

PHYSICS 2.0, AS-T

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.

The Physics Department prepares students to advance to the next step towards a career in science, industry, or education. Students awarded an Associate in Science in Physics 2.0 for Transfer degree will know the basic principles of physics and be able to apply their knowledge to practical, theoretical, and experimental problems. Students who complete the Associate in Science in Physics 2.0 for Transfer degree will be ensured preferential and seamless transfer status to local CSUs for physics majors and majors in related disciplines. The requirements will fulfill the lower division major requirements at many local UCs and CSUs. Students are advised, however, to meet with a counselor to assess the course requirements for specific local CSUs and to validate which CSUs are considered local.

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

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.

Units Required

- Major: 58.5

Associate Degree Requirements

Associate in Science in Physics 2.0 for Transfer requires completion of a minimum of 90 units, including:

- Core courses for the major (58.5 units)¹
- California General Education Transfer Curriculum (Cal-GETC)² (45 units) (full certification is required)
- Transferable electives necessary to meet the 90-unit minimum requirement

¹ Some units from the core courses may be used to satisfy the GE requirement. Please see a counselor for more information.

² Cal-GETC began in Fall Quarter 2025. Students with catalog rights for Summer Session 2025 and previous catalog years may be able to use IGETC or CSU GE Breadth. Please see a counselor for more information.

Note: All courses pertaining to the major must be completed with a grade of "C" (or "P") or better. In addition, the student must obtain a minimum GPA of 2.0.

Core and Support Courses

Code	Title	Units
Core Courses		
C S 1A	OBJECT-ORIENTED PROGRAMMING METHODOLOGIES IN JAVA	4.5
or C S 2A	OBJECT-ORIENTED PROGRAMMING METHODOLOGIES IN C++	
or C S 3A	OBJECT-ORIENTED PROGRAMMING METHODOLOGIES IN PYTHON	
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		58.5