

# MATHEMATICS (AS-T)

## ASSOCIATE IN SCIENCE FOR TRANSFER

By successfully completing the courses for an Associate in Science in Mathematics for Transfer degree at Cerritos College, students will gain a practical and theoretical understanding for future studies involving mathematics. The role of mathematics is vital and growing, providing methods for finding solutions to problems in a wide range of sciences: social, biological, physical, behavioral, and managerial. More generally, mathematics is necessary for understanding and expressing ideas in science, engineering, and human affairs.

### Program Student Learning Outcomes

- Students utilize mathematical and problem solving techniques to solve real world applications.
- Student distinguish between differentiation and integration techniques.
- Students employ mathematical symbols, notation and syntax appropriately.
- Students explain definitions and theorems and apply them appropriately in formulating proofs.
- Students use appropriate technology to foster mathematical thinking and understanding.

### Program Requirements

Code Number	Course Title	Units
<b>Required Core</b>		
MATH 170	Analytic Geometry and Calculus I	4.0
MATH 190	Analytic Geometry and Calculus II	4.0
MATH 225	Calculus III	5.0
<b>List A: Select one (5 Units)</b>		
MATH 250	Linear Algebra and Differential Equations	5.0
<b>List B: Select One (3.5-4.5 Units)</b>		<b>3.5-4.5</b>
PHYS 201	Engineering Physics (4)	
CIS 180	Programming in C/C++ (3.5)	
MATH 112	Elementary Statistics (4-4.5)	
or MATH 112S	Enhanced Elementary Statistics	
<b>Total Units</b>		<b>21.5-22.5</b>

## ASSOCIATE IN SCIENCE FOR TRANSFER DEGREE REQUIREMENTS

- Completion of 60 semester units or 90 quarter units of degree-applicable courses,
- Minimum overall grade point average of 2.0,
- Minimum grade of "C" (or "P") for each course in the major, and
- Completion of IGETC and/or CSU GE-Breadth.