

Mathematics Department

DEGREES

Mathematics (AS-T)

COURSES

MATH (Mathematics)

CONTACT INFORMATION:

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P.A.C.E. - SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS - A PATHWAY FOR ACADEMIC AND CAREER EXCELLENCE AT SOLANO COMMUNITY COLLEGE

ARE YOU THE KIND OF PERSON WHO...

- ...desires to observe, learn, analyze, evaluate, or solve problems?
- ...enjoys to question and explore physical or biological happenings?
- ...likes to work hands-on with objects, machines, tools, plants, or animals?
- ...is interested in math and/or thinking analytically to solve complex problems?

Guided Pathways:

MATHEMATICS (AS-T)

Associate in Science for Transfer | GE Pattern: IGETC | Program Total Units: 63-67.5

This program map represents **one possible pathway**. See a counselor to create a customized education plan. Map is for the 2021-2022 catalog year.

Career Paths

Mathematician • Mathematics or Mathematical Science Teacher •

Mathematical Technician • Statistician

What your potential plan could look like...

1

First Semester

Total Recommended Units: 16

- ENGL 001 College Composition (IGETC 1A) 4 units
- LR 010 Introduction to Library Research 1 unit
- MATH 020 Analytic Geometry & Calculus I (IGETC 2) 5 units
- ART 012, CINA 011, MUSC 013, or THEA 013 (IGETC 3A/Cross-Cultural) 3 units
- HIST 017, 018, 028, 029, or 037 (CSU GE C2/American Institutions) 3 units

3

Third Semester

Total Recommended Units: 12-14

- MATH 022 Analytic Geometry and Calculus III 4 units
- MATH 040 Introduction to Linear Algebra 5 units
- ASL 001, FREN 001, or SPAN 001, or UC Transferable Elective * 3 - 5 units

*Depends on whether or not student took two years of the same foreign language in high school and passed with a minimum grade of c.

■ Square, darker color: Required Courses/
Courses in Discipline

● Rounded, lighter color: GE Courses/Categories

2

Second Semester

Total Recommended Units: 15

- ENGL 002 or 004 (IGETC 1B) 4 units
- MATH 021 Analytic Geometry and Calculus II 5 units
- IGETC 4 3 units
- IGETC 3A or 3B 3 units

4

Fourth Semester

Total Recommended Units: 14-16.5

- MATH 023 Intro to Ordinary Differential Equations 4 - 5 units
- PLSC 001 or 005 (IGETC 4/American Institutions) 3 units
- IGETC 5B Suggested: BIO 012, 016, 018, 020, OR 025 3 units
- IGETC 5A/5C ASTR 010 & 020, GEOL 001 & 002, GEOG 001 & 001L 4 - 4.5 units

Courses Below May Be Taken Any Time (Fall, Spring or Summer)

Total Recommended Units: 6

- COMM 001, 002, or 006 (IGETC 1C) 3 units
- IGETC 4 3 units

Mathematics

Associate in Science in Mathematics for Transfer (ADT: A.S.-T)

Program Description

Successful completion of this major will assure competence in mathematics through differential and integral calculus, providing an adequate background for employment in many technological and scientific areas as well as providing a firm foundation for students planning to pursue a baccalaureate degree in mathematics.

The Associate in Science in Mathematics for Transfer is especially appropriate for students who plan to complete a bachelor's degree in Mathematics at a CSU campus. Students completing the AS-T degree are guaranteed admission to the CSU system, but not to a particular campus or major. Students transferring to a CSU campus that does accept the AS-T will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree also prepares students for mathematics degree programs at other four-year institutions, but does not come with the same guarantees. In all cases, students should consult with a counselor for more information on university admission and transfer requirements.

To earn the Associate in Science in Mathematics for Transfer, students must:

1. Complete 60 semester 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 in a major or area of emphasis, as determined by the community college district.
2. Obtain a minimum grade point average of 2.0.

Program Outcomes

Students who complete the Associate in Science in Mathematics for Transfer will be able to:

1. Solve problems expressed symbolically.
2. Analyze problems using a graphical or numerical perspective.
3. Interpret and analyze information to develop strategies to solve applications.

REQUIRED COURSESUnits

MATH 020 Analytic Geometry and Calculus I 5

MATH 021 Analytic Geometry and Calculus II 5

MATH 022 Analytic Geometry and Calculus III 4

MATH 040 Introduction to Linear Algebra 3

MATH 023 Differential Equations 4

or

MATH 011 Elementary Statistics 4

Required Major Total Units.....21