

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: 64

Additional Information

Suggested Preparatory Courses for Degree:

Code	Title	Units
PHYS 2A	GENERAL PHYSICS	5
or PHYS 6	INTRODUCTORY PHYSICS	
	or equivalent	
CHEM 25	FUNDAMENTALS OF CHEMISTRY (or equivalent)	5

Associate Degree Requirements

Code	Title	Units
English Proficiency		
Select one of the following:		
ENGL 1A	COMPOSITION & READING	5
ENGL 1AH	HONORS COMPOSITION & READING	5
ESLL 26	ADVANCED COMPOSITION & READING	5
	or equivalent	
Ethnic Studies		
Any course in the ETHN (Ethnic Studies) subject code, currently approved for Area F of CSU GE and Area 7 of IGETC		
Mathematics Proficiency		
College-level math course at or above the level of Intermediate Algebra		

A minimum of 90 units is required¹ 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 (64 units)

¹ 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
Core Courses		
CHEM 1A	GENERAL CHEMISTRY	5
CHEM 1B	GENERAL CHEMISTRY	5
MATH 1A	CALCULUS	5
or MATH 1AH	HONORS CALCULUS I	
MATH 1B	CALCULUS	5
or MATH 1BH	HONORS CALCULUS II	
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
Total Units		64