

**South Dakota Board of Regents**

**EXISTING PROGRAM: SUBSTANTIVE PROGRAM MODIFICATION**

This form is used to request substantive changes in already existing programs (majors, minors, specializations).

**1. INSTITUTION:** South Dakota State University

**2. CURRENT PROGRAM NAME:** Biology – Pre-Professional Specialization

**3. THIS PROPOSAL DEALS WITH A CHANGE IN:**

*Distribution of Credits*

<input checked="" type="checkbox"/> total credits required within the discipline	<input type="checkbox"/> Program name
<input type="checkbox"/> total credits of supportive course work	<input checked="" type="checkbox"/> Existing specialization
<input type="checkbox"/> total credits of elective course work	<input type="checkbox"/> Addition of specialization
<input type="checkbox"/> total credits required for program	<input type="checkbox"/> Other (explain)

**4. LEVEL:**

Certificate  
 Associate Degree  
 Bachelor's Degree  
 Master's Degree  
 Doctoral Degree

**5. CATEGORY:**

Minor  
 Major  
 Specialization

**6. EFFECTIVE DATE OF CHANGE:** Summer 2012

**7. IF A NAME CHANGE IS PROPOSED, THIS WILL OCCUR:**

on the effective date for all students (BECAUSE THIS IS A NEW MAJOR)  
 on the effective date for students new to the program  
(enrolled students will graduate from existing program)

## 8. PRIMARY ASPECTS OF THE MODIFICATION:

Existing Curriculum				Proposed Curriculum (Highlight Changes)			
Current Program Name: Biology-Pre-Professional Specialization				Proposed Program Name: Biology-Pre-Professional Specialization			
A. System General Education Requirements		33-35		A. System General Education Requirements		33-35	
ENGL	101	Composition I (SGR #1)	3	ENGL	101	Composition I (SGR #1)	3
ENGL	201	Composition II (SGR #1)	3	ENGL	201	Composition II (SGR #1)	3
SPCM	101	Fundamentals of Speech (SGR #2)	3	SPCM	101	Fundamentals of Speech (SGR #2)	3
(SGR #3) Student Choice			6	(SGR #3) Student Choice			6
(SGR #4) Student Choice			6	(SGR #4) Student Choice			6
MATH 102 and MATH 120 (SGR #5)		4-6		MATH 102 and MATH 120 (SGR #5)		4-6	
Or MATH 115				Or MATH 115			
Or MATH 121-121L				Or MATH 121-121L			
Or MATH 123				Or MATH 123			
Or MATH 123L				Or MATH 123L			
BIOL	151-151L	General Biology I and Lab (SGR #6)	4	BIOL	151-151L	General Biology I and Lab (SGR #6)	4
BIOL	153-153L	General Biology II and Lab (SGR #6)	4	BIOL	153-153L	General Biology II and Lab (SGR #6)	4
B. Institutional General Education Requirements		8-9		B. Institutional General Education Requirements		5	
<b>Goal #1 Land and Natural Resources (choose 1)</b>				<b>Goal #1 First Year Experience</b>			
Biol 311			3	Biology 109/109L First Year Seminar			2
Biol 383			4				
ENVM 275			3				
<b>Goal #2 Personal Wellness</b>		2		<b>Goal #2 Cultural Awareness and Social and Environmental Responsibility</b> Choose from list		3	
Goal #3 Social Responsibility/Cultural & Aesthetic Awareness		3					
<b>C. Globalization Requirement</b>				<b>C. Globalization Requirement</b>			
Select course from list on p. 46 of catalog (may be course used to fulfill other goal)			(0)	Select course from list on p. 46 of catalog (may be course used to fulfill other goal)			(0)
<b>D. Major Requirements</b>				<b>D. Major Requirements</b>			
<b>Biology and Microbiology</b>				<b>Biology and Microbiology</b>			
Biol 202 Genetics and Organismal Biology			3	Biol 202 Genetics and Organismal Biology			3
Biol 202L Genetics and Organismal Biology			1	Biol 202L Genetics and Organismal Biology			1
Biol 204 Genetics and Cellular Biology			3	Biol 204 Genetics and Cellular Biology			3
Biol 204L Genetics and Cellular Biology			1	Biol 204L Genetics and Cellular Biology			1
Micr 231/231L, General Microbiology & Lab			3	Micr 231/231L, General Microbiology & Lab			3
Biol 290, Seminar			1	Biol 290, Seminar			1
<b>Chemistry</b>				<b>Chemistry</b>			
Chem 112/112L General Chemistry I & Lab			4	Chem 112/112L General Chemistry I & Lab			4
Chem 114/114L, General Chemistry II & Lab			4	Chem 114/114L, General Chemistry II & Lab			4
Chem 326/326L Organic Chemistry I			4	Chem 326/326L Organic Chemistry I			4
Chem 328/328L Organic Chemistry II			4	Chem 328/328L Organic Chemistry II			4
<b>PHYSICS (SELECT A OR B)</b>				<b>PHYSICS (SELECT A OR B)</b>			
a. Phys 111/111L, Introductory Physics I & Lab and Phys 113/113L, Introductory Physics II & Lab			4 or 4	a. Phys 111/111L, Introductory Physics I & Lab and Phys 113/113L, Introductory Physics II & Lab			4 or 4
OR				OR			
b. Phys 101/101L Survey of Physics & lab <sup>9</sup>			4	b. Phys 101/101L Survey of Physics & lab <sup>9</sup>			4
<b>MATHEMATICS (SELECT A OR B)</b>				<b>MATHEMATICS (SELECT A OR B)</b>			
a. Stat 281, Statistical Methods			3 or	a. Stat 281, Statistical Methods			3 or
b. Math 125, Calculus II			4	b. Math 125, Calculus II			4

