

MAJOR IN NATURAL SCIENCES, PHYSICAL SCIENCE CONCENTRATION

The Physical Science concentration begins with two semesters each of calculus, chemistry, and physics, plus a semester of biological science. Students then complete the major by earning two minors selected from

Biochemistry, Chemistry, Computer Science, Geology, Mathematics, Statistics, or Physics. Completion of the double minor gives an unusual breadth in the physical sciences. Recent graduates have pursued careers in the sciences. Others use this background as a basis for graduate work and research or for entry into medical or veterinary professional programs.

Requirements Effective Fall 2025

Freshman

		AUCC	Credits
CHEM 111	General Chemistry I (GT-SC2)	3A	4
CHEM 112	General Chemistry Lab I (GT-SC1)	3A	1
CO 150	College Composition (GT-CO2)	1A	3
Select one pair of courses from the following:			8
Group A:			
MATH 155	Calculus for Biological Scientists I (GT-MA1)	1B	
MATH 255	Calculus for Biological Scientists II	1B	
Group B:			
MATH 160	Calculus for Physical Scientists I (GT-MA1)	1B	
MATH 161	Calculus for Physical Scientists II (GT-MA1)	1B	
Minor ¹			9
Social and Behavioral Sciences (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#social-behavioral-sciences)		3C	3
Electives			3
Total Credits			31

Sophomore

CHEM 113	General Chemistry II		3
CHEM 114	General Chemistry Lab II		1
PH 141	Physics for Scientists and Engineers I (GT-SC1)	3A	5
PH 142	Physics for Scientists and Engineers II (GT-SC1)	3A	5
STAT 301	Introduction to Applied Statistical Methods		3
Minor ¹			8
Electives			3
Total Credits			28

Junior

Select four credits from the following:			4
Group A:			
BZ 110	Principles of Animal Biology (GT-SC2)	3A	
BZ 111	Animal Biology Laboratory (GT-SC1)	3A	
Group B:			
BZ 120	Principles of Plant Biology (GT-SC1)	3A	
Group C:			
LIFE 102	Attributes of Living Systems (GT-SC1)	3A	
1C (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#aucc)		1C	3
Advanced Writing (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#advanced-writing)		2	3
Arts and Humanities (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)		3B	3

Historical Perspectives (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#historical-perspectives)	3D	3
Minor ^{1, 2, 3, 4}		15
Total Credits		31
Senior		
Arts and Humanities (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)		3
Building Foundations/Perspectives ²	4B	3
Capstone Course ³	4C	3
Using Competencies ⁴	4A	3
Minor ^{1, 2, 3, 4}		12
Electives ⁵		6
Total Credits		30
Program Total Credits:		120

¹ Declare and complete two minors from the following list: Biochemistry, Chemistry, Computer Science, Geology, Mathematics, Physics, Statistics, Applied Statistics.
² Complete a 3 credit course satisfying AUCC category 4B that is offered within a major that is the same as one of the minors that will be completed.
³ Complete a 3 credit course satisfying AUCC category 4C that is offered within a major that is the same as one of the minors that will be completed.

⁴ Complete a 3 credit course satisfying AUCC category 4A that is offered within a major that is the same as one of the minors that will be completed.
⁵ Select enough elective credits to bring the program total to a minimum of 120 credits, of which at least 42 must be upper-division (300- and 400-level).

Major Completion Map

Freshman

Semester 1	Critical	Recommended	AUCC	Credits
CO 150 College Composition (GT-CO2)			1A	3
Select one course from the following:				4
MATH 155 Calculus for Biological Scientists I (GT-MA1)		X	1B	
MATH 160 Calculus for Physical Scientists I (GT-MA1)		X	1B	
Social and Behavioral Sciences (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#social-behavioral-sciences)			3C	3
Minor Requirement Courses				6
MATH 117, MATH 118 may be necessary for some students to fulfill pre-calculus requirements.	X			
Total Credits				16

Semester 2	Critical	Recommended	AUCC	Credits
CHEM 111 General Chemistry I (GT-SC2)			3A	4
CHEM 112 General Chemistry Lab I (GT-SC1)			3A	1
Select one course from the following:				4
MATH 255 Calculus for Biological Scientists II		X	1B	
MATH 161 Calculus for Physical Scientists II (GT-MA1)		X	1B	
Elective				3
Minor Requirement Course				3
MATH 124, MATH 125, MATH 126 may be necessary for some students to fulfill pre-calculus requirements.	X			
Total Credits				15

Sophomore

Semester 3	Critical	Recommended	AUCC	Credits
CHEM 113 General Chemistry II				3
CHEM 114 General Chemistry Lab II				1

PH 141	Physics for Scientists and Engineers I (GT-SC1)	X	3A	5
Elective				3
Minor Requirement Courses				4
MATH 155 or MATH 160 must be completed by the end of Semester 3.				X

Total Credits **16**

Semester 4		Critical	Recommended	AUCC	Credits
PH 142	Physics for Scientists and Engineers II (GT-SC1)			3A	5
STAT 301	Introduction to Applied Statistical Methods				3
Minor Requirement Courses					4

Total Credits **12**

Junior

Semester 5		Critical	Recommended	AUCC	Credits
1C (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#aucc)				1C	3
Advanced Writing (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#advanced-writing)				2	3
Arts and Humanities (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)				3B	3
Minor Requirement Courses					6

Total Credits **15**

Semester 6		Critical	Recommended	AUCC	Credits
Select one group from the following:					4
Group A:					
BZ 110	Principles of Animal Biology (GT-SC2)			3A	
BZ 111	Animal Biology Laboratory (GT-SC1)			3A	
Group B:					
BZ 120	Principles of Plant Biology (GT-SC1)			3A	
Group C:					
LIFE 102	Attributes of Living Systems (GT-SC1)			3A	
Historical Perspectives (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#historical-perspectives)				3D	3
Minor Requirement Courses					9

Total Credits **16**

Senior

Semester 7		Critical	Recommended	AUCC	Credits
Arts and Humanities (https://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)				3B	3
Building Foundations/Perspectives				4B	3
Elective					3
Minor Requirement Courses					6

Total Credits **15**

Semester 8		Critical	Recommended	AUCC	Credits
Capstone Course		X		4C	3
Using Competencies		X		4A	3
Elective					3
Minor Requirement Courses					6
The benchmark courses for the 8th semester are the remaining courses in the entire program of study.					X

Total Credits **15**

Program Total Credits: **120**