

Associate in Science in Mathematics for Transfer Degree
Chaffey College
DEVELOPMENT CRITERIA NARRATIVE AND DOCUMENTATION
ATTACHMENT

Criteria A. Appropriateness to Mission.

2. Catalog description.

The Associate in Science in Mathematics for Transfer degree provides students with sufficient understanding of mathematical concepts, skills, and applications to attain upper division status in mathematics at a four-year college or university, majoring in Mathematics, Physics, Engineering, or Computer Science.

The program is suited to the needs of students who will complete their education at Chaffey College with an A.A. degree, as well as those students who will complete their Chaffey A.A. degree and transfer to a four year institution to complete their bachelor's degree. Successful completion of the transfer degree in Mathematics guarantees the student acceptance to a California State University (*but does not guarantee acceptance to a particular campus or major*) to pursue a baccalaureate degree, in preparation to pursue a career in the field of mathematics, engineering, statistics, actuarial science, business and management, law enforcement, government, and education.

To obtain the Associate in Science in Mathematics for Transfer degree, students must complete the following:

- Completion of the following major requirements with grades of C or better
- A minimum of 60 CSU-transferable units with a grade point average (GPA) of 2.0 or better.
- Certified completion of either the California State University General Education Breadth pattern (CSU GE), which requires **41** units (see **page xx** of the catalog) or the Intersegmental General Education Transfer Curriculum (IGETC-CSU) pattern general education requirements, which requires **38** units (see of the catalog).

Program Learning Outcomes:

Upon the successful completion of this program, students should be able to:

1. Acquire skills that are prerequisite for subsequent studies in mathematics.
2. Develop the ability to reason mathematically.
3. Apply mathematical models.
4. Develop greater confidence in their mathematical abilities.
5. Gain an appreciation for the usefulness of mathematics.

3. Program requirements.

Major requirements for the Associate in Science in Mathematics for Transfer Degree

Required Core (13 units)

MATH 65A Calculus I (4)

MATH 65B Calculus II (4)

MATH 75 Calculus III (5)

Choose a Minimum of 7 Units from List A and List B with at Least 4 Units from List A

List A (4 units)

MATH 85 Differential Equations (4)

Or

MATH 81 Linear Algebra (4)

List B

PHYS 45 Physics for Scientists and Engineers I (5)

Or

CS 21 Fundamentals of C++ Programming (3)

Or

ENGIN 30 Engineering Application of digital Computation (3)

Or

CISPROG 1 Introduction to Computer Programming (3)

Or

STAT 10 Elementary Statistics (4)

Required Subtotal20-26

CSU General Education or IGETC Pattern.....36

Transferable Electives (as needed to reach 60 transferable units)....0-4

Total Units Required for Degree.....60