

PHYSICS: AS-T DEGREE

The Associate in Science in Physics for Transfer degree provides students with a thorough overview of the field of physics. Students will have demonstrated sufficient understanding in the fields of mechanics, electricity and magnetism, thermodynamics, mechanical and electromagnetic waves, modern physics, the scientific method and mathematics to successfully transfer to a four-year institution with a major in physics.

Career Opportunities

- **Research:** Basic research has as its goal the understanding of physical phenomena without a specific application in mind. Applied research leads to the solution of problems of national importance or of significant commercial value.
- **Development and Design:** Work in this area utilizes both basic and applied research to improve existing products, processes and instruments, and to develop new ones.
- **Teaching:** After earning an undergraduate or PhD physics degree, many physicists are employed in academic institutions, including instructors at the high school, community college, college, and university levels. In the latter, research and teaching are often combined.
- **Management and Other Areas:** Physicists can be found in a wide variety of areas such as research administration, university administration, science reporting, technical management and marketing, and in such fields as metallurgy, electronics, food processing and packaging, health and radiation safety, pollution control, computer technology, financial services and a broad and continually expanding array of other possibilities.

Program Learning Outcomes

1. Solve qualitative problems using physics principles.
2. Solve quantitative physics problems correctly using mathematics from the calculus sequence.
3. Operate laboratory equipment to successfully execute physics experiments.

Degree Requirements

Code	Title	Units
Required Courses		
PHYS-140	Physics for Scientists & Engineers 1	4
PHYS-240	Physics for Scientists & Engineers 2	4
PHYS-241	Physics for Scientists & Engineers 3	4
MATH-120	Calculus I	5
MATH-121	Calculus II	5
MATH-221	Multivariable Calculus	5
Total Units		27

To receive an Associate Degree for Transfer, students must complete 60 CSU transferable semester units with a grade point average of at least 2.0, and either the California State University General Education (CSU-GE) (<https://catalog.napavalley.edu/getting-your-degree/general-education/#csugeneraleducationtext>) or the Intersegmental General Education Transfer Curriculum (IGETC) (<https://catalog.napavalley.edu/getting-your-degree/general-education/#igetcgeneraleducationtext>) pattern. Consultation with a Counselor is highly encouraged to ensure all requirements are met.