A.S. Degree
A.S. -T Degree

Contact:
(408) 848-4701
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After completing the Mathematics major, students transferring to a four-year institution will be prepared for additional study in the following areas: actuarial science, applied mathematics, computer science (programming), statistics, theoretical mathematics.

Mathematics *A.S. Degree*

The Associate in Science in Mathematics degree and Associate in Science in Mathematics for Transfer degree provide opportunities for students to enter in a wide range of careers. After completing the Mathematics major, students transferring to a four-year institution will be prepared for additional study in the following areas: actuarial science, applied mathematics, computer science (programming), statistics, theoretical mathematics.

Program Learning Outcomes: After completing this degree a student will be able to:

- identify and utilize appropriate mathematical operations in the simplification of expressions and solution of equations.
- compare and contrast various mathematical models and then apply the appropriate model to real world problems.
- describe, compare and contrast various mathematical functions using everyday language.
- describe, compare and contrast various mathematical properties and operations for real and imaginary numbers using everyday language.

REQUIREMENTS:
Mathematics majors are encouraged to consult four-year college catalogs during their first semester at Gavilan College. See Gavilan General Education requirements on page 48.

ENGR 5	C++ Scientific Programming (3 units)
MATH 1A	Single-Variable Calculus and Analytic Geometry (4 units)
MATH 1B	Single-Variable Calculus and Analytic Geometry (4 units)
MATH 1C	Multivariable Calculus (4 units)
MATH 2 *	Linear Algebra (3 units)
MATH 2C	Differential Equations (3 units)

Total units required: 21 units
Plus completion of general education requirements: units vary
Total units required: minimum of 60 units

Recommended Electives: MATH 5; PHYS 4A, B, C

* There are times when a course listed as a requirement for a major or certificate cannot be offered in a reasonable timeframe. Course substitutions and waivers will be considered by the department. Please contact the department chairperson. This information is available from the Office of Instruction - (408) 848-4761.

General Education requirements: A student may complete the Gavilan College A.A./A.S. general education, the CSU-GE Breadth or the IGETC pattern, plus sufficient electives to meet a 60 unit total. See pages 50-57 or see a counselor for details.

NOTE: A course may be used to satisfy both general education and major courses. See "Double Counting Rule" on page 47.

Mathematics

A.S. - T. Degree

Associate Degree for Transfer™

The Associate in Science in Mathematics degree and Associate in Science in Mathematics for Transfer degree provide opportunities for students to enter in a wide range of careers. After completing the Mathematics major, students transferring to a four-year institution will be prepared for additional study in the following areas: actuarial science, applied mathematics, computer science (programming), statistics, theoretical mathematics.

Program Learning Outcomes: After completing this degree a student will be able to:

- Identify and utilize appropriate mathematical operations in the simplification of expressions and solution of equations.
- Compare and contrast various mathematical models and then apply the appropriate model to real world problems.
- Describe, compare and contrast various mathematical functions using everyday language.
- Describe, compare and contrast various mathematical properties and operations for real and imaginary numbers using everyday-language.

Successful completion of the AS-T degree in Mathematics allows students to pursue a CSU baccalaureate degree program in the following areas: actuarial science, applied mathematics, computer science (programming), statistics, theoretical mathematics.

REQUIREMENTS:

Math 1A	Single Variable Calculus and Analytic Geometry (4 units)
Math 1B	Single Variable Calculus and Analytic Geometry (4 units)
Math 1C	Muli-Variable Calculus (4 units)
Math 2	Linear Algebra (3 units)
Math 2C	Differential Equations (3 units)

Total units for the certificate or degree 18 units
Plus completion of CSU GE Breadth or IGETC 39-42 units
Total units required for degree: 60 units

Students must:

- Complete 60 semester units or 90 quarter units that are eligible for transfer to the California State University, including both of the following:
  - A. The Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education Breadth Requirements.
  - B. A minimum of 18 semester units or 27 quarter units in a major or area of emphasis, as determined by the community college district.
- Obtain a minimum grade point average of 2.0.

Earn a "C" or better in all courses required for the major or area of emphasis. A “P” (Pass) grade is not an acceptable grade for courses in the major.

* There are times when a course listed as a requirement for a major or certificate cannot be offered in a reasonable timeframe. Course substitutions and waivers will be considered by the department. Please contact the department chairperson. This information is available from the Office of Instruction (408) 848-4761.

DOUBLE COUNTING RULE
A course may be used to satisfy both general education and major courses. See "Double Counting Rule" on page 47.