

# MATHEMATICS, ASSOCIATE IN SCIENCE FOR TRANSFER (AS-T)

## Rationale for Inactivation

ADT is replaced by Mathematics 2.0

## Program Goals and Objectives

**Must address a valid transfer, workforce preparation, basic skills, civic education, or lifelong learning purpose.**

The goal of the Associate in Science in Mathematics for Transfer degree (AS-T in Mathematics) is to provide a seamless transfer pathway to a CSU as the curriculum aligns with the Transfer Model Curriculum (TMC) for Mathematics. The degree requirements include the common core of lower-division courses required to transfer and pursue a baccalaureate degree at a CSU in Mathematics.

**The proposal must demonstrate a need for a program that meets the stated goals and objectives in the region the college proposes to serve with the program.**

Comply with SB 1440 by providing a pathway for students transferring to a CSU in a major deemed similar.

## Program Student Learning Outcomes

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#### Upon completion of this program a student will be able to:

demonstrate critical thinking skills, analyze abstract concepts, and transition from the concrete to the abstract in mathematical thinking.

apply formal systems of reasoning in solving problems or analyzing arguments.

express results or conclusions using correct mathematical notation.

## Catalog Description

**Includes program requirements, prerequisite skills or enrollment limitations, student learning outcomes, and information relevant to program goal.**

The Mathematics Associate in Science Degree program offers training in both pure and applied mathematics, leading to careers in research, education, business, industry, and government, including such professions as educators, statisticians, actuaries, and operations research analysts. Many areas, such as the physical and social sciences, engineering, economics, and business, are dependent upon the use of applied mathematics in developing solutions to practical problems.

Students who complete Mathematics courses will demonstrate critical thinking skills, analyze abstract concepts, and transition from the concrete to the abstract in mathematical thinking. The Associate in Science Degree in Mathematics for Transfer (AS-T) is intended for students who plan to transfer and complete a Bachelor's degree in Mathematics, or a similar major at a CSU campus. Each CSU campus determines which of the degrees it offers are "similar" and can be completed with the preparation included in the AS-T in Mathematics within 60 units once a student transfers, so which majors are "similar" varies from CSU to CSU. For a current list of what majors (and what options or areas of emphasis within that major) have been designed as "similar" to this degree at each CSU campus, please visit the CSU's Associate Degree for Transfer Major and Campus Search (<https://www.calstate.edu/apply/transfer/Pages/associate-degree-for-transfer-major-and-campus-search.aspx>) webpage and seek guidance from a Moorpark College counselor. Students completing the AS-T degree in Mathematics are guaranteed admission to the CSU system, but not necessarily to a particular CSU campus or major.

**Includes course requirements and sequencing that reflect program goals.**

**To earn an AS-T in Mathematics, students must:**

1. Complete a minimum of 60 semester or 90 quarter units that are eligible for transfer to the California State University (CSU), including both of the following:
  - a. The California General Education Transfer Curriculum (Cal-GETC) requirements.
  - b. The coursework required for the AS-T in Mathematics 2.0 as listed in the Moorpark College catalog.
2. Complete all courses in the major and the Cal-GETC with a grade of "C" or better or "Pass/Credit" if the course is taken on a "pass-no-pass" basis. Even though a "Pass/Credit" grade is allowed (Title 5 §55062), it is highly recommended that students complete their major courses with a letter grade (A, B, or C). Note: the UC system allows a maximum of 14 semester (21 quarter) units of courses graded "Pass/Credit" toward the 60 transferable semester units required for transfer admission.
3. Obtain a minimum grade point average (GPA) of 2.0 in all CSU-transferable coursework. While a minimum GPA of 2.0 is required for admission, some transfer institutions and majors may require a higher GPA. Please consult with a counselor for more information.
4. Complete requirements in residency. For students in the Ventura County Community College District, a minimum of 12 units must be completed in residence within the college district.

Students transferring to a CSU campus that accepts the AS-T in Mathematics will be required to complete no more than 60 units after transfer to earn a bachelor's degree (unless the major is a designated "high-unit" major at a particular campus). This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system. Students should consult with a counselor to obtain more information on university admission and transfer requirements.

Course ID	Title	Units/Hours
<b>REQUIRED CORE</b>		
MATH M25A or MATH M25AH	Calculus I: Early Transcendentals Calculus I: Early Transcendentals - Honors	5
MATH M25B or MATH M25BH	Calculus II: Early Transcendentals Calculus II: Early Transcendentals - Honors	5
MATH M25C	Calculus with Analytic Geometry III	5
MATH M31	Introduction to Linear Algebra	3
MATH M35	Applied Differential Equations	3
<b>LIST A: Select one course</b>		<b>3 - 5</b>
CS M01	Introduction to Computer Science	3
CS M10J	Introduction to Computer Programming Using Java	4
CS M10P	Introduction to Computer Programming using Python Language	4
CS M125	Programming Concepts and Methodology I	3
PHYS M20A & M20AL	Mechanics of Solids and Fluids and Mechanics of Solids and Fluids Laboratory	4/1
<b>Total Units for Major</b>		<b>24 - 26</b>
Course ID	Title	Units/Hours
<b>Total Units for Major</b>		<b>24 - 26</b>
<b>General Education Pattern (Cal-GETC)</b>		<b>34</b>
Double-Counted Units		3 - 7
Elective (CSU Transferable) Units		3 - 9
<b>Total Units for the AS-T Degree</b>		<b>60</b>

## Plan of Study

Includes a list of courses organized by the suggested semester a student should enroll. Make sure to align the plan of study with when courses are typically offered.

N/A