

NATURAL SCIENCE: AS DEGREE

The Associate in Science Degree in Natural Science is an interdisciplinary degree program that focuses on the scientific study of the natural world with an emphasis in either life science or physical science. The program comprises core courses in chemistry and biology or chemistry and physics, a college-level mathematics requirement, and additional elective courses in biology or physical sciences. To fulfill the requirements for this degree, students will complete the required courses and work with a counselor to determine the appropriate pattern of general education courses based on the student's individual educational goals.

Career Opportunities

This degree prepares students for a variety of entry-level positions in science, technology, and health care fields. It also provides essential courses that are prerequisites for more advanced study in biology, chemistry, and other natural science fields as well as pre-medical, pre-dental, and pre-veterinary preparation.

Program Learning Outcomes

1. Communicate chemical and physical processes at the molecular level and how they relate to the macroscopic environment. (Life Science and Physical Sciences emphasis).
2. Demonstrate a proficiency of knowledge in molecular biology and genetics. (Life Science emphasis).
3. Solve quantitative problems while demonstrating a thorough understanding of physical laws. (Physical Sciences emphasis).

Degree Requirements

Option 1: Life Science Emphasis

Code	Title	Units
Required Core Courses (14-16 units)		
Chemistry- one course in general chemistry for science majors		
CHEM-120	General Chemistry 1	5
Biology- one course in general biology for science majors		
BIOL-120	General Biology	4
Mathematics- one course in calculus or two courses in pre-calculus		
MATH-120	Calculus I	5-7
or MATH-106 & MATH-108	College Algebra and Trigonometry	
Required Electives (4-5 units)		
Complete 4 units minimum of the following elective courses for a minimum of 18 units for the degree:		
BIOL-218	Human Anatomy	
BIOL-219	Human Physiology	
BIOL-220	General Microbiology	
BIOL-240	General Zoology	
BIOL-241	General Botany	
CHEM-121	General Chemistry 2	
PHYS-120	General Physics 1	
PHYS-140	Physics for Scientists & Engineers 1	
Total Units		18-21

OPTION 2: PHYSICAL SCIENCES EMPHASIS

Code	Title	Units
Required Core Courses (14-16 units)		
Chemistry- one course in general chemistry for science majors		
CHEM-120	General Chemistry 1	5
Physics- one course in general physics or physics for science majors		
PHYS-120	General Physics 1	4
or PHYS-140	Physics for Scientists & Engineers 1	
Mathematics- one course in calculus or two courses in pre-calculus		
MATH-120	Calculus I	5-7
or MATH-106 & MATH-108	College Algebra and Trigonometry	
Required Electives (4-5 units)		
Complete 4 units minimum of the following elective courses for a minimum of 18 units for the degree:		
BIOL-110	Survey of Biology	
BIOL-120	General Biology	
CHEM-121	General Chemistry 2	
CHEM-240	Organic Chemistry 1	
CHEM-241	Organic Chemistry 2	
GEOL-110 & GEOL-111	Physical Geology and Physical Geology Laboratory	
PHYS-121	General Physics 2	
PHYS-240	Physics for Scientists & Engineers 2	
PHYS-241	Physics for Scientists & Engineers 3	
Total Units		18-21

To receive an Associate Degree, students must complete 60 degree applicable semester units with a grade point average of at least 2.0. Students must also complete the NVC General Education (<https://catalog.napavalley.edu/getting-your-degree/general-education/#nvcgeneraleducationtext>) pattern to earn an Associate degree. Consultation with a Counselor is highly encouraged to ensure all requirements are met.