MATHEMATICS, ASSOCIATE IN SCIENCE FOR TRANSFER

The Associate in Science in Mathematics for Transfer (AS-T in Mathematics) degree program provides students with sufficient understanding of mathematical concepts, skills, and applications to transfer seamlessly into the California State University system and attain upper-division status, majoring in mathematics, physics, engineering, or computer science. Successful completion of AS-T in Mathematics degree guarantees student acceptance to a CSU (but does not guarantee acceptance to a particular campus or major) to pursue a baccalaureate degree in mathematics or related major, in preparation to pursue a career in the field of mathematics, engineering, statistics, actuarial science, business and management, law enforcement, government, and education. Students must complete the Associate Degree for Transfer requirements to earn the AS-T degree.

Learning Outcomes

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

- Solve problems using mathematical symbols, operations, and techniques.
- Construct mathematical models of physical problems, draw conclusions from these models, and communicate their conclusions.
- Formulate, test, and prove mathematical conjectures.

Associate in Science for Transfer Degree Major Requirements

Code	Title	Units
Required Core		
MATH 20A	Calculus with Analytic Geometry I	4
MATH 20B	Calculus with Analytic Geometry II	4
MATH 20C	Calculus of Several Variables	4
List A		
Select one course from the following:		4
MATH 31	Linear Algebra	
MATH 32	Differential Equations	
List B		
Select one course from the following:		3-4
Any List A course not already selected		
CSIS 10A	Programming Methods I: Java	
MATH 16	Elementary Statistics	
or PSYC 19	Introduction to Statistics for the Social Sciences	
or SOCI 19	Introduction to Statistics for the Social Sciences	
MATH 40	Discrete Mathematics	
PHYS 3A	Science and Engineering Physics I	
TOTAL MAJOR UNITS		**19-20**
Additional Requirements		**40-41**
Complete CSU General Education or IGETC pattern and electives, if needed, for a total of 60 transferable units.		
Total Units		**60**

Please refer to the graduation requirements section of the Catalog for information about degree and certificate requirements including Reading and Writing, Mathematics, Information Competency, and General Education requirements.

The model sequence of coursework below is one pathway for students to complete the program. The information below is not an official educational plan. An MPC Counselor can assist you with creating a personalized education plan based on your academic, career, and personal goals. Visit MPC's Counseling website for more information about Counseling and up-to-date program requirements.

Suggested 2-Year Course Sequence

Year 1		
Fall		**Units**
ENGL 1A or ENGL 1AE	College Composition or College Composition: Enhanced	3
MATH 20A	Calculus with Analytic Geometry I	4
IGETC Area 3A		3
IGETC Area 3B (US-1 Course Recommended)		3
Elective (LIBR 50 or COUN 10 Recommended)		1
	Units	**14**
Spring		
ENGL 2	Argumentative Writing and Critical Thinking	3
MATH 20B	Calculus with Analytic Geometry II	4
IGETC Area 4 (US-2 & 3 Course Recommended)		3
IGETC Area 5A & 5C (PHYS 3A Recommended)		4
	Units	**14**
Year 2		
Fall		
MATH 20C	Calculus of Several Variables	4
MATH 31	Linear Algebra	4
SPCH 1 or SPCH 2	Public Speaking (CSU Requirement) or Small Group Communication	3
IGETC Area 4 (ECON 2 Recommended)		3
IGETC Area 3A or 3B		3
	Units	**17**
Spring		
Major List A or B (MATH 32 Recommended)		4
IGETC Area 4 (ECON 4 Recommended)		3
IGETC Area 5B		3
IGETC Area 6 (UC Requirement) or Electives (CSU/UC Transferable)		5
	Units	**15**
	Total Units	**60**

MPC transfer programs are designed to enable students to complete lower-division requirements in preparation for transfer to a baccalaureate-granting institution.

The Student Transfer Achievement Reform Act (Senate Bill 1440, codified in California Education Code sections 66746-66749) guarantees admission to California State University (CSU) system for any community college student who earns an Associate Degree for Transfer (ADT), although not to a particular campus or major. Upon transferring to a CSU campus that accepts the Associate in Arts for Transfer (AA-T) or Associate in Science for Transfer (AS-T), students will be required to complete no more than 60 upper-division units to earn a bachelor's

degree in a same or similar major (unless designated as a “high-unit” major).

The following Associate Degree for Transfer requirements must be completed to earn the AA-T or AS-T degree:

a. Minimum of 60 CSU-transferable semester units;
b. Minimum grade point average (GPA) of 2.0 in all CSU-transferable coursework (while a minimum of 2.0 is required for admission, some majors may require a higher GPA);
c. Completion of a minimum of 18 semester units as detailed in the Major Requirements;
d. Completion of all courses in the major with a grade of C or better (or a “P” if the course is taken on a “Pass/No Pass” basis);
e. Certified completion of the California State University General Education-Breadth pattern (CSU GE-Breadth) pattern; OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern.

All students should consult with a Counselor to discuss transfer pathways and specific university admission requirements. Visit MPC’s Counseling website for more information about Counseling services provided by MPC and to connect with a Counselor.