

# Bachelor of Science in Biology

Biological Sciences Emphasis

2015 - 2016



## GENERAL EDUCATION & INSTITUTIONAL REQUIREMENTS

	Requirement	Course	CR	Prerequisites & Notes	Grade	Semester
<input type="checkbox"/>	Computer Literacy	CIS 1200 <i>or</i> CIS 1201 <i>or</i> (CS 1400 and CS 1410)	0-6			
<input type="checkbox"/>	English	ENGL 1010 <i>or</i> ENGL 1010A <i>or</i> ENGL 1010D	0-4	English and Reading plcmnt scores; pre/corequisite LIB 1010		
<input type="checkbox"/>	English	ENGL 2010 <i>or</i> ENGL 2010A	3	ENGL 1010/A/D (C or higher) or ACT $\geq$ 28; pre/corequisite LIB 1010		
<input type="checkbox"/>	Information Literacy	LIB 1000 <i>or</i> LIB 1010	0-1	English placement score for class		
<input type="checkbox"/>	Mathematics	<i>recommended: MATH 1210</i>	3-5	Math placement score or MATH prerequisite		
<input type="checkbox"/>	American Institutions		3-6	Reading placement score		
<input type="checkbox"/>	Life Sciences	<i>recommended: BIOL 1610</i>	3-10			
<input type="checkbox"/>	Physical Sciences	<i>recommended: CHEM 1210</i>	3-5			
<input type="checkbox"/>	Laboratory Science	<i>recommended: BIOL 1615</i>	0-1			
<input type="checkbox"/>	Fine Arts		3			
<input type="checkbox"/>	Literature / Humanities		3			
<input type="checkbox"/>	Social & Behavioral Sciences		3			
<input type="checkbox"/>	Exploration	<i>recommended: PHYS 2010</i>	3-5	3-5 credits, prefix not used in other GE		
<input type="checkbox"/>	Global & Cultural Perspectives		0-3	- Complete two with different prefixes		
<input type="checkbox"/>	Global & Cultural Perspectives		0-3	- Can share credit with other GE		

### OR

Associate of Arts or Associate of Science degree Date: USHE? Y / N

## BIOLOGY CORE REQUIREMENTS

18 credits

<input type="checkbox"/>	BIOL 1610/15 <i>or</i>	Principles of Biology I / Lab <i>or</i>	4/1	GE: Life Sciences; GE: Laboratory Science		
<input type="checkbox"/>	BIOL 1620/25 <i>or</i>	Principles of Biology II / Lab <i>or</i>	4/1	BIOL 1610/15 or BIOL 1610A/15A (both $\geq$ C)		
<input type="checkbox"/>	BIOL 3010	Evolution	3	BIOL 1620/25 or BIOL 1620A/25A (both $\geq$ C)		
<input type="checkbox"/>	BIOL 3030	Molecular Genetics	4	BIOL 1620/25 or BIOL 1620A/25A (both $\geq$ C)		

## MATHEMATICS & PHYSICAL SCIENCE REQUIREMENTS

35 credits

<input type="checkbox"/>	CHEM 1210/15	Principles of Chemistry I / Lab	4/1	MATH 1050 (grade $\geq$ C) or plcmnt score		
<input type="checkbox"/>	CHEM 1220/25	Principles of Chemistry II / Lab	4/1	CHEM 1210/15 (grade $\geq$ C)		
<input type="checkbox"/>	CHEM 2310/15	Organic Chemistry I / Lab	4/1	CHEM 1220/25 (Grade C or higher)		
<input type="checkbox"/>	CHEM 2320/25	Organic Chemistry II / Lab	4/1	CHEM 2310/15 (Grade C or higher)		
<input type="checkbox"/>	MATH 1210	Calculus I	5	See Catalog for prereq; GE: Math		

Complete *one (1)* of the following series of courses:

<input type="checkbox"/>	PHYS 2010/15 <i>and</i> PHYS 2020/25	College Physics I / Lab <i>and</i> College Physics II / Lab	4/1 4/1	MATH 1060 <i>or</i> MATH 1065 PHYS 2010		
<i>Or</i>						
<input type="checkbox"/>	PHYS 2210/15 <i>and</i> PHYS 2220/25	Physics/Sci Engineers I / Lab <i>and</i> Physics/Sci Engineers II / Lab	4/1 4/1	MATH 1210 <i>or</i> MATH 1220 MATH 1220 <i>and</i> PHYS 2210		

## ADDITIONAL BIOLOGY REQUIREMENTS

18-19 credits

<input type="checkbox"/>	BIOL 3040/45	General Ecology / Lab	3/1	BIOL 1620/25 <i>or</i> BIOL 1620A/25A (both $\geq$ C)		
<input type="checkbox"/>	BIOL 3150/55	Biostatistics and the Sci Method / Lab	2/1	BIOL 3010, 3030, 3040; MATH 1050 (all $\geq$ C)		

Complete *one (1)* of the following sets of courses:

<input type="checkbox"/>	BIOL 3450/55	General Microbiology / Lab	3/1	BIOL 3010, 3030; CHEM 2310/15 (all $\geq$ C)		
<input type="checkbox"/>	BIOL 3550/55	Eukaryotic Cell Biology / Lab				

