

# PHYSICS

## Program Description

Physics, the fundamental science, conceptualizes the basic principles of the universe and establishes the foundation for astronomy, chemistry and geology. The beauty of physics lies in a small number of powerful concepts which expand our view of the world around us and which lead to many engineering applications from which we derive many benefits.

Learn more about this program on the [Physics website](#).

## Associate Degree for Transfer

This program also offers an Associate Degree for Transfer. Learn more and review the degree requirements on the [Physics AS-T listing](#).

## Program Learning Outcomes

- Students will know basic physics principles.
- Students will be able to apply their knowledge to practical, theoretical and experimental problems.
- Students will be prepared to advance to the next step in careers in science, industry and education.

## Award Type(s)

- AS = Associate in Science Degree

## Units Required

- Major: 59

## Additional Information

### Suggested Preparatory Courses for Degree:

Code	Title	Units
PHYS 2A or PHYS 6 or equivalent	GENERAL PHYSICS INTRODUCTORY PHYSICS	5
MATH 1A or MATH 1AH or equivalent	CALCULUS HONORS CALCULUS I	5
CHEM 25	FUNDAMENTALS OF CHEMISTRY (or equivalent)	5

## Associate Degree Requirements

Code	Title	Units
<b>English Proficiency</b>		
Select one of the following:		
ENGL 1A	COMPOSITION & READING	5
ENGL 1AH	HONORS COMPOSITION & READING	5
ENGL 1S & ENGL 1T	INTEGRATED COMPOSITION & READING and INTEGRATED COMPOSITION & READING	8
or equivalent		
<b>Mathematics Proficiency</b>		
Select one of the following:		
MATH 105	INTERMEDIATE ALGEBRA	5
MATH 180	QUANTITATIVE REASONING	5

or any MATH course approved for Foothill GE Area V, Communication & Analytical Thinking

A minimum of 90 units is required<sup>1</sup> to include:

- Completion of one of the following general education patterns: Foothill General Education, CSU General Education Breadth Requirements or the Intersegmental General Education Transfer Curriculum (IGETC)
- Core courses (59 units)

<sup>1</sup> Additional elective course work may be necessary to meet the 90-unit minimum requirement for the associate degree.

**Note:** All courses pertaining to the major must be taken for a letter grade. In addition, a grade of "C" or better is required for all core courses used for the degree.

## Core and Support Courses

Code	Title	Units
<b>Core Courses</b>		
CHEM 1A or CHEM 1AH	GENERAL CHEMISTRY HONORS GENERAL CHEMISTRY	5
CHEM 1B or CHEM 1BH	GENERAL CHEMISTRY HONORS GENERAL CHEMISTRY	5
MATH 1B or MATH 1BH	CALCULUS HONORS CALCULUS II	5
MATH 1C	CALCULUS	5
MATH 1D	CALCULUS	5
MATH 2A	DIFFERENTIAL EQUATIONS	5
MATH 2B	LINEAR ALGEBRA	5
PHYS 4A	GENERAL PHYSICS (CALCULUS)	6
PHYS 4B	GENERAL PHYSICS (CALCULUS)	6
PHYS 4C	GENERAL PHYSICS (CALCULUS)	6
PHYS 4D	GENERAL PHYSICS (CALCULUS)	6
<b>Total Units</b>		<b>59</b>