

PHYSICS, 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 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 for Transfer degree will be ensured preferential and seamless transfer status to CSUs for Physics majors and majors in related disciplines. The requirements will fulfill the lower division major requirements at many CSUs. Students are advised, however, to meet with a counselor to assess the course requirements for specific CSUs.

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: 44

Associate Degree Requirements

Associate in Science in Physics for Transfer requires completion of a minimum of 90 units to include:

- CSU General Education Breadth Requirements **or** the Intersegmental General Education Transfer Curriculum (IGETC)¹ (49-58 units) (full certification is required)
- Core courses (44 units, of which 11 units may satisfy the GE requirement)
- Transferable electives necessary to meet the 90-unit minimum requirement

¹ **Important Note:** Although it is possible to fulfill the requirements for the Associate Degree for Transfer by completing the IGETC for UC pattern, admission to CSU requires completion of an Oral Communication course (IGETC Area 1C; CSU GE Area A-1); therefore, students who plan to transfer to CSU should complete this course as part of their GE or elective units.

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		
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
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		44