SCIENCE AND MATH, ASSOCIATE OF ARTS DEGREE

Banner Code: 3_AA_SCMA
Financial Aid Eligible

Courses in the Science and Math area develop an understanding of mathematical and scientific methods and knowledge. Continuing study in science and math will prepare students for a wide range of careers in technology, the health field, education, research, engineering, and business.

Some university majors within Science and Math include: Accounting, Astronomy, Biology, Biotechnology, Botany, Chemistry, Computer Science, Ecology, Education, Engineering, Geography, Marketing, Math, Medicine, Microbiology, Nursing, Pharmacy, Physics, and Veterinary Medicine.

Program Level Student Learning Outcomes

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

1. Design and apply the process of science to address a hypothesis.
2. Find, select, evaluate, and communicate scientific information present in primary research literature, mass media, online, or other sources.
3. Adequately explain thinking and mathematical processes, and justify mathematical solutions effectively and accurately.

Review Graduation Requirements (https://catalog.cccd.edu/coastline/graduation-requirements/associate-degree/) and General Education (https://catalog.cccd.edu/coastline/general-education/).

Course	Title	Units
Required Core		
Complete the following:		
Select at least 18 units of the following: At least one course should be a science course and at least one should be a math course.		18
AGNG C122	Biology of Aging	
or BIOL C120	Biology of Aging	
ANTH C185	Physical Anthropology	
ASTR C100	Introduction to Astronomy	
ASTR C100L	Astronomy Laboratory	
BIOL C100	Introduction to Biology	
BIOL C100C	Introduction to Biology Lecture/Lab	
BIOL C100L	Introduction to Biology Lab	
BIOL C102	Introduction to the Concepts of Anatomy and Physiology	
BIOL C103	Introduction to Marine Science	
BIOL C103L	Marine Science Lab	
BIOL C104	Medical Terminology for Health Professionals	
BIOL C106	Human Ecology	
or ECOL C100	Human Ecology	
BIOL C180	Cell and Molecular Biology	
BIOL C185	Diversity of Organisms	
BIOL C200	Pharmacology	
BIOL C210	General Microbiology	
BIOL C220	Human Anatomy	
BIOL C221	Introduction to Anatomy and Physiology	
BIOL C225	Human Physiology	
BIOL C226	Pathophysiology	
BIOL C281	Biochemistry	
or CHEM C281	Biochemistry	
BIOL C283	Genetics	
BIOL C291	Work Based Learning Llimited to a maximum of 3 units.	
BIOL C292	Work Based Learning Llimited to a maximum of 3 units.	
CHEM C100	Principles of Chemistry	
CHEM C110	Introduction to Chemistry	
CHEM C130	Preparation for General Chemistry	
CHEM C140	Survey of Chemistry and Physics	
or PHYS C140	Survey of Chemistry and Physics	
CHEM C180	General Chemistry A	
CHEM C180L	General Chemistry A Lab	
CHEM C185	General Chemistry B	
CHEM C185L	General Chemistry B Lab	
CHEM C220	Organic Chemistry A	
CHEM C220L	Organic Chemistry A Lab	
CHEM C225	Organic Chemistry B	
CHEM C225L	Organic Chemistry B Lab	
GEOG C180	Physical Geography	
GEOG C180L	Physical Geography Lab	
GEOL C105	General Geology	
GEOL C105L	Geology Lab	
GEOL C106	Earth Sciences for Teachers	
GEOL C115	California Geology	
GEOL C185	Historical Geology	
GEOL C185L	Historical Geology Lab	
MRSC C100	Introduction to Marine Science	
MRSC C100L	Marine Sciences Lab	
MATH C100	Liberal Arts Mathematics	
MATH C103	Statistics for Elementary Teachers	
MATH C104	Mathematics for Elementary Teachers	
MATH C106	Geometry for Elementary Teachers	
MATH C115	College Algebra	
MATH C120	Trigonometry	
MATH C140	Business Calculus	
MATH C150	Finite Mathematics With Applications	
MATH C160	Introduction to Statistics	
MATH C170	Precalculus	
MATH C180	Calculus 1	
MATH C185	Calculus 2	
MATH C280	Calculus 3	
MATH C285	Introduction to Linear Algebra and Differential Equations	

Course	Title	Units
MATH C291	Mathematical Sciences Work Based Learning	
PHYS C110	Conceptual Physics	
PHYS C110L	Conceptual Physics Lab	
PHYS C120	Algebra Based Physics: Mechanics	
PHYS C125	Algebra Based Physics: Electricity and Magnetism	
PHYS C185	Calculus Based Physics: Mechanics	
PHYS C280	Calculus Based Physics: Electricity and Magnetism	
PHYS C285	Calculus Based Physics: Modern Physics	
Units Required for Area of Emphasis		18
Local General Education, CSU General Education, or IGETC pattern		Varies
Electives to satisfy unit requirement		Varies
Total Units		**60**