

## COURSE REQUIREMENTS FOR BACHELOR OF ARTS OR BACHELOR OF SCIENCE IN BOTANY

A. THE GENERAL EDUCATION AND TOTAL UNIVERSITY CREDIT REQUIREMENTS MUST BE MET. NOTE: See General Education Goals for a B.S. or a B.A. degree (ISU Catalog). 128 total minimum credits are required for graduation. 36 of these must be upper division credits.

B. COURSES IN BIOLOGICAL SCIENCES: NUMBER OF CREDITS

**EITHER THESE TWO COURSES**

BIOL 101	Biology I	4
BIOL 102	Biology II	4

**OR THESE FOUR COURSES**

BIOL 202	General Zoology	3
BIOL 202L	General Zoology Lab	1
BIOL 203	General Botany	3
BIOL 203L	General Botany Lab	1

**AND THESE COURSES**

BIOS 209	General Ecology and Lab	4
BIOS 206	Cell Biology	3
BIOS 207	Cell Biology Lab	1
BIOS 304	Elements of Plant Physiology	4
BIOS 312	Systematic Botany	4
BIOS 317	Organic Evolution	3
BIOS 358	General Genetics	3
BIOS 405	Plant Anatomy	3
BIOS 406	Plant Morphology	4
BIOS 491	Seminar	1
BIOS 492	Seminar	1

Additional courses in Biological Sciences that are highly recommended, but not required:

BIOS 315	Introduction to Biometry	3
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C. COURSES IN MATHEMATICS

MATH 147	Precalculus	5
(OR MATH 143 <u>and</u> 144)		
MATH 160	Brief Calculus	4

D. COURSES IN CHEMISTRY

CHEM 111	General Chemistry I	5
CHEM 112	General Chemistry II	4
CHEM 301	Organic Chemistry I	3
CHEM 303	Organic Chemistry I Lab	1
CHEM 302	Organic Chemistry II	3
CHEM 304	Organic Chemistry II Lab	1

E. COURSES IN PHYSICS

PHYS 111	General Physics I	3
PHYS 113	General Physics I Lab	1
PHYS 112	General Physics II	3
PHYS 114	General Physics II Lab	1

F. COURSE IN FOREIGN LANGUAGE

LANG XXX	Foreign Language	8
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(Any of the foreign language offered at ISU. This requirement is waived for those who have taken 2 or more years of high school foreign language with a grade of "C" or above. A high school transcript must be delivered to the Department of Biological Sciences).



## Fall Semester

## Spring Semester

		Junior Year			
Bios	304	- Elem of Plant Phys	4 cr	Bios	312 - Systematic Botany 4 cr
Bios	358	- Genetics	3 cr	Chem	302 - Organic Chem II 3 cr
Chem	301	- Organic Chem I	3 cr	Chem	304 - Organic Chem II Lab 1 cr
Chem	303	- Organic Chem I Lab	1 cr	General Education Requirements	3 cr
Bios	405	- Plant Anatomy	3 cr	<sup>5</sup> Elective	<u>4 cr</u>
General Education Requirements			<u>3 cr</u>		15 cr
			17 cr		

		Senior Year			
Bios	406	- Plant Morphology	4 cr	Bios	317 - Organic Evolution 3 cr
Bios	491	- Seminar	1 cr	Bios	492 - Seminar 1 cr
General Education Requirements			3 cr	<sup>5</sup> Electives	<u>11-13 cr</u>
<sup>5</sup> Electives			<u>6-7 cr</u>		15-17 cr
			14-15 cr		

<sup>1</sup>Students pursuing a Bachelor of Arts degree must take 6 credits of General Education Requirements in addition to those identified above. See Goals 6, 7, 8, 9, 10A and 10B, 11 and 12.

<sup>2</sup>Or BIOL 202 (General Zoology), BIOL 202L (General Zoology Lab), BIOL 203 (General Botany) and BIOL 203L (General Botany Lab), 8 cr.

<sup>2</sup>Students who qualify, according to their ACT, SAT or math proficiency exam scores, should enroll in Math 147.

<sup>4</sup>This departmental requirement for the Botany major will be waived by the Department of Biological Sciences if the student has 2 or more years of high school foreign language with a grade of "C" or above. The student, however, must still satisfy the General Education Requirements of Goal 10A and 10B for a Bachelor of Arts degree and 3 of goals 9, 10, 11 and 12 for a Bachelor of Science degree.

<sup>5</sup>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 offered.