Mathematics **A.S. Degree**

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**

- **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.

**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.

Mathematics majors are encouraged to consult four-year college catalogs during their first semester at Gavilan College. See Gavilan General Education requirements on page 47.

**NOTE:** A course may be used to satisfy both general education and major courses. See "Double Counting Rule" on page 41.