

**MAJOR: BIOLOGY, B.S.**

DEPARTMENT OF BIOLOGY

**PLAN A**

PLAN A			
FIRST YEAR			
FALL SEMESTER		SPRING SEMESTER	
CHEM 1151 General Chemistry I <sup>1</sup>	5 cr	BIOL 1011 General Biology I	5 cr
COMP 1120 College Writing	3 cr	CHEM 1152 General Chemistry II <sup>1</sup>	5 cr
MATH 1290 Calculus for the Natural Sciences or MATH 1296 Calculus I <sup>2</sup>	5 cr	STAT or MATH course <sup>3</sup>	3-5 cr
SECOND YEAR			
BIOL 1012 General Biology II	5 cr	BIOL 2801 Ecology	3 cr
CHEM 2541 Organic Chemistry I	3 cr	BIOL elective <sup>4</sup>	3-4 cr
CHEM 2543 Organic Chemistry I laboratory	1 cr	CHEM 2542 Organic Chemistry II	3 cr
Liberal Education Course or Minor Field Course	3-6 cr	CHEM 2544 Organic Chemistry II laboratory	1 cr
		Liberal Education Course or Minor Field Course	3-6 cr
THIRD YEAR			
BIOL 2101 Cell Biology	3 cr	PHYS 1002 Introduction to Physics II <sup>6</sup>	5 cr
BIOL 2201 Genetics	3 cr	COMP 3150 Advanced Writing: Science	3 cr
BIOL 2XXX Laboratory Course <sup>5</sup>	2 cr	BIOL elective <sup>4</sup>	3-4 cr
PHYS 1001 Introduction to Physics I <sup>6</sup>	5 cr	Liberal Education Course or Minor Field Course	3-6 cr
Liberal Education Course or Minor Field Course	3 cr		
FOURTH YEAR			
BIOL 3997 Seminar I	0.5 cr	BIOL 3998 Biology Seminar II	0.5 cr
BIOL 4802 Evolution	3 cr	BIOL elective <sup>4</sup>	3-4 cr
BIOL elective <sup>4</sup>	3-4 cr	BIOL elective <sup>4</sup>	3-4 cr
BIOL elective <sup>4</sup>	3-4 cr	Liberal Education Course or Minor Field Course	4-6 cr
Liberal Education Course or Minor Field Course	7-9 cr	Biology Department Exit Interview	

**PLAN B**

PLAN B			
FIRST YEAR			
FALL SEMESTER		SPRING SEMESTER	
BIOL 1011 General Biology I	5 cr	BIOL 1012 General Biology II	5 cr
CHEM 1151 General Chemistry I <sup>1</sup>	5 cr	CHEM 1152 General Chemistry II <sup>1</sup>	5 cr
COMP 1120 College Writing	3 cr	MATH 1290 Calculus for the Natural Sciences <sup>2</sup> or MATH 1296 Calculus I	5 cr
SECOND YEAR			
BIOL 2801 Ecology	3 cr	BIOL 2201 Genetics	3 cr
CHEM 2541 Organic Chemistry I	3 cr	BIOL 2XXX Laboratory Course <sup>5</sup>	2 cr
CHEM 2543 Organic Chemistry I laboratory	1 cr	CHEM 2542 Organic Chemistry II	3 cr
STAT or MATH course <sup>3</sup>	3-5 cr	CHEM 2544 Organic Chemistry II laboratory	1 cr
Liberal Education Course or Minor Field Course	3-4cr	Liberal Education Course or Minor Field Course	3-6
THIRD YEAR			
BIOL 2101 Cell Biology	3 cr	BIOL 3997 Seminar I	0.5 cr
BIOL elective <sup>4</sup>	3-4 cr	BIOL elective <sup>4</sup>	3-4 cr
BIOL elective <sup>4</sup>	3-4 cr	BIOL elective <sup>4</sup>	3-4 cr
PHYS 1001 Introduction to Physics I <sup>6</sup>	5 cr	PHYS 1002 Introduction to Physics II <sup>6</sup>	5 cr
Liberal Education Course or Minor Field Course	4-6 cr	Liberal Education Course or Minor Field Course	3-6cr
FOURTH YEAR			
BIOL 3998 Biology Seminar II	0.5 cr	BIOL 4802 Evolution	3 cr
BIOL elective <sup>4</sup>	3-4 cr	BIOL elective <sup>4</sup>	3-4 cr
COMP 3150 Advanced Writing: Science	3 cr	Liberal Education Course or Minor Field Course	7-9 cr
Liberal Education Course or Minor Field Course	4-6 cr	Biology Department Exit Interview	

see footnotes on reverse side

## BIOLOGY, B.S.

The B.S. in biology offers preparation for graduate school and a sound basis for professional training in the biological and health sciences. Biology is an unusually broad field, and students can tailor their programs to fit their own needs and interests. To provide flexibility in pursuing personal interests or career preparation, the student chooses 18 credits of upper division biology electives. The Department of Biology encourages students to develop as active scholars and to participate in undergraduate research.

