

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

The Mathematics Department at Santa Barbara City College offers a broad curriculum to meet the needs of students with a wide variety of goals. It offers a standard college-level sequence in single and multivariable calculus, analytic geometry, linear algebra and ordinary differential equations for freshman and sophomore students who plan to transfer to baccalaureate institutions. In addition, the department offers courses in statistics and calculus for Business, Biological Sciences and Social Science majors, as well as courses in support of Career Technical Education programs.

The Associate in Science for Transfer degree in Mathematics provides students with the foundational knowledge necessary to make a successful transition into a Baccalaureate Degree at any of the CSU campuses. The Associate Degree for Transfer (AA-T or AS-T) is a special degree offered at California Community Colleges. Students who earn an AA-T or AS-T degree are guaranteed admission to a campus within the California State University (CSU) system in a similar major, although not necessarily to a specific campus. Students who complete an AA-T or AS-T are given priority consideration when applying to a particular program that is similar to the student's community college major and will be given a special GPA advantage when applying to CSU impacted campuses or majors. Students who are planning to pursue an AA-T or AS-T are strongly advised to meet with a counselor for additional information about this transfer program. Visit <https://adegreewithaguarantee.com/> for more information about these degrees.

## Requirements

### Associate Degree for Transfer Graduation Requirements

Complete all of the following:

1. All Department Requirements listed below with a "C" or better or "P" in each course.
2. IGETC-CSU (<https://catalog.sbccc.edu/transfer-curricula/#igetctext>) or the CSU GE Breadth (<https://catalog.sbccc.edu/transfer-curricula/#csugebtext>) pattern.
3. A total of 60 CSU transferable semester units.
4. Maintain a minimum cumulative CSU transferable GPA of 2.0.
5. A minimum of 12 units through SBCC.

Code	Title	Units
<b>Required Core</b>		
MATH 150	Calculus with Analytic Geometry I	5
MATH 160	Calculus with Analytic Geometry II	5
MATH 200	Multivariable Calculus	4
List A - Complete at least one of the following:		4
MATH 210	Linear Algebra	
MATH 220	Differential Equations	
List B - Complete one course from the following:		3-5
Any course not taken in List A		
CS 105	Theory and Practice I	
CS 106	Theory and Practice II	

CS 108	Discrete Structures
CS 137	C Programming
CS 140	Object-Oriented Programming Using C++
MATH 117 or PSY 150	Statistics for the Behavioral Sciences
PHYS 121	Mechanics Of Solids And Fluids
<b>Total Units</b>	<b>21.00-23.00</b>

Students are advised to meet with an academic counselor to discuss the best combination of courses to take for the AS-T and to meet the requirements of the transfer institution to which they are intending to transfer.

## Learning Outcomes

1. Use symbolic, graphical, numerical and written representations to describe mathematical ideas.
2. Use mathematical reasoning to solve problems and apply a variety of problem-solving approaches to find and interpret solutions.
3. Use mathematics to model and solve problems in the sciences.
4. Use appropriate technology to enhance mathematical thinking and understanding, solve mathematical problems, and interpret their results.
5. Use the language and notation of differential and integral calculus correctly and use appropriate style and format in written work.
6. Recognize the roles of definitions, axioms and theorems, and identify and construct valid deductive arguments.

## Recommended Sequence

Make an appointment with your SBCC academic counselor through Starfish to create a Student Education Plan that reflects a recommended course sequence for this program that is tailored to your individual needs.

How to schedule an Academic Counseling appointment (<https://www.sbccc.edu/counselingcenter/counselingappointments.php>).