

SCIENCE, A.S.

Location(s): AL, AN, LO, MA, NOL, WO
NOVA Code: 880

Purpose

The curriculum is designed for individuals who are interested in a professional or scientific program and who plan to transfer to a four-year college or university to complete a baccalaureate degree with a major in one of the following fields: agriculture, biology, chemistry, pre-dentistry, forestry, geology, oceanography, pharmacy, physics, physical therapy, pre-medicine, science education, or mathematics.

Transfer Information

Students are advised to work closely with the faculty and counseling staff for program and course scheduling. Electives should be chosen carefully after investigation of the requirements of the transfer institution. The responsibility for proper course selection rests with the student. Students are encouraged to complete the A.S. degree before transferring.

Recommended Preparation

Satisfactory completion of the following high school units or equivalent as a minimum: 4 units of English, 3 units of college preparatory mathematics, 1 unit of laboratory science, and 1 unit of social science.

Two Years

Course	Title	Credits
1st Semester		
ENG 111	College Composition I	3
General Education Elective (https://catalog.nvcc.edu/general-education-electives/) ¹		3
Select one of the following: ^{2,3}		4-5
Physical or Life Science Elective w/Lab (p. 1)		
MTH 167	PreCalculus with Trigonometry	
MTH 263	Calculus I	4
SDV 100 or SDV 101	College Success Skills or Orientation to:	1
Credits		15-16
2nd Semester		
ENG 112	College Composition II	3
MTH 264	Calculus II ⁴	4
Physical or Life Science Elective w/Lab (p. 1) ²		4
Social/Behavioral Sciences Elective (https://catalog.nvcc.edu/general-education-electives/#ge_soc_beh_sci_elec)		3
Credits		14
3rd Semester		
General Education Elective (https://catalog.nvcc.edu/general-education-electives/) ¹		3
HIS Elective (https://catalog.nvcc.edu/general-education-electives/#ge_hist_elec)		3
Humanities/Fine Arts Elective (https://catalog.nvcc.edu/general-education-electives/#ge_hum_fa_elec) ⁵		3
Select one of the following:		3-4
MTH Elective (p. 1)		
Physical or Life Science Elective w/Lab (p. 1) ²		
Select one of the following:		3-4
MTH Elective (p. 1)		
Physical or Life Science Elective w/Lab (p. 1) ²		
Credits		15-17

4th Semester

General Education Elective (https://catalog.nvcc.edu/general-education-electives/) ⁶		3
Humanities/Fine Arts Elective (https://catalog.nvcc.edu/general-education-electives/#ge_hum_fa_elect) ⁴		3
Physical or Life Science Elective w/Lab (p. 1) ²		4-5
Select one of the following:		3
CST 110	Introduction to Human Communication	
CST 100	Principles of Public Speaking	
CST 126	Interpersonal Communication	
CST 229	Intercultural Communication	
Select one of the following:		3-4
MTH Elective (p. 1)		
Physical or Life Science Elective w/Lab (p. 1) ²		
Credits		16-18
Total Credits		60-65

Electives should be chosen with the advice of an academic advisor to meet the requirements of the intended transfer institution.

- ¹ If selecting a science course, it must be chosen from Physical and Life Science w/ Lab below.
- ² If you are following a specific major please refer to the recommended course plans below. These plans provide guidance on which core courses to choose each semester. BIO 142 Human Anatomy and Physiology II and BIO 142 Human Anatomy and Physiology II, CHM 101 Introductory Chemistry I, PHY 100 Elements of Physics, or ENV 121 Foundations of Environmental Science and ENV 122 Applications in Environmental Science **do not** satisfy this requirement.
- ³ MTH 161 PreCalculus I and MTH 162 PreCalculus II may both be taken in place of MTH 167 PreCalculus with Trigonometry
- ⁴ For students who plan to major in Biology, MTH 264 Calculus II may be replaced with MTH 245 Statistics I.
- ⁵ Students must choose courses from two of the following three areas: Fine Arts, Humanities, and Literature. Credit will not be awarded for taking two courses from the same area.
- ⁶ Choose from General Education listing. If choosing a science, it must follow footnote #2. This elective is not needed if selections for all other requirements total 60 credits or more.

Math Electives

Math electives must be selected from the following:

Code	Title	Credits
MTH 265	Calculus III	4
MTH 266	Linear Algebra	3
MTH 267	Differential Equations	3
MTH 283	Probability and Statistics	3
MTH 288	Discrete Mathematics	3

Physical or Life Science Elective w/Lab

All science electives (including General Education sciences) must be selected from the following:

Code	Title	Credits
BIO 101	General Biology I	4
BIO 102	General Biology II	4
BIO 110	General Botany	4

BIO 207	General Zoology	4
CHM 111	General Chemistry I	4
CHM 112	General Chemistry II	4
GOL 105	Physical Geology	4
GOL 106	Historical Geology	4
GOL 111	Oceanography I	4
GOL 112	Oceanography II	4

any 200-level biology, chemistry, geology, or physics course

Science and ENV 122 Applications in Environmental Science **do not** satisfy this requirement.

Students Who Plan to Major in Biology

Code	Title	Credits
CHM 111 & CHM 112	General Chemistry I and General Chemistry II	8
BIO 101 & BIO 102 or BIO 110 & BIO 207	General Biology I and General Biology II General Botany and General Zoology	8
Select one of the following:		8
BIO 206 & PHY 201	Cell Biology and General College Physics I	
PHY 201 & PHY 202	General College Physics I and General College Physics II	

Students Who Plan to Major in Chemistry

Code	Title	Credits
CHM 111 & CHM 112	General Chemistry I and General Chemistry II	8
CHM 241 & CHM 242	Organic Chemistry I and Organic Chemistry II	6
CHM 245 & CHM 246	Organic Chemistry I Laboratory and Organic Chemistry II Laboratory	4
2 semesters of physics ¹		

¹ Please see transfer school for required physics class.

Students Who Plan to Major in Physics

Code	Title	Credits
PHY 241 & PHY 242	University Physics I and University Physics II	8
MTH 265	Calculus III	4
MTH 267	Differential Equations	3
Select two of the following:		6-11
CHM 111 & CHM 112	General Chemistry I and General Chemistry II	
PHY 243	Modern Physics	
MTH 266	Linear Algebra	

Students Who Plan to Major in Geology

Code	Title	Credits
GOL 105	Physical Geology	4
GOL 106	Historical Geology	4
GOL 111	Oceanography I	4
GOL 112	Oceanography II	4

Please note: BIO 142 Human Anatomy and Physiology II and BIO 142 Human Anatomy and Physiology II, CHM 101 Introductory Chemistry I, PHY 100 Elements of Physics, or ENV 121 Foundations of Environmental