



A Course of Study for

MATHEMATICS AS-T

Mathematicians use symbolic languages to set up and analyze relationships among quantities and qualities of things, events, and places. Pure mathematicians develop the theories to further the science of mathematics. Possible careers include actuary, computer engineer, cryptographer, satellite communications expert, robotics programmer, statistician and teacher.

For additional career possibilities, visit the Career Services Center on the main campus to utilize computerized career information systems and other valuable career resources.

PROGRAMS OFFERED

- Transfer Preparation
- Career Opportunities

DEGREE

- Mathematics Associate Degree for Transfer

Students may satisfy the requirements of this degree with approved courses (which may be fewer units) taken at other California community colleges. The courses listed below are SMC courses. If completed entirely at SMC, the Area of Emphasis requires 21 units.

ASSOCIATE DEGREE IN MATHEMATICS FOR TRANSFER TO THE CSU

The Associate in Science for Transfer (AS-T) is designed to facilitate transfer admission to a CSU in a similar major. If you are considering transfer to a UC, private, or out-of-state school, consult a counselor regarding the transfer requirements of that institution.

Associate Degree for Transfer Requirements:

- completion of at least 60 CSU-transferable semester including:
 - completion of the Area of Emphasis with a grade of C or higher in each course or with a P if the course was taken on a Pass/No Pass basis, and the P is equal to a C or higher (Title 5 §55063)
 - completion of either CSU GE or IGETC; students transferring to CSU using IGETC must complete Area 1C (see www.smc.edu/articulation or visit the General Counseling and Transfer Services Center)
 - a minimum of 12 degree applicable semester units completed at SMC
 - a minimum overall GPA of 2.0 in all CSU-transferable units

Note: while a minimum GPA of 2.0 is required for admission to a CSU, some majors/campuses may require a higher GPA. Please consult with a counselor for details.

CATALOG RIGHTS

A student may satisfy the requirements of a degree that were in effect at any time of the student's *continuous* enrollment. Continuous enrollment means attendance in at least one semester (Fall or Spring) in each academic year.

TRANSFER PREPARATION

Many colleges/universities offer baccalaureate degrees in this field. Students planning to transfer to a four-year college or university should complete the lower-division major requirements and the general education pattern for the specific transfer institution. SMC has articulation agreements with the many UC and CSU campuses, as well as several private and out-of-state institutions.

Exact major requirements for UC and CSU campuses can be found online at [assist.org](https://www.assist.org).

A listing of private, nonprofit California colleges and universities can be found online at aiccu.edu. For articulation agreements between SMC and some of these institutions see smc.edu/articulation.

The **University of California system has a transfer pathway** for any UC campus that offers Mathematics. For more information, visit pathwaysguide.universityofcalifornia.edu

SMC offers the **Mathematics Associate Degree for Transfer**. Students completing this degree are eligible for priority transfer admission consideration in the majors at the **California State University** campuses listed below. In addition, you will be required to complete no more than 60 semester/90 quarter CSU units of coursework after transfer to complete your baccalaureate degree.

NOTE: If you are considering transfer to a UC, private, or out-of-state school, please consult a counselor before applying to transfer, as the transfer requirements may be different from those required for the Mathematics AS-T.

For the most current list of CSU campuses accepting this Transfer degree visit calstate.edu/transfer/adt-search/search.shtml

MATHEMATICS, ASSOCIATE DEGREE FOR TRANSFER

Upon successful completion of the Santa Monica College's AS-T in Mathematics, the student will have a strong academic foundation in the field and be prepared for upper-division baccalaureate study. This coursework will satisfy most of the lower-division Mathematics requirements at many institutions at both the University of California and the California State University systems. This degree is intended for students who are interested in the theory of Mathematics and are planning to transfer to a four-year university and majoring in Mathematics, Physics, Engineering, or Computer Science.

Program Learning Outcomes: Upon completion of the program, students will demonstrate an appreciation and understanding of mathematics in order to develop creative and logical solutions to various abstract and practical problems. Furthermore, given a mathematical situation, the student will be able to critically analyze it, determine an appropriate strategy to address it, and implement the strategy to find the solution.

AREA OF EMPHASIS: (21 UNITS)

Required Core Courses: (18 units)

MATH 7	Calculus 1	5
MATH 8	Calculus 2	5
MATH 11	Multivariable Calculus	5
MATH 13	Linear Algebra	3
Select at least 1 course from the following: (3 units minimum)		
MATH 10	Discrete Structures (<i>strongly recommended</i>)	3
MATH 15	Ordinary Differential Equations (<i>strongly recommended</i>)	3
PHYSCS 8	Calculus-based General Physics 1 with Lab	4
PHYSCS 21	Mechanics with Lab	5