

PROGRAMS

MATHEMATICS - AS

Associate in Science in Math

- [Contact the Mathematics Department.](#)
 - [View all Mathematics courses and degrees.](#)
- [Register via Mission Portal](#)

Mathematics is a multifaceted subject of great beauty and application. Mathematics courses provide the student with a universal language used to study quantities and relationships in all fields.

Through the study of mathematics, the student develops the ability to think logically and abstractly, as well as developing the problem solving and computational skills necessary for success in any field of study.

Program Learning Outcomes

- Students will solve mathematical problems involving algebra, trigonometry, calculus and/or statistics.
- Students will solve applied problems by employing mathematical concepts to formulate and solve representative mathematical models.
- Students will apply appropriate technology to analyze and solve problems.

Meet the Following Requirements

1. Completion of 60 degree applicable units with an overall GPA of 2.0.
2. Completion of a minimum of 18 semester units in the major with a grade of C (or P) or better.
3. Completion of the AS Graduation Requirements, CSU GE-B or IGETC.

NOTES

- *Requirements here apply to the current catalog year and are subject to change. Visit DegreeWorks in [My Mission Portal](#) to view requirements based your catalog year.*
- *Not all classes are offered each semester.*

Required Core Courses

MAT 003AH and MAT 010H can be taken in lieu of MAT 003A and MAT 010.

Code	Class	Units
MAT 003A	Analytic Geometry and Calculus I (5.0 Lecture)	5.0
MAT 003AH	Analytic Geometry and Calculus I - Honors (5.0 Lecture)	5.0
MAT 003B	Analytic Geometry and Calculus II (5.0 Lecture)	5.0
MAT 004A	Multivariable Calculus (5.0 Lecture)	5.0
MAT 004B	Differential Equations (4.0 Lecture)	4.0
MAT 004C	Linear Algebra (4.0 Lecture)	4.0
MAT 010	Elementary Statistics (4.0 Lecture)	4.0
MAT 010H	Elementary Statistics - Honors (4.0 Lecture)	4.0

Select One Course from the Following

Code	Class	Units
AST 001	Astronomy (3.0 Lecture)	3.0
AST 003	Astronomy With Lab (3.0 Lecture/1.0 Lab)	4.0
BIO 010	Introduction to Biology (3.0 Lecture)	3.0
CHM 002	Introductory Chemistry (3.0 Lecture)	3.0
PHY 002A	General Physics - Mechanics and Thermodynamics (4.0 Lecture/1.0 Lab)	5.0

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Plus One of the Following

Code	Class	Units
CIS 007	Python Programming (3.0 Lecture/1.0 Lab)	4.0
CIS 008	Advanced Python Programming (3.0 Lecture/1.0 Lab)	4.0
CIS 037A	Introduction to C Programming (3.0 Lecture/1.0 Lab)	4.0
CIS 040	C++ Programming (3.0 Lecture/1.0 Lab)	4.0
CIS 043	Software Development With Java Programming (3.0 Lecture/1.0 Lab)	4.0
EGR 030	Introduction to Computing for Engineers (3.0 Lecture/1.0 Lab)	4.0
MAT 005	Programming and Problem-Solving in MATLAB (2.0 Lecture/1.0 Lab)	3.0
MAT 019	Discrete Mathematics (4.0 Lecture)	4.0

Required Units for the Major

	Units
Required Units for the Major	28.0-31.0
plus completion of general education requirements and electives as needed to reach 60 units.	
Total Required Units	60.0

Math Major Careers