PHYSICS 2.0: AS-T DEGREE

The Associate Degree in Science in Physics 2.0 for Transfer 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.

The Associate Degree in Science in Physics 2.0 for Transfer is designed to provide a clear pathway to a CSU institution for students who plan to transfer and complete a CSU major or baccalaureate degree in Physics. California Community College students who are awarded an Associate in Science in Physics 2.0 for Transfer are guaranteed admission with junior standing somewhere in the CSU system and given priority admission consideration to their local CSU institution or to a program that is deemed similar to their community college major. This priority does not guarantee admission to specific majors or institutions.

To fulfill the requirements for this degree, students will complete the required and elective courses in the area of emphasis and Cal-GETC pattern requirements totaling no more than 66 semester CSU-transferable units.

Additional NVC graduation requirements do not apply to this degree. Students must successfully pass all courses in the area of emphasis with a minimum of "C" (or "P") and maintain an overall minimum 2.0 GPA. Additionally, students pursuing this degree option must work with a counselor and faculty advisor to ensure appropriate elective course selections for their intended area of emphasis for the baccalaureate degree.

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. 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-C2210	Calculus I: Early Transcendentals	5
MATH-C2220	Calculus II: Early Transcendentals	5
MATH-220	Linear Algebra	3
MATH-221	Multivariable Calculus	5
MATH-222	Differential Equations	3
COMS-120	Introduction to Programming Concepts And Methodologies	3
or COMS-215	Programming Concepts and Methodology I	
Total Units		**36**

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 the California General Education Transfer Curriculum (Cal-GETC) *(*https://catalog.napavalley.edu/getting-your-degree/general-education/#calgetcgeneraleducationtext*) beginning fall 2025. Consultation with a Counselor is highly encouraged to ensure all requirements are met.*