

MATHEMATICS, ASSOCIATE IN SCIENCE FOR TRANSFER

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 Mathematics degree program offers training in both pure and applied mathematics, leading to careers in research, education, business, industry, and government. Many areas, such as the physical, biological and social sciences, engineering, economics, and business, are dependent upon the use of applied mathematics in developing solutions to practical problems.

The Associate in Science in Mathematics for Transfer (AS-T in Mathematics) is intended for students who plan to complete a bachelor's degree in Mathematics or a "similar" major at a CSU campus. For a current list of what majors (and what options or areas of emphasis within that major) have been designated as "similar" to this degree at each CSU campus, please refer to 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>) and seek guidance from an Oxnard College counselor. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major.

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

- Complete a minimum of 60 CSU-transferable semester units including both of the following:
 - Certified completion of the Intersegmental General Education Transfer Curriculum (IGETC) or the California State University General Education – Breadth (CSU GE-Breadth) requirements.
 - A minimum of 21 semester units in the Mathematics major as listed in the Oxnard College catalog.
- Obtain a 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. Please consult with a counselor for more information.
- Obtain a grade of "C" or better or "P" in all courses required in the major. Even though a "pass-no-pass" is allowed (Title 5 § 55063), it is highly recommended that students complete their major courses with a letter grade.
- Complete requirements in residency. For students in the Ventura County Community College District, a minimum of 12 units must be completed in residence at the college granting the degree.

Students transferring to a CSU campus that does accept 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 when planning to complete the degree for more information on university admission and transfer requirements.

Course ID	Title	Units/Hours
Required Core Courses		15
MATH R120	Calculus with Analytic Geometry I	
MATH R121	Calculus with Analytic Geometry II	
MATH R122	Calculus with Analytic Geometry III	
Select a minimum of two courses (6 units) from the following with at least one course (3 units) from List A:		
List A (provides depth of understanding in subject major):		
MATH R134	Linear Algebra	
MATH R143	Differential Equations	
List B (expands application of discipline):		
MATH R105	Introductory Statistics or MATH R105H Honors: Introductory Statistics	
PHYS R131	Physics for Scientists and Engineers 1	
Total Required Major Units		21-23
CSU General Education		39
Double-Counted Units		- 3-6
Free Electives Required		3-4
Total Units Required for AS-T Degree		60
OR		
IGETC		37
Double-Counted Units		3-7
Free Elective Required		- 5-7
Total Units Required for AS-T Degree		60

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

- Develop a conceptual understanding of limit, continuity, differentiation, and integration as well as a thorough background in techniques and application of calculus.
- Demonstrate a working knowledge of selected topics from calculus, linear algebra, and a distribution of other branches of mathematics.
- Demonstrate the ability to solve problems, including applications outside of mathematics, by means of intuition, creativity, guessing, and the experience gained through the study of particular examples and mathematical ideas.
- Demonstrate the ability to use symbolic, graphical, numerical, and written representations of mathematical ideas.
- Use appropriate technology to enhance their mathematical thinking and understanding, solve mathematical problems, and judge the reasonableness of their results.