

COURSE REQUIREMENTS FOR BACHELOR OF SCIENCE IN BOTANY

1. THE GENERAL EDUCATION AND TOTAL UNIVERSITY CREDIT REQUIREMENTS MUST BE MET (See Note 1 below). 128 total minimum credits are required for graduation. 36 of these must be upper division credits.

2. COURSES IN BIOLOGICAL SCIENCES:	NUMBER OF CREDITS
BIOL 1101 Biology I	4
BIOL 1102 Biology II	4
BIOS 2206 Cell Biology	4
BIOS 2209 General Ecology	4
BIOS 3315 ² Introduction to Biometry	3
BIOS 3358 General Genetics	3
BIOS g4404 Plant Physiology	4
BIOS g4406 Plant Diversity and Evolution	4
BIOS g4408 Plant Ecology	3
BIOS g4412 Systematic Botany	4
BIOS g4417 Organic Evolution	3
BIOS 4491,4492 Seminar	2

And at least 6 credits from the following upper division Botany electives:

BIOS 3313 Plants and Human Prospects	3
BIOS g4405 Plant Form and Function	3
BIOS g4416 Population and Community Ecology	3
BIOS g4409 Plant/Animal Interactions	3
BIOS g4489 Field Ecology	3
BIOS g4481/g4482 Independent Problems	1-6
BIOS 4493 Senior Thesis	1-6

3. COURSES IN MATHEMATICS

MATH 1160 ³ Brief Calculus	4
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4. COURSES IN CHEMISTRY and PHYSICS⁴

CHEM 1111 General Chemistry I	5
CHEM 1112 General Chemistry II	4
CHEM 3301,3303 Organic Chemistry I, Lab	4
PHYS 1111,1113 General Physics I, Lab	4

Notes:

1. Students pursuing a Bachelor of Science degree must satisfy goals 1, 2, 3, 4, and 5, two of goals 6, 7, and 8, and three of goals 9, 10, 11, and 12. Goal 10 may be satisfied by either 10A or 10B.
2. The requirement for BIOS 3315 may be satisfied by taking MATH 2253.
3. MATH 1170 may be substituted for MATH 1160. MATH 1160 has a prerequisite of MATH 1143. MATH 1170 has a prerequisite of MATH 1147. Prerequisite requirements may be satisfied by the Mathematics placement exam.
4. Students planning on pursuing advanced degrees are strongly advised to take CHEM 3302, 3304 or BIOS 4432, and PHYS 1112, 1114.

RECOMMENDED COURSE SELECTION - B.S. in BOTANY

Fall Semester

Spring Semester

For Students Who Qualify to take Math 1147 During their First Semester

Freshman Year

BIOL 1101 ²	Biology I	4 cr	BIOL 1102 ²	Biology II	4 cr
MATH 1147 ³	Precalculus	5 cr	MATH 1160	Brief Calculus	4 cr
or MATH 1143 <u>and</u> MATH 1144			COMM 1101	Principles of Speech	2 cr
ENGL 1101	English Composition	3 cr	General Education Requirements		<u>6 cr</u>
General Education Requirements		<u>3 cr</u>			
		15 cr			16 cr

Sophomore Year

BIOS 2209	General Ecology	4 cr	BIOS 2206	Cell Biology	4 cr
CHEM 1111	General Chemistry I	5 cr	CHEM 1112	General Chemistry II	4 cr
PHYS 1111	General Physics I	3 cr	PHYS 1112	General Physics II	3 cr
PHYS 1113	General Physics I Lab	1 cr	PHYS 1114	General Physics II Lab	1 cr
Foreign Language or Elective ⁴		<u>3-4 cr</u>	Foreign Language or Elective ³		<u>3-4 cr</u>
		16-17 cr			15-16 cr

For Students Who Qualify to take Math 1160 During their First Semester

Freshman Year

BIOL 1101 ²	Biology I	4 cr	BIOL 1102 ²	Biology II	4 cr
CHEM 1111	General Chemistry	5 cr	CHEM 1112	General Chemistry II	4 cr
MATH 1160 ³	Brief Calculus	5 cr	COMM 1101	Principles of Speech	2 cr
or MATH 1143 <u>and</u> MATH 1144			General Education Requirements		<u>6 cr</u>
ENGL 1101	English Composition	<u>3 cr</u>			
		17 cr			16 cr

Sophomore Year

BIOS 2209	General Ecology	4 cr	BIOS 2206	Cell Biology	3 cr
PHYS 1111	General Physics I	3 cr	BIOS 2207	Cell Biology Lab	1 cr
PHYS 1113	General Physics I Lab	1 cr	PHYS 1112	General Physics II	3 cr
Foreign Language or Elective ⁴		3-4 cr	PHYS 1114	General Physics II Lab	1 cr
Electives ⁵		<u>3 cr</u>	Foreign Language or Elective ⁴		3-4 cr
		14-15 cr	Electives ⁵		<u>3 cr</u>
					14-15 cr

RECOMMENDED COURSE SELECTION - B.S. in BOTANY

Fall Semester

Spring Semester

Junior Year					
BIOS 3304	Elem of Plant Phys	4 cr	BIOS 3312	Systematic Botany	4 cr
BIOS 3358	Genetics	3 cr	CHEM 3302	Organic Chem II	3 cr
CHEM 3301	Organic Chem I	3 cr	CHEM 3304	Organic Chem II Lab	1 cr
CHEM 3303	Organic Chem I Lab	1 cr	General Education Requirements		3 cr
BIOS 4405	Plant Anatomy	3 cr	Elective ⁵		<u>4 cr</u>
General Education Requirements		<u>3 cr</u>			
		17 cr			15 cr
Senior Year					
BIOS 4406	Plant Morphology	4 cr	BIOS 3317	Organic Evolution	3 cr
BIOS 4491	Seminar	1 cr	BIOS 4492	Seminar	1 cr
General Education Requirements		3 cr	Electives ⁵		<u>11-13 cr</u>
Electives ⁵		<u>6-7 cr</u>			
		14-15 cr			15-17 cr

Students should consult with their advisors and with the current departmental list of course rotations to determine which semesters and years biology electives will be taught.