MAJOR IN BIOLOGICAL SCIENCE, BOTANY CONCENTRATION

Major Completion Map

Distinctive Requirements for Degree Program:
TO PREPARE FOR FIRST SEMESTER: The curriculum for the Biological Sciences major - Botany concentration assumes students enter college prepared to take calculus. Entering students who are not prepared to take calculus will need to fulfill pre-calculus requirements in the first semester. Talk to your advisor. LIFE 102 requires high school chemistry as a prerequisite; CHEM 111 requires Algebra II as a prerequisite (this prerequisite is met by having Algebra II by test credit, transfer credit, or placement out of MATH 117 and MATH 118 on Math Placement Exam). C or better in all biological, physical science, and mathematical courses used to meet requirements for the major. Term 4 may have to be adjusted if the student chooses 2 semesters of Organic Chemistry, do not attempt more than three science and math courses per term. It is recommended that you do not take BZ 310 and BZ 350 together.

Freshman

Semester 1		**Critical**	**Recommended**	**AUCC**	**Credits**
CO 150	College Composition (GT-CO2)	X		1A	3
LIFE 102	Attributes of Living Systems (GT-SC1)	X		3A	4
Select one course from the following:		X			4
MATH 155	Calculus for Biological Scientists I (GT-MA1)			1B	
MATH 160	Calculus for Physical Scientists I (GT-MA1)			1B	
Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)			X	3B	3
	Total Credits				**14**

Semester 2		**Critical**	**Recommended**	**AUCC**	**Credits**
CHEM 111	General Chemistry I (GT-SC2)	X		3A	4
CHEM 112	General Chemistry Lab I (GT-SC1)	X		3A	1
LIFE 103	Biology of Organisms-Animals and Plants (GT-SC1)	X		3A	4
Arts and Humanities (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities)			X	3B	3
Diversity, Equity, and Inclusion (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#diversity-equity-inclusion)			X	1C	3
CO 150 must be completed by the end of Semester 2.		X			
MATH 124, MATH 125 may be necessary for some students to fulfill pre-calculus requirements.			X		
	Total Credits				**15**

Sophomore

Semester 3		**Critical**	**Recommended**	**AUCC**	**Credits**
BZ 220	Introduction to Evolution	X			3
CHEM 113	General Chemistry II	X			3
CHEM 114	General Chemistry Lab II	X			1
Historical Perspectives (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#historical-perspectives)			X	3D	3
Electives			X		6
MATH 155 or MATH 160 must be completed by the end of Semester 3.		X			
	Total Credits				**16**

Semester 4		**Critical**	**Recommended**	**AUCC**	**Credits**
CHEM 245	Fundamentals of Organic Chemistry	X			4
CHEM 246	Fundamentals of Organic Chemistry Laboratory	X			1
Select one course from the following:		X			3
STAT 301	Introduction to Applied Statistical Methods				
STAT 307	Introduction to Biostatistics				
Social and Behavioral Sciences (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#social-behavioral-sciences)			X	3C	3
Elective			X		3
	Total Credits				**14**

Junior

Semester 5		Critical	Recommended	AUCC	Credits
Select one course from the following:		X			3-4
BC 351	Principles of Biochemistry				
BC 401	Comprehensive Biochemistry I				
BZ 331	Developmental Plant Anatomy	X			4
Select one course from the following:		X			5
PH 121	General Physics I (GT-SC1)			3A	
PH 141	Physics for Scientists and Engineers I (GT-SC1)			3A	
Upper Division Botany Concentration Elective (see list on Concentration Requirements tab)			X		3
STAT 301 or STAT 307 must be completed by the end of Semester 5.		X			
	Total Credits				**15-16**

Semester 6		Critical	Recommended	AUCC	Credits
To complete BC 401 series option:					0-3
BC 403	Comprehensive Biochemistry II				
BZ 325	Plant Systematics				4
BZ 440	Plant Physiology				3
BZ 441	Plant Physiology Laboratory				2
Select one course from the following:					5
PH 122	General Physics II (GT-SC1)		X	3A	
PH 142	Physics for Scientists and Engineers II (GT-SC1)		X	3A	
	Total Credits				**15**

Senior

Semester 7		Critical	Recommended	AUCC	Credits
BZ 310	Cell Biology	X			4
Advanced Writing (http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#advanced-writing)			X	2	3
Upper Division Botany Concentration Electives (see list on Concentration Requirements tab)			X		6
Elective					3
	Total Credits				**16**

Semester 8		Critical	Recommended	AUCC	Credits
BZ 350	Molecular and General Genetics	X		4A,4B	4
BZ 450	Plant Ecology	X		4C	4
Upper Division Botany Concentration Electives (see list on Concentration Requirements tab)		X			3
Elective			X		2-4
The benchmark courses for the 8th semester are the remaining courses in the entire program of study.		X			
	Total Credits				**13-15**
	Program Total Credits:				**120**