ADDITIONAL BIOLOGY REQUIREMENTS continued						
	Course Number	Description	CR	Prerequisites & Notes	Grade	Semester
Complete <i>one (1)</i> of the following sets of courses:						
<input type="checkbox"/>	BIOL 4500/05	Comp Vertebrate Physiology / Lab	3/1	BIOL 3010, 3030; CHEM 1220 (all ≥C)		
	BIOL 4600/05	Plant Physiology / Lab				
Complete <i>one (1)</i> of the following sets of courses:						
<input type="checkbox"/>	BIOL 3200/05	Invertebrate Zoology / Lab	3/1	BIOL 3010, BIOL 3030 (all ≥C)		
	BIOL 4230/35	General Parasitology / Lab	3/1	BIOL 3010, BIOL 3030 (all ≥C)		
	BIOL 4240	Virology	4	BIOL 3450/55 <i>or</i> BIOL 3550/55 (all ≥C)		
	BIOL 4260/65	Herpetology / Lab	2/1	BIOL 3150/55 (both C or higher)		
	BIOL 4270/75	Ichthyology / Lab	2/1	BIOL 3150/55 (both C or higher)		
	BIOL 4280	Marine Biology	3	BIOL 3010, BIOL 3030, BIOL 3040/45 (all ≥C)		
	BIOL 4350/55	Animal Behavior / Lab	3/1	BIOL 3010, BIOL 3030, BIOL 3040/45 (all ≥C)		
	BIOL 4380/85	Ornithology / Lab	3	BIOL 3010, BIOL 3030, BIOL 3040/45 (all ≥C)		
	BIOL 4411/15	Mammalogy / Lab	4	BIOL 3010, BIOL 3030, BIOL 3040/45 (all ≥C)		
	BIOL 4440/45	General Entomology / Lab	4	BIOL 3150/55 (both C or higher)		
Complete <i>one (1)</i> of the following seminar courses:						
<input type="checkbox"/>	BIOL 4910	Senior Seminar I	1	ENGL 2010 or ENGL 2010A, <i>and</i> Advanced Standing		
	BIOL 4920	Senior Seminar II				
<b>BIOLOGY ELECTIVES</b>					<b>12 credits</b>	
Complete <i>12 credits</i> from the following or from any upper-division BIOL course listed above not already used to fulfill a requirement:						
<input type="checkbox"/>	BIOL 3100	Bioethics	3	BIOL 3010, BIOL 3030, BIOL 3040 (all ≥C)		
<input type="checkbox"/>	BIOL 3110	Scientific Writing	2	BIOL 3010, BIOL 3030 (all ≥C); & ENGL 2010/A (can be concurrent)		
<input type="checkbox"/>	BIOL 3140/45	Comp. Vertebrate Anatomy / Lab	3/1	BIOL 3010, BIOL 3030 (all ≥C)		
<input type="checkbox"/>	BIOL 3250	Cancer Biology	2	BIOL 3010, BIOL 3030 (all ≥C)		
<input type="checkbox"/>	BIOL 3340/45	Plant Anatomy / Lab	3/1	BIOL 1620/25/A and BIOL 2400/05		
<input type="checkbox"/>	BIOL 3360	Developmental Biology	3	BIOL 3010, BIOL 3030, BIOL 3040 (all ≥C)		
<input type="checkbox"/>	BIOL 3460	Biology of Infectious Disease	3	BIOL 3010, BIOL 3030, BIOL 3040 (all ≥C)		
<input type="checkbox"/>	BIOL 3470	Introduction to Immunology	3	BIOL 3010, BIOL 3030, BIOL 3040 (all ≥C)		
<input type="checkbox"/>	BIOL 4190/95	Mammalian Histology / Lab	3/1	BIOL 3010, BIOL 3030 (all ≥C)		
<input type="checkbox"/>	BIOL 4200/4205	Plant Taxonomy / Lab	2/2	BIOL 1610A, 1615/A, and BIOL 2400/05		
<input type="checkbox"/>	BIOL 4300/05	Molecular Biology / Lab	3/1	BIOL 3450/55 <i>or</i> BIOL 3550/55 (both ≥C)		
<input type="checkbox"/>	BIOL 4350/55	Animal Behavior / Lab	3/1	BIOL 3010, BIOL 3030, BIOL 3040/45 (all ≥C)		
<input type="checkbox"/>	BIOL 4400	Pathophysiology	3	BIOL 2320/25 and BIOL 2420/25 (all ≥C)		
<input type="checkbox"/>	BIOL 4460/65	Plant Ecology / Lab	3	BIOL 3150/55 (C or higher)		
<input type="checkbox"/>	BIOL 4520/4525	Psychobiology/Lab	3/1	See Catalog		
<input type="checkbox"/>	BIOL 4810R or 4820R or 4830R	Independent Research	1-4	See Catalog		
<input type="checkbox"/>	BIOL 4930R	Senior Thesis	1-4	Senior, inst perm, BIOL 3110 (or concurrent)		
<input type="checkbox"/>	CHEM 3510/3515	Biochemistry I / Lab	3/1	BIOL 1610/A, BIOL 01615A, CHEM 2320/25		
<input type="checkbox"/>	CHEM 3520/3525	Biochemistry II / Lab	3/1	CHEM 3510/15 (C or higher)		
<b>GRADUATION REQUIREMENTS</b>						
Subtract duplicated and developmental (0990 and below) credits. Minimum 120 college-level credits (1000 and above). At least 40 upper-division credits (3000 and above). At least 30 upper-division credits at DSU for institutional residency. Cumulative GPA 2.0 or higher. Grade C or higher required (not C-) in each Program Requirement, Core Discipline Requirement, and Biology Elective Requirement course. Maximum 6 total credits of BIOL 4810R, BIOL 4820R, BIOL 4830R, and/or BIOL 4930R may be used toward Biology requirements.						