



**SOUTH DAKOTA BOARD OF REGENTS
ACADEMIC AFFAIRS FORMS**

Substantive Program Modification Program

UNIVERSITY:	SDSU
CURRENT PROGRAM TITLE:	Biology (B.S.) [S.BS.BIO] - Secondary Education Specialization [S.BS.BIO-SED]
CIP CODE:	26.0101
UNIVERSITY DEPARTMENT:	Biology & Microbiology
UNIVERSITY DIVISION:	Natural Sciences

University Approval

To the Board of Regents and the Executive Director: I certify that I have read this proposal, that I believe it to be accurate, and that it has been evaluated and approved as provided by university policy.

 Dennis D. Hedge
 Vice President of Academic Affairs or
 President of the University

 5/7/18
 Date

1. This modification addresses a change in:

- | | |
|---|---|
| <input type="checkbox"/> Total credits required within the discipline | <input type="checkbox"/> Total credits of supportive course work |
| <input type="checkbox"/> Total credits of elective course work | <input type="checkbox"/> Total credits required for program |
| <input type="checkbox"/> Program name | <input type="checkbox"/> Existing specialization |
| <input type="checkbox"/> CIP Code | <input checked="" type="checkbox"/> Other: Restructure of College and Department Requirements |

2. Effective date of change: 2018-2019 Academic Year

3. Program Degree Level:

Associate Bachelor's Master's Doctoral

4. Category:

Certificate Specialization Minor Major

5. If a name change is proposed, the change will occur:

- On the effective date for all students
- On the effective date for students new to the program (enrolled students will graduate from existing program)

Proposed new name: _____

6. Primary Aspects of the Modification:

<i>Existing Curriculum</i>				<i>Proposed Curriculum (Highlight Changes)</i>			
Pre	Num	Title	Cr Hrs	Pre	Num	Title	Cr Hrs
System General Education Requirements			33-35	System General Education Requirements			33-35
SGR 1 Written Communication ENGL 101 Composition I (3) ENGL 201 Composition II (3)			6	SGR 1 Written Communication ENGL 101 Composition I (3) ENGL 201 Composition II (3)			6
SGR 2 Oral Communication SPCM 101 Fundamentals of Speech			3	SGR 2 Oral Communication SPCM 101 Fundamentals of Speech			3
SGR 3 Social Sciences/Diversity <i>Biology Major:</i>			6	SGR 3 Social Sciences/Diversity <i>Biology Major:</i>			6

Existing Curriculum

Proposed Curriculum (Highlight Changes)

