

MATHEMATICS EMPHASIS (AA DEGREE A8989)

Review [Student Learning Outcomes \(SLOs\)](#) for this program.

Degree A8989

An emphasis in Mathematics provides the student with an understanding of college level mathematics. In addition to the foundational calculus courses, students may select from computer science programming options.

This degree requires the completion of General Education coursework plus the following:

Required Courses

Course Prefix	Course Name	Units
Choose a minimum of 18 units from the following with at most two CSCI courses:		18
MATH 130	College Algebra	
MATH 140	Calculus for Business	
MATH 150	Trigonometry	
MATH 160	Precalculus Mathematics	
MATH 180	Calculus and Analytic Geometry	
MATH 181	Calculus and Analytic Geometry	
MATH 245	A Transition to Advanced Mathematics	
MATH 280	Calculus and Analytic Geometry	
MATH 285	Linear Algebra and Differential Equations	
CSCI 110	Fundamentals of Computer Science	
CSCI 140	C++ Language and Object Development	
CSCI 145	Java Language and Object Oriented Programming	
For Area of Emphasis		
Total Units		18

Recommended Electives

Course Prefix	Course Name	Units
MATH 100	Survey of College Mathematics	3
MATH 110	Elementary Statistics	3
or MATH 110H	Elementary Statistics - Honors	
MATH 120	Finite Mathematics	3
CHEM 50	General Chemistry I	5
or CHEM 50H	General Chemistry I - Honors	
CHEM 51	General Chemistry II	5
PHYS 4A	Engineering Physics	5
PHYS 4B	Engineering Physics	5
PHYS 4C	Engineering Physics	5

Math and Computer Science Website (<http://www.mtsac.edu/math/>)

Guided Pathways of Study Suggested Course Sequence (<https://www.mtsac.edu/guided-pathways/pathway-results.html?pthwyvar=A8989&desc=Mathematics+Emphasis%2C+AA+Liberal+Arts+and+Sciences+A8989>)

Program Learning Outcomes

Upon successful completion of this program, a student will be able to:

- Demonstrate critical thinking skills in solving an application problem in the math and computer science courses that the student takes.
- Analyze success rates for the math courses that are assigned to the AA Degree.