



PROGRAM OF STUDY

Physics Associate in Science for Transfer

The goal of the physics program is to develop students' understanding and analysis of the physical world through mathematical techniques using qualitative and quantitative reasoning. The coursework prepares students to think critically and apply reasoning skills to analyze real world situations. All students receiving the AS-T degree in physics should be fully prepared for transfer to CSU/UC or other university physics programs armed with the foundation needed to pursue a baccalaureate degree in Physics to further prepared for careers as physicists in fields such as research, industry and education. The requirements are almost universal: three semesters of calculus-based physics and three semesters of calculus. It is strongly recommended that all physics majors take a course in differential equations in addition to the degree requirements, but this cannot be included as a requirement due to unit limitations.

Program Outcomes:

OUTCOME 1:

Identify and describe major concepts and theoretical principles as applied to physics.

OUTCOME 2:

Apply appropriate physical laws and mathematical techniques to analyze various physical situations.

OUTCOME 3:

Perform various scientific experiments and to analyze data to check agreement with theoretical predictions.

OUTCOME 4:

Students who complete the Associate in Science in Physics for Transfer degree will be eligible and prepared for admission (SB 1440 and Education Code 66746) to California State University system schools.

Courses Needed for Physics (Transfer)

Required Core (24-25 units):	Units
PHYS A185 Calculus Based Physics: Mechanics	4.0
PHYS A280 Calculus Based Physics: Electricity/Magnetism	4.0
PHYS A285 Calculus Based Physics: Modern	4.0
MATH A180 Calculus 1 <u>or</u> MATH A180H Calculus 1 Honors	4.0
MATH A185 Calculus 2 <u>or</u> MATH A185H Calculus 2 Honors	4.0
MATH A280 Calculus 3 <u>or</u> MATH A280H Calculus 3 Honors	4.0/5.0
Subtotal	24.0 – 25.0

Program Major Units: 24-25

Units

CSU or IGETC General Education Breadth: 35-36

Program Major Units: 24-25	Units
CSU or IGETC General Education Breadth: 35-36	
Subtotal	35.0 – 36.0

General Education Breadth units have been adjusted to account for courses double-counted in major program section	Units
Transfer elective units as needed to satisfy 60-unit degree requirement	
Subtotal	Varies

Total Units 60.0