Student Choice Secondary Education Specialization: PSYC 101 General Psychology (3) OR SOC 100 Introduction to Sociology (3)		Student Choice Secondary Education Specialization: PSYC 101 General Psychology (3) OR SOC 100 Introduction to Sociology (3)	
SGR 4 Arts and Humanities/Diversity	6	SGR 4 Arts and Humanities/Diversity	6
SGR 5 Mathematics MATH 102 College Algebra (3) AND MATH 120 Trigonometry (3) OR MATH 115 Precalculus (5) OR MATH 121-121L Survey of Calculus & Lab (5) OR MATH 123 Calculus I (4)	4-6	SGR 5 Mathematics MATH 102 College Algebra (3) AND MATH 120 Trigonometry (3) OR MATH 115 Precalculus (5) OR MATH 121-121L Survey of Calculus & Lab (5) OR MATH 123 Calculus I (4)	4-6
SGR 6 Natural Sciences BIOL 151-151L General Biology I & Lab (4) AND BIOL 153-153L General Biology II & Lab (4)	8	SGR 6 Natural Sciences BIOL 151-151L General Biology I & Lab (4) AND BIOL 153-153L General Biology II & Lab (4)	8
ABS College Requirements – BS in Biological Sciences	--	Department Requirements	--
<ul style="list-style-type: none"> – 25 semester credits must be upper division (300 and above), with the exception that MATH 125 and 225, Calculus II and III, may be counted as five credits toward the total. – Students who wish to complete a Bachelor of Science in Biological Sciences must complete a minimum of 33 credits from the natural sciences. Refer to departments offering the degree for specific course listings. 		<ul style="list-style-type: none"> – 25 semester credits must be upper division (300 and above), with the exception that MATH 125 and 225, Calculus II and III, may be counted as five credits toward the total. – Students must complete a minimum of 33 credits from the natural sciences. Refer to departments offering the degree for specific course listings. 	
Major Requirements	50-73	Major Requirements	50-73
Major Core	30	Major Core	30
Biology & Microbiology	15	Biology & Microbiology	15
BIOL 119 First Year Seminar	2	BIOL 119 First Year Seminar	2
BIOL 202-202L Genetics and Organismal Biology & Lab	4	BIOL 202-202L Genetics and Organismal Biology & Lab	4
BIOL 204-204L Genetics and Cellular Biology & Lab	4	BIOL 204-204L Genetics and Cellular Biology & Lab	4
BIOL 290 Seminar	1	BIOL 290 Seminar	1
MICR 233-233L Introduction to Microbiology & Lab	4	MICR 233-233L Introduction to Microbiology & Lab	4
Chemistry & Physics	12	Chemistry & Physics	12
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 & Lab	4	CHEM 326-326L Organic Chemistry I & Lab	4
Capstone & Advanced Writing	3	Advanced Writing	3
ENGL 379 Technical Communication (Section: Biology & Microbiology)	3	ENGL 379 Technical Communication (Section: Biology & Microbiology)	3
Biology Major Requirements	37-43	Biology Major Requirements	37-43
Biology & Microbiology	4	Biology & Microbiology	4
BIOL 383 Bioethics	4	BIOL 383 Bioethics	4
Chemistry	4	Chemistry	4
CHEM 328 -328L Organic Chemistry II & Lab	4	CHEM 328 -328L Organic Chemistry II & Lab	4
Physics	4-8	Physics	4-8
PHYS 111-111L Introduction to Physics I & Lab (4) and PHYS 113-113L Introduction to Physics II & Lab (4) or PHYS 101-101L Survey of Physics & Lab (4)	4-8	PHYS 111-111L Introduction to Physics I & Lab (4) and PHYS 113-113L Introduction to Physics II & Lab (4) or PHYS 101-101L Survey of Physics & Lab (4)	4-8

Existing Curriculum

Proposed Curriculum (Highlight Changes)

