# MATHEMATICS – ASSOCIATE IN SCIENCE DEGREE FOR TRANSFER TO CSU

Top Code:

1701.00

The Associate in Science in Mathematics for Transfer (AS-T) prepares a student for transfer into the CSU system for further study in pure or applied mathematics. Earning a 4-year degree in mathematics prepares students for careers in which mathematical skills are in great demand, such as science, technology, engineering, computer science, business, industry, medicine, education or government.

**PLEASE NOTE:** The courses that universities and colleges require for transfer vary. When selecting courses for transfer purposes, students should consult with Counseling Services to determine the particular transfer requirements of specific institutions.

## Associate Degree for Transfer Requirements

- 60 semester or 90 quarter CSU-transferable units.
- the California State University-General Education-Breadth pattern (CSU GE-Breadth); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern.
- a minimum of 18 semester or 27 quarter units in the major or area of emphasis as determined by the community college district.
- obtainment of a minimum grade point average (GPA) of 2.0.
- earn a grade of C or better, or "P" if the course is graded on a P/NP basis, in all courses required for the major or area of emphasis.

Pasadena City College may certify a maximum of 39 units as having fulfilled the CSU lower division general education requirements.

## Program Outcomes

- Develop critical thinking and problem solving skills.
- Increase the ability to read, write, and discuss mathematics.
- Develop an understanding of the usefulness of mathematics to other disciplines and life.

## Associate in Science in Mathematics for Transfer Degree

| Code | Title | Units |
|------|-------|-------|
| **Required Courses** | | |
| MATH 005A | SINGLE VARIABLE CALCULUS I | 5 |
| or MATH 005AH | HONORS SINGLE VARIABLE CALCULUS I | |
| MATH 005B | SINGLE VARIABLE CALCULUS II | 5 |
| or MATH 005BH | HONORS SINGLE VARIABLE CALCULUS II | |
| MATH 005C | MULTIVARIABLE CALCULUS | 5 |
| or MATH 005CH | HONORS MULTIVARIABLE CALCULUS | |
| **List A: Select 1 to 2 courses from below** | | **4** |
| MATH 010 | LINEAR ALGEBRA AND APPLICATIONS | |
| or MATH 010H | HONORS LINEAR ALGEBRA AND APPLICATIONS | |
| MATH 055 | DIFFERENTIAL EQUATIONS | |
| or MATH 055H | HONORS DIFFERENTIAL EQUATIONS | |
| **List B** | | |
| Select one of the following: | | 4-5 |
| CS 002 | FUNDAMENTALS OF COMPUTER SCIENCE I | |
| MATH 022 | DISCRETE MATHEMATICS | |
| PHYS 008A | PHYSICS FOR SCIENTISTS AND ENGINEERS I: MECHANICS | |
| or PHYS 001 | PHYSICS FOR SCIENTISTS AND ENGINEERS I: MECHANICS | |
| STAT 050 | ELEMENTARY STATISTICS | |
| or STAT 050H | HONORS ELEMENTARY STATISTICS | |
| or STAT 015 | STATISTICS FOR BUSINESS AND ECONOMICS | |
| or STAT 018 | STATISTICS FOR BEHAVIORAL AND SOCIAL SCIENCES | |
| **Required Subtotal** | | **23-24** |
| CS General Education or IGETC CSU Pattern | | 37-39 |
| Transferable Electives (as needed to reach 60 transferable units) | | |
| **Degree Total** | | **60** |

Visit the Program Mapper (https://pasadena-city.programmapper.ws/academics/interest-clusters/35afad1b-8598-4ecf-a320-0ed4834a7df8/programs/12f8e79b-acb7-aa3a-fa4e-699f24f08fa8/) for a suggested sequence of courses.

## General Education Requirements for the Associate in Science Degree for Transfer

- General Information (https://curriculum.pasadena.edu/academic-programs-leading-degree-certificate/)
- CSU Breadth (https://curriculum.pasadena.edu/academic-programs-leading-degree-certificate/#csubreadthtext)
- IGETC (https://curriculum.pasadena.edu/academic-programs-leading-degree-certificate/#igetctext)