which the student officially declares the major and is approved for the student by the department head. Because a program may have requirements specific to the degree, the student should check with the faculty advisor for additional criteria. It is the student's responsibility to be aware of, and follow, all requirements for the degree being pursued. Any exceptions or substitutions must be approved by the student's faculty advisor and Department Head.
- When filling out the program sheet a course can be used only once.
- See the "Undergraduate Graduation Requirements" in the catalog for additional graduation information.

**ESSENTIAL LEARNING REQUIREMENTS** (31 semester hours)

See the current catalog for a list of courses that fulfill the requirements below. If a course is on the Essential Learning list of options and a requirement for your major, you must use it to fulfill the major requirement and make a different selection within the Essential Learning requirement. The Essential Learning capstone course and co-requisite Essential Speech course (required for bachelor's degrees) cannot be used as options for the below requirements.

Course	No	Title	Sem.hrs	Grade	Term
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**English** (6 semester hours, must receive a grade of "C" or better and must be completed by the time the student has 60 semester hours.)

ENGL 111	English Composition	3	_____	_____
ENGL 112	English Composition	3	_____	_____

**Math** MATH (3 semester hours, must receive a grade of "C" or better, must be completed by the time the student has 60 semester hours.)

MATH 119	Precalculus Mathematics			
<b>OR</b>		5*	_____	_____

MATH 151 Calculus I

\*3 credits apply to the Essential Learning requirements and 2 credits apply to elective credit

Course	No	Title	Sem.hrs	Grade	Term
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**Social and Behavioral Sciences** (6 semester hours)

_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

**Humanities** (3 semester hours)

_____	_____	_____	_____	_____	_____
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**Natural Sciences** (7 semester hours, one course must include a lab)

_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	L	_____	_____	_____	_____

**History** (3 semester hours)

HIST	_____	_____	_____	_____	_____
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**Fine Arts** (3 semester hours)

_____	_____	_____	_____	_____	_____
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**WELLNESS REQUIREMENT** (2 semester hours)

KINE 100	Health and Wellness	1	_____	_____
KINA 1	_____	1	_____	_____

**MATHEMATICS EMPHASIS REQUIREMENTS**

(15-21 semester hours)

**Core Classes**

MATH 151*	Calculus I	5	_____	_____
MATH 152	Calculus II	5	_____	_____
MATH 253	Calculus III	4	_____	_____
MATH 260	Differential Equations			
	<b>OR</b>	3 or 4	_____	_____
MATH 236	Differential Equations and Linear Algebra			
STAT 200	Probability and Statistics	3	_____	_____

\*If MATH 151 is used to satisfy the Mathematics Essential Learning Requirement, only 15 semester hours are required for the emphasis.

**Electives** (6-12 Semester Hours) Any college level undergraduate courses. Recommended: MATH 240 Introduction to Advanced Mathematics or CSCI 111 Computer Science 1-Foundations.

\*MATH 119 Precalculus Mathematics

<b>OR</b>		2	_____	_____
*MATH 151	Calculus I			

_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

## SUGGESTED COURSE SEQUENCING FOR THE ASSOCIATE OF SCIENCE WITH A MAJOR IN LIBERAL ARTS - EMPHASIS IN MATHEMATICS

This is a recommended sequence of course work. Certain courses may have prerequisites or are only offered during the Fall or Spring semesters. It is the student's responsibility to meet with the assigned advisor and check the 2 year course matrix on the Colorado Mesa website for course availability.

### FRESHMAN YEAR

Fall Semester	Hours	Spring Semester	Hours
ENGL 111	English Composition	ENGL 112	English Composition
MATH 151	Calculus I	MATH 152	Calculus II
Essential Learning	Natural Science with Lab	Essential Learning	Natural Science
Essential Learning	Social/Behavioral Science	STAT 200	Probability and Statistics
	15	KINA	Activity
			15

### SOPHOMORE YEAR

Fall Semester	Hours	Spring Semester	Hours
MATH 253	Calculus III	MATH 260	Differential Equations
Essential Learning	Humanities	MATH 240	Introduction to Advanced Mathematics
CSCI 111	Computer Science I or Elective		or Elective
Essential Learning	Social/Behavioral Science	Essential Learning	Fine Arts
KINE 100	Health and Wellness	Essential Learning	History
	14-15	Elective	3
			15-16

#### POLICIES:

1. Please see the catalog for a complete list of graduation requirements.
2. This program sheet must be submitted with your graduation planning sheet to your advisor during the **semester prior to the semester of graduation, no later than October 1 for spring graduates, no later than March 1 for fall graduates.** You must turn in your "Intent to Graduate" form to the Registrar's Office **by September 15 if you plan to graduate the following May, and by February 15 if you plan to graduate the following December.**
3. Your advisor will sign and forward the Program Sheet and Graduation Planning Sheet to the Department Head for signature. Finally, the Department Head will submit the signed forms to the Registrar's Office. (Students cannot handle the forms once the advisor signs.)
4. If your petition for graduation is denied, it will be your responsibility to reapply for graduation in a subsequent semester. Your "Intent to Graduate" does not automatically move to a later graduation date.
5. NOTE: The semester before graduation, you may be required to take a capstone exit assessment/project.