Mathematics			3-4	Mathematics			3-4
MATH 125 Calculus II (4) or STAT 281 Introduction to Statistics (3)			3-4	MATH 125 Calculus II (4) or STAT 281 Introduction to Statistics (3)			3-4
Capstone & Advanced Writing			2	Capstone & Advanced Writing			2
BIOL	490	Seminar	2	BIOL	490	Seminar	2
General Biology Requirements			20-21	General Biology Requirements			20-21
Biology majors without specializations are required to complete at least 10 additional departmental credits at the 300-400 level (BIOL, BOT, or MICR)			10	Biology majors without specializations are required to complete at least 10 additional departmental credits at the 300-400 level (BIOL, BOT, or MICR)			10
In addition, select one of the following paths BIOL 373 - Evolution (3) BIOL 221-221L - Human Anatomy & Lab (4) BIOL 325-325L - Physiology & Lab (4) or BIOL 373 - Evolution (3) BOT 201-201L - General Botany & Lab * (3) BOT 327-327L - Plant Physiology & Lab (4)			10-11	In addition, select one of the following paths BIOL 373 - Evolution (3) BIOL 221-221L - Human Anatomy & Lab (4) BIOL 325-325L - Physiology & Lab (4) or BIOL 373 - Evolution (3) BOT 201-201L - General Botany & Lab * (3) BOT 327-327L - Plant Physiology & Lab (4)			10-11
Biology Secondary Education Requirements			20-21	Biology Secondary Education Requirements			20-21
Physics			4	Physics			4
PHYS	101-101L	Survey of Physics & Lab	4	PHYS	101-101L	Survey of Physics & Lab	4
Specialization Requirements			16-17	Specialization Requirements			16-17
BOT	201-201L	General Botany & Lab	3	BOT	201-201L	General Botany & Lab	3
BIOL	221-221L	Human Anatomy & Lab	4	BIOL	221-221L	Human Anatomy & Lab	4
BIOL	373	Evolution	3	BIOL	373	Evolution	3
NRM	311	Principles of Ecology	3	NRM	311	Principles of Ecology	3
Take at least <u>one</u> of the following: BIOL 325-325L Physiology & Lab (4) BIOL/PHIL 383 Bioethics (4) CHEM 328-328L Organic Chemistry II & Lab (4) NRM 200-200L Animal Diversity & Lab (4) PHIL/REL 454 Environmental Ethics (3) WL 302 Animal Behavior (3)			3-4	Take at least <u>one</u> of the following: BIOL 325-325L Physiology & Lab (4) BIOL/PHIL 383 Bioethics (4) CHEM 328-328L Organic Chemistry II & Lab (4) NRM 200-200L Animal Diversity & Lab (4) PHIL/REL 454 Environmental Ethics (3) WL 302 Animal Behavior (3)			3-4
Teaching Specialization Requirements <i>Additional required credits of coursework beyond SGRs, Major, and Support Courses</i>			37	Teaching Specialization Requirements <i>Additional required credits of coursework beyond SGRs, Major, and Support Courses</i>			37
AIS	211	South Dakota American Indian Culture and Education	3	AIS	211	South Dakota American Indian Culture and Education	3
EDFN	101	Exploration of Teaching & Learning	1	EDFN	101	Exploration of Teaching & Learning	1
EDFN	351	Teaching & Learning I	1	EDFN	351	Teaching & Learning I	1
EDFN	352-352L	Teaching & Learning II & Lab	5	EDFN	352-352L	Teaching & Learning II & Lab	5
EDFN	453-453L	Teaching & Learning III & Lab	7	EDFN	453-453L	Teaching & Learning III & Lab	7
EDFN	454	Teaching & Learning IV	11	EDFN	454	Teaching & Learning IV	11
EDFN	475	Human Relations	3	EDFN	475	Human Relations	3
SEED	413	7-12 Science Methods	3	SEED	413	7-12 Science Methods	3
SEED	450	7-12 Reading and Content Literacy	2	SEED	450	7-12 Reading and Content Literacy	2
SEED	456	Capstone/Action Research	1	SEED	456	Capstone/Action Research	1
Electives			0-20	Electives			0-20
Summary of Credits Biology (B.S.)							
System General Education Requirement			33-35	System General Education Requirement			33-35
ABS College Requirements – BS in Biological Sciences			--	Department Requirements			--
Major Requirements			67-73	Major Requirements			67-73
Electives			12-20	Electives			12-20
Summary of Credits for Biology (B.S.) – Secondary Education Specialization							

*Existing Curriculum**Proposed Curriculum (Highlight Changes)*

System General Education Requirements	33-35	System General Education Requirements	33-35
ABS College Requirements – BS in Biological Sciences	--	Department Requirements	--
Major Requirements	50-51	Major Requirements	50-51
Teaching Specialization Requirements	37	Teaching Specialization Requirements	37
Electives	0	Electives	0
Total hours required for major and specialization	67-88	Total hours required for major specialization	67-88
Total number of hours required for degree	120	Total number of hours required for degree	120

7. Explanation of the Change:

The Department of Biology & Microbiology will move from the College of Agriculture & Biological Sciences to the College of Natural Sciences effective July 1, 2018. The College of Agriculture & Biological Sciences – Bachelor of Science in Biological Science requirements have been realigned as department requirements within the program.