MAJOR REQUIREMENTS	CREDITS	PREREQUISITES	SEMESTER TO BE COMPLETED	GRADE
<b>Biology Core Requirements</b>				
BIOL 1011 General Biology I	5	1 yr of high school or 1 semester of college chemistry		
BIOL 1012 General Biology II	5	BIOL 1011		
BIOL 2101 Cell Biology	3	BIOL 1012; CHEM 1152, CHEM 2541		
BIOL 2201 Genetics	3	BIOL 1012		
BIOL 2801 Ecology	3	BIOL 1012		
BIOL 2802 Ecology lab	2	BIOL 2801 (concurrent registration OK)		
or BIOL 2102 Cell lab	2	BIOL 2101 (concurrent registration OK)		
or BIOL 2202 Genetics lab	2	BIOL 2201 (concurrent registration OK)		
BIOL 3997 Seminar I	0.5	60 credits		
BIOL 3998 Seminar II	0.5	BIOL 3997		
BIOL 4802 Evolution	3	BIOL 1012, 2201		
BIOL elective <sup>4</sup>	3-4			
BIOL elective <sup>4</sup>	3-4			
BIOL elective <sup>4</sup>	3-4			
BIOL elective <sup>4</sup>	3-4			
BIOL elective <sup>4</sup>	3-4			
Biology Department Exit Interview	0			
<b>Chemistry Requirements</b>				
CHEM 1151 General Chemistry I <sup>1</sup>	5	1 year HS chemistry; HS algebra		
CHEM 1152 General Chemistry II <sup>1</sup>	5	CHEM 1151		
CHEM 2541 Organic Chemistry I	3	CHEM 1152 or 1162		
CHEM 2543 Organic Chemistry I laboratory	1	CHEM 2541 - concurrent registration OK		
CHEM 2542 Organic Chemistry II	3	CHEM 2541		
CHEM 2544 Organic Chemistry II laboratory	1	CHEM 2542 - concurrent registration OK		
<b>Mathematics Requirements</b>				
MATH 1290 Calculus for the Natural Sciences <sup>2</sup>	5	Math placement or Math 1250 with a grade of 'C-' or better		
STAT 2411 Introduction to Statistics <sup>3</sup>	4	MATH 1250 or 1160		
or STAT 3611 Probability & Statistics	3	MATH 1290, 1296 or 1596		
or MATH 1297 Calculus II <sup>3</sup>	5	MATH 1290, 1296 or 1596 with a grade of 'C-' or better		
<b>Physics Requirements</b>				
PHYS 1001 Introduction to Physics I <sup>5</sup>	5	Algebra and Trigonometry		
PHYS 1002 Introduction to Physics II <sup>5</sup>	5	Phys 1001		
<b>Composition Requirements</b>				
COMP 1120 College Writing	3			
COMP 3150 Advanced Writing: Science	3	Comp 1120; 60 credits		

<sup>^</sup>First math course is determined by ACT math score. This schedule presupposes placement into Calculus I - MATH 1290, 1296, or 1596.

<sup>1</sup>CHEM 1161/1162 Honors General Chemistry I and II may substitute for CHEM 1151/1152

<sup>2</sup>MATH 1296 Calculus I or MATH 1596 Honors Calculus I may be substituted for MATH 1290.

<sup>3</sup> STAT 2411 or STAT 3611 or MATH 1297 Calculus II may be used for additional math requirement

<sup>4</sup>Students must complete 18 credits of biology electives 2XXX level or higher. Electives must include at least two lab courses or two courses with lab components. At least one course must be chosen from BIOL 3601, BIOL 3701, or BIOL 4501. BIOL 3993 may be applied to the major for a maximum of 2 cr. SSP 3002 for Supplemental Instruction (SI) in Biology may be substituted for BIOL 3993 only by prior departmental approval.

Max of two of the following may be used: MDBC 5501, MICB 5545, MICB 5555, PHSL 5601, PHSL 5602, PHSL 5701.

<sup>5</sup>Take either BIOL 2802 Ecology Laboratory, BIOL 2102 Cell Biology Laboratory or BIOL 2202 Genetics Laboratory for Laboratory Course requirement

<sup>6</sup>PHYS 1001/1002 may be replaced by PHYS 2011/2012 that requires the completion of MATH 1297 Calculus II.

NOTE: In addition to the above requirements, students must complete the liberal education program and a minor (or a second major) to earn a B.S. degree. The Cell and Molecular Biology major may not be used to satisfy this requirement.

Department of Biology ♦ James I. Swenson Science Building 207

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