Advanced Writing Requirement			Advanced Writing Requirement		
Engl 379 Technical Communications		3	Engl 379 Technical Communications		3
Health-related Required Courses			Health-related Required Courses		
Biol 221-221L	Human Anatomy & Lab <sup>1</sup>	4	Biol 221-221L	Human Anatomy & Lab <sup>1</sup>	4
Biol 325-325L	Physiology & Lab <sup>1</sup>	4	Biol 325-325L	Physiology & Lab <sup>1</sup>	4
Micr 439	Med. & Vet.Immunology	3	Micr 439	Med. & Vet. Immunology	3
Health-related Elective Courses. Take at least four (4) courses from the following list.			Health-related Elective Courses. Take at least four (4) courses from the following list.		
			Biol 383	Bioethics	4
Biol/Micr 491, 494, 498	Independent Study, Internship, Research/Scholarship	3-4	Biol 494, 498	Internship, Research/Scholarship <sup>2</sup>	3
Chem 464	Biochemistry I	3	Chem 464	Biochemistry I	3
HSc 445	Epidemiology	3			
Micr 311-311L	Food Micro & Lab	4			
Micr 433	Medical Microbiology	3	Micr 433	Medical Microbiology	3
Micr 424	Medical and Vet. Virology	3	Micr 424	Medical and Vet. Virology	3
			Micro 436	Molecular and Microbial Genetics	4
			Micro 440L	Infectious Disease Lab	3
Nurs 323	Pathophysiology	3			
PE 454	Biomechanics	3	PE 454	Biomechanics <sup>3</sup>	3
Zool 423	Advanced Mammalian Physiology	4	Zool 423	Advanced Mammalian Physiology	4
Zool 467-467L	Parasitology & Lab	3	Biol 467-467L	Parasitology & Lab	3
Zool 483-483L	Developmental Biology & Lab	4	Biol 483-483L	Developmental Biology & Lab	4
Recommended General Electives (If not taken to meet core requirements) to complete the 128 credits required for graduation:			Recommended General Electives (If not taken to meet core requirements) to complete the 120 credits required for graduation:		
Chem 465	Biochemistry II	3			
Chem 466	Biochemistry Lab	1	Chem 466	Biochemistry Lab	2
Hlth 120	Community Health	2	Hlth 120	Community Health	4
Hlth 364-364L	Emergency Med Tech & Lab	4	Hlth 364-364L	Emergency Med Tech & Lab	3
			HSc 445	Epidemiology	3
Math 121 or Math 123 & 125	Survey of Calculus or Calc I & II	5 or 4	Math 121 or Math 123 & 125	Survey of Calculus or Calc I & II	5 or 4
			Nurs 323	Pathophysiology	3
NFS 321	Human Nutrition	3	NFS 321	Human Nutrition	3
Psyc 101 or 102	General Psych. or Intro. to Psych.	3	Psyc 101 or 102	General Psych. or Intro. to Psych.	3

SpCm 201	Interpersonal Communication	3	SpCm 201	Interpersonal Communication	3
Stat 281	Statistical Methods I	3	Stat 281	Statistical Methods I	3
			<sup>2</sup> Any combination of credits can be used to meet this requirement, as long as the total is at least 3 credits. <sup>3</sup> Recommended only for Pre-Chiro, Pre-OT, and Pre-PT programs		

**Total number of hours required for major, minor, or specialization** 23-27

**Total number of hours required for degree** 128

**Total number of hours required for major, minor, or specialization** 23-27

**Total number of hours required for degree** 120

**9. EXPLANATION OF THE CHANGE:**

The Dept. Curriculum committee re-examined the specialization, placing more departmental courses on the Health-related elective list while moving other options to the recommended general electives. Updated prefixes to match crosslisted courses currently available. Also added a previous IGR course to the Health-related elective list. There is no change to the number of credits required for the specialization.

Laurie Stenberg Nichols  
Institutional Authorization (President or Designee)

12/13/11  
Date Submitted