Associate in Science in Mathematics for Transfer

The Associate in Science in Mathematics for Transfer degree is designed to provide students with sufficient understanding of mathematical concepts, skills, and applications to succeed in upper division coursework in mathematics at a four-year college or university.

Students who complete this degree are guaranteed acceptance to a California State University, but are not guaranteed acceptance to a particular CSU campus or major. Students who plan to transfer to any other college or university should consult that institution’s catalog for specific transfer requirements.

Student Learning Outcomes

Upon completion of the mathematics major, students will be able to:

- Demonstrate computational and conceptual proficiency in differential and integral calculus, both single and multi-variable.
- Recognize and construct valid mathematical arguments.
- Use appropriate concepts and techniques from calculus and post-calculus mathematics to solve applied problems.
- Understand and apply rules of formal systems.

Degree Requirements

Students who wish to earn the Associate in Science in Mathematics for Transfer (AS-T) must complete 60 CSU transferable units with at least a 2.0 grade point average. This must include the units required for full completion of the IGETC or CSU GE curriculum and the 18-21 units for the major as specified below. Each course in the major must be completed with a grade of "C" or better. Courses used to meet the major requirement may also be used to meet IGETC or CSU GE requirements.

Courses Required for the Major in Mathematics for Transfer

Students must complete one of the following two options:

**Option 1:**

- MATH 110A. Calculus I ................................................................. 4
- MATH 110B. Calculus II ................................................................. 4
- MATH 110C. Calculus III ............................................................... 4
- MATH 120. Linear Algebra ............................................................ 3
- MATH 125. Differential Equations .............................................. 3

**Option 2:**

- MATH 110A. Calculus I ................................................................. 4
- MATH 110B. Calculus II ................................................................. 4
- MATH 110C. Calculus III ............................................................... 4
- MATH 120. Linear Algebra OR
  - MATH 125. Differential Equations OR
  - MATH 130. Linear Algebra and Differential Equations .......... 3-5

One course from the Electives listed below ........................................ 3-4

**Total** ........................................................................ 18-21

**Electives for Option 2:**

- MATH 80. Probability and Statistics ........................................... 4
- MATH 115. Discrete Mathematics .............................................. 3
- CS 110A. Intro to Programming: C++ ..................................... 3
- CS 111A. Intro to Programming: Java ...................................... 3
- PHYC 4A & 4AL. Physics for Scientists and Engineers & Lab .... 4