SOUTH DAKOTA BOARD OF REGENTS
ACADEMIC AFFAIRS FORMS

Substantive Program Modification Form

UNIVERSITY:	**SDSU**
CURRENT PROGRAM DEGREE:	**Bachelor of Science (B.S.)**
CURRENT PROGRAM MAJOR/MINOR:	**Biology**
CURRENT SPECIALIZATION:	**Secondary Education Specialization**
CIP CODE:	**26.0101 – Major CIP** **13.1205 – Secondary Education Specialization**
UNIVERSITY DEPARTMENT:	**Biology & Microbiology**
BANNER DEPARTMENT CODE:	**SBIM**
UNIVERSITY COLLEGE:	**College of Natural Sciences**
BANNER COLLEGE CODE:	**3T**

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 — 4/3/2023
Vice President of Academic Affairs or President of the University — Date

1. This modification addresses a change in:

- ☒ Total credits required within the discipline
- ☒ Total credits of supportive course work
- ☒ Total credits of elective course work
- ☐ Total credits required for program
- ☐ Program name
- ☒ Existing specialization
- ☐ CIP Code
- ☐ Other (explain below)
- ☐ Modification requiring Board of Regents approval
  Must have prior approval from Executive Director or designee

2. Effective date of change: 2023-2024 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: _____
Reminder: Name changes may require updating related articulation agreements, site approvals, etc.

6. **Is the program being modified associated with a current articulation agreement?**

Yes ☐ No ☒

   a. **If yes, will the articulation agreement need to be updated with the partner institution following the approve of the program change? Please explain:**

7. **Primary Aspects of the Modification:**

Existing Curriculum				*Proposed Curriculum (Highlight Changes)*			
Pref	Num	Title	Cr Hrs	Pref	Num	Title	Cr Hrs
System General Education Requirement			**32-34**	**System General Education Requirement**			**24-26**
System General Education Requirement – Electives			**12**	**System General Education Requirement – Electives**			**21**
						SGR #1 Elective	3
						SGR #1 Elective	3
						SGR #2 Elective	3
		SGR #3 Elective	3			SGR #3 Elective	3
		SGR #3 Elective	3			SGR #3 Elective	3
		SGR #4 Elective	3			SGR #4 Elective	3
		SGR #4 Elective	3			SGR #4 Elective	3
System General Education Requirement – Required			**20-22**	**System General Education Requirement – Required**			**3-5**
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~~
CMST	101	Fundamentals of Speech (SGR #2)	3	~~CMST~~	~~101~~	~~Fundamentals of Speech (SGR #2)~~	~~3~~
MATH	115	Pre-Calculus or higher Consult advisor as some professional schools require calculus.	3-5	MATH	115	Pre-Calculus or higher Consult advisor as some professional schools require calculus.	3-5
BIOL	151	General Biology I (SGR #6)	4	BIOL	151	General Biology I (SGR #6) (Major Requirement)	--
BIOL	151L	General Biology I Lab (SGR #6)	0	BIOL	151L	General Biology I Lab (SGR #6) (Major Requirement)	--
BIOL	153	General Biology II (SGR #6)	4	BIOL	153	General Biology II (SGR #6) (Major Requirement)	--
BIOL	153L	General Biology II Lab (SGR #6)	0	BIOL	153L	General Biology II Lab (SGR #6) (Major Requirement)	--
Department Requirements			**--**	**Department Requirements**			**--**
– 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.			--	~~– 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			**50-51**	**Major Requirements**			**55-56**
BIOL	119	First Year Seminar	2	BIOL	119	First Year Seminar	2
BIOL	151	General Biology I (SGR #6)	--	BIOL	151	General Biology I (SGR #6)	4
BIOL	151L	General Biology I Lab (SGR #6)	--	BIOL	151L	General Biology I Lab (SGR #6)	0
BIOL	153	General Biology II (SGR #6)	--	BIOL	153	General Biology II (SGR #6)	4
BIOL	153L	General Biology II Lab (SGR #6)	--	BIOL	153L	General Biology II Lab (SGR #6)	0
BIOL	202	Genetics and Organismal Biology	3	BIOL	202	Genetics and Organismal Biology	3
BIOL	202L	Genetics and Organismal Biology Lab	1	BIOL	202L	Genetics and Organismal Biology Lab	1
BIOL	204	Genetics and Cellular Biology	3	BIOL	204	Genetics and Cellular Biology	3
BIOL	204L	Genetics and Cellular Biology Lab	1	BIOL	204L	Genetics and Cellular Biology Lab	1
BIOL	290	Seminar	1	BIOL	290	Seminar	1
CHEM	112	General Chemistry I	3	CHEM	112	General Chemistry I	3
CHEM	112L	General Chemistry I Lab	1	CHEM	112L	General Chemistry I Lab	1
CHEM	114	General Chemistry II	3	CHEM	114	General Chemistry II	3
CHEM	114L	General Chemistry II	1	CHEM	114L	General Chemistry II	1
CHEM	326	Organic Chemistry I	3	CHEM	326	Organic Chemistry I	3
CHEM	326L	Organic Chemistry I Lab	1	CHEM	326L	Organic Chemistry I Lab	1

