

PHYSICS, ASSOCIATE IN SCIENCE DEGREE FOR TRANSFER

Course	Title	Units
Transfer Electives as needed to reach 60 transferable units		
Total Units		60

3_AST_PHYS

Physics is an attempt to understand natural phenomena, and is fundamental to related fields such as astronomy, biology, chemistry, geology and engineering. The goal of the physics program is to develop students' understanding and analysis of the physical world through mathematical techniques involving qualitative and quantitative reasoning. It is strongly recommended that all physics majors take a course in linear algebra and differential equations such as MATH C285 in addition to the degree requirements, but this cannot be included as a requirement due to unit limitations.

Program Level Student Learning Outcomes

Upon completion of this program, students will be able to:

1. Identify and describe major concepts and theoretical principles as applied to physics.
2. Apply appropriate physical laws and mathematical techniques to analyze various physical situations.
3. Perform various scientific experiments and to analyze data to check agreement with theoretical predictions.

Associate Degree for Transfer Requirements

1. Minimum of 60 CSU-transferable semester units. A minimum of 12 units must be in residence at Coastline College.
2. Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework.
3. Completion of a minimum of 18 semester units in an Associate Degree for Transfer major as detailed in the catalog.
4. Certified Completion of the California State University General Education-Breadth pattern (CSU GE Breadth - Coastline's Option 2 General Education pattern), OR the Intersegmental General Education Transfer Curriculum (IGETC - Coastline Option 3 General Education pattern).

Requirements for the Degree

Course	Title	Units
Required Core		
Students will complete all of the following:		
PHYS C185	Calculus Based Physics: Mechanics	4
PHYS C280	Calculus Based Physics: Electricity and Magnetism	4
PHYS C285	General Physics: Light and Modern Physics	4
MATH C180	Calculus 1	5
MATH C185	Calculus 2	5
MATH C280	Calculus 3	5
Total Required for the Major		27
CSU General Education or IGETC pattern		37-39