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 substitu-
Mathematics

A.S. - T. Degree

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- 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  Multi-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

* 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.

ALL ADT DEGREES REQUIRE:

1. Completion of 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.

2. Attainment of a minimum grade point average of 2.0.
ADTs also require that students must earn a C or better in all courses required for the major or area of emphasis. A “P” (Pass) grade is an acceptable grade for courses in the major.

DOUBLE COUNTING RULE

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