

# MATHEMATICS (AS-T DEGREE S0333)

## Natural Sciences Division

### Degree S0333

The Associate in Science in Mathematics for Transfer is designed to facilitate successful transfer to a baccalaureate mathematics program. This degree provides the lower division breadth and depth of calculus, differential equations, and linear algebra. Students who complete the requirements for this degree will be prepared to continue their studies in mathematics. Students in the STEM fields can complete a majority, if not all, of their lower division Math requirements by completing the Associate in Science in Mathematics for Transfer degree requirements.

To earn an Associate in Science in Mathematics for Transfer a student must complete 60 semester units that are eligible for transfer to the CSU that consist of: IGETC pattern or CSU GE breadth and a major of at least 18 units. Students must have a minimum GPA of 2.0 in all CSU-transferable coursework to receive an associate degree for transfer and all courses in the major must be completed with a C or better. Students earning an associate degree for transfer will not be required to complete any other local graduation requirements.

## Required Courses

Course Prefix	Course Name	Units
<b>Core Courses</b>		
MATH 180	Calculus and Analytic Geometry I	4
MATH 181	Calculus and Analytic Geometry II	4
MATH 280	Calculus and Analytic Geometry III	5
<b>List A:</b>		
MATH 260	Linear Algebra	3
MATH 290	Differential Equations	4
<b>Total Units for Major</b>		<b>20</b>
<b>CSU General Education of IGETC Pattern <sup>1</sup></b>		<b>39-42</b>
<b>Total Units</b>		<b>60</b>

<sup>1</sup> Courses may be double-counted with either CSU-GE or IGETC.

Math and Computer Science Website (<http://www.mtsac.edu/math/>)

## Program Learning Outcomes

*Upon successful completion of this program, a student will be able to:*

- Translate real world phenomena and conceptual ideas into mathematical symbols and equations.
- Use mathematical tools to manipulate, simplify, and transform mathematical expressions.
- Model real world phenomenon using mathematical equations.
- Develop techniques to analyze and interpret data.
- Use mathematical tools to effectively communicate outcomes of experiments and describe the nature of real world phenomenon and conceptual ideas.
- Develop ability to effectively use numbers and other abstract representations of real world phenomenon and conceptual ideas.

Review Student Learning Outcomes (SLOs) (<http://www.mtsac.edu/instruction/outcomes/sloinfo.html>) for this program.