Existing Curriculum				*Proposed Curriculum (Highlight Changes)*			
Pref	Num	Title	Cr Hrs	Pref	Num	Title	Cr Hrs
PHYS	101	Survey of Physics	4	PHYS	101	Survey of Physics	3
PHYS	101L	Survey of Physics Lab	0	PHYS	101L	Survey of Physics Lab	1
ENGL	379	Technical Communication – Biology & Microbiology	3	~~ENGL~~	~~379~~	~~Technical Communication – Biology & Microbiology~~	~~3~~
MICR	233	Introductory Microbiology	4	MICR	233	Introductory Microbiology	3
MICR	233L	Introductory Microbiology Lab	0	MICR	233L	Introductory Microbiology Lab	1
Biology Secondary Education Specialization Requirements				**Biology Secondary Education Specialization Requirements**			
BOT	201	General Botany	3	BOT	201	General Botany	3
BOT	201L	General Botany Lab	0	BOT	201L	General Botany Lab	0
BIOL	221	Human Anatomy	4	BIOL	221	Human Anatomy	4
BIOL	221L	Human Anatomy Lab	0	BIOL	221L	Human Anatomy Lab	0
BIOL	373	Evolution	3	BIOL	373	Evolution	3
NRM	311	Principles of Ecology	3	NRM	311	Principles of Ecology	3
		Select <u>one</u> of the following: BIOL 326-326L Biomedical Physiology & Lab (3,1) BIOL/PHIL 383 Bioethics (4) CHEM 328-328L Organic Chemistry II & Lab (3,1) NRM 200-200L Animal Diversity & Lab (4,0) PHIL/REL 454 Environmental Ethics (3)	3-4			Select one of the following BIOL 325-325L - Physiology & Lab (4,0) ~~BIOL 326-326L Biomedical Physiology & Lab (3,1)~~ BIOL/PHIL 383 Bioethics (4) CHEM 328-328L Organic Chemistry II & Lab (3,1) ~~NRM 200-200L Animal Diversity & Lab (4,0)~~ PHIL/REL 454 Environmental Ethics (3)	3-4
Teaching Specialization Requirements			**37**	**Teaching Specialization Requirements**			**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 and Learning	1	EDFN	101	Exploration of Teaching and Learning	1
EDFN	340	Adolescent Development in Educational Contexts	3	EDFN	340	Adolescent Development in Educational Contexts	3
EDFN	351	Teaching and Learning I	1	EDFN	351	Teaching and Learning I	1
EDFN	352	Teaching and Learning II	3	EDFN	352	Teaching and Learning II	3
EDFN	352L	Teaching and Learning II Lab	2	EDFN	352L	Teaching and Learning II Lab	2
EDFN	453	Teaching and Learning III	3	EDFN	453	Teaching and Learning III	3
EDFN	453L	Teaching and Learning III Lab	4	EDFN	453L	Teaching and Learning III Lab	4
EDFN	454	Teaching and Learning IV	11	EDFN	454	Teaching and Learning IV	11
SEED	450	Reading and Content Literacy	2	SEED	450	Reading and Content Literacy	2
SEED	456	Capstone/Action Research Credits	1	SEED	456	Capstone/Action Research Credits	1
		Content Methods (Varies by Content Area SEED 413 7-12 Science Methods	3			Content Methods (Varies by Content Area SEED 413 7-12 Science Methods	3
Electives			**0-1**	**Electives**			**1-4**
Summary of Credits Biology (B.S.) – Secondary Education Specialization							
System General Education Requirement			**32-34**	**System General Education Requirement**			**24-26**
Department Requirements			**--**	**Department Requirements**			**--**
Major Requirements			**50-51**	**Major Requirements**			**55-56**
Teaching Specialization Requirements			**37**	**Teaching Specialization Requirements**			**37**
Electives			**18-21**	**Electives**			**1-4**
Total number of hours required for specialization			107-110	Total number of hours required for specialization			95-98
Total number of hours required for degree			120	Total number of hours required for degree			120

8. Explanation of the Change:

The Department of Biology and Microbiology has identified the following changes to the Biology – Secondary Education Specialization:

- Removed a specific course selection from SGR #1 and SGR #2 to allow students more flexibility in meeting their System General Education requirements.
- Replaced BIOL 326-326L Biomedical Physiology & Lab (3, 1 cr.) with BIOL 325-325L Physiology & Lab (3, 1 cr.) due to lack of resources to offer BIOL 326-326L as originally intended. BIOL 326-326L Biomedical Physiology & Lab has not and will not likely be offered in the near term.
- Removed ENGL 379 Technical Communication (Capstone) (3 cr.). Students participate in an action research project and technical communication through the SEED 456 course, and scientific and technical communication is integral to their work in all EDFN and SEED coursework. Additionally, this change allows for additional electives/minor courses to be taken by SEED students.
- Removed the department requirements to complete 25 upper division credits with the exception that five credits of MATH 125 and MATH 225 may be counted toward that total and that students were required to complete a minimum of 33 natural sciences courses. This language is redundant to current program requirements and SDSU and BOR graduation policy requirements. The requirements were carried over when the department transitioned from the College of Agriculture and Biological Sciences to the College of Natural Sciences.