



**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:	Human Biology
CURRENT SPECIALIZATION:	N/A
CIP CODE:	26.0102
UNIVERSITY DEPARTMENT:	Biology & Microbiology
BANNER DEPARTMENT CODE:	SBIM
UNIVERSITY COLLEGE:	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

Vice President of Academic Affairs or
President of the University

4/3/2023

Date

1. This modification addresses a change in:

- | | |
|--|---|
| <input checked="" type="checkbox"/> Total credits required within the discipline | <input checked="" type="checkbox"/> Total credits of supportive course work |
| <input checked="" 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 type="checkbox"/> Other (explain below) |
| <input type="checkbox"/> 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			44-48	Major Requirements			53-58
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	221	Human Anatomy	4	BIOL	221	Human Anatomy	4
BIOL	221L	Human Anatomy Lab	0	BIOL	221L	Human Anatomy Lab	0
BIOL	290	Seminar	1	BIOL	290	Seminar	1
				BIOL	325	Physiology	4
				BIOL	325L	Physiology Lab	0
BIOL	326	Biomedical Physiology	3	BIOL	326	Biomedical Physiology	3
BIOL	326L	Biomedical Physiology Lab	1	BIOL	326L	Biomedical Physiology Lab	1

Existing Curriculum				Proposed Curriculum (Highlight Changes)			
Pref	Num	Title	Cr Hrs	Pref	Num	Title	Cr Hrs
BIOL	383	Bioethics	4	BIOL	383	Bioethics	4
BIOL	490	Seminar	2	BIOL	490	Seminar	2
MICR	233	Introductory Microbiology	4	MICR	233	Introductory Microbiology	3
MICR	233L	Introductory Microbiology Lab	0	MICR	233L	Introductory Microbiology Lab	1
MICR	439	Medical and Veterinary Immunology	3	MICR	439	Medical and Veterinary Immunology	3
		Select at least <u>four</u> courses from the list: BIOL 448 Molecular and Microbial Genetics (4) BIOL 470 Cancer Biology & Lab (4) BIOL 476 Advanced Mammalian Physiology (4) BIOL 483 Developmental Biology (3) BIOL 494 Internship (3) BIOL 498 Undergraduate Research/Scholarship (3) CHEM 464 Biochemistry I (3) EXS 454-454L Biomechanics & Lab (2, 1) MICR 424 Medical & Veterinary Virology (3) MICR 433 Medical Microbiology (3) MICR 440L Infectious Disease Lab (3)	12-16			Select at least <u>five</u> courses from the list: BIOL 448 Molecular and Microbial Genetics (4) BIOL 470 Cancer Biology (4) BIOL 476 Advanced Mammalian Physiology (4) BIOL 483 Developmental Biology (3) BIOL 494 Internship (3) (max of 3 credits) BIOL 498 Undergraduate Research/Scholarship (3) (max of 3 credits) CHEM 448-448L Biophysical Chemistry and Lab (3, 1) CHEM 464 Biochemistry I (3) EXS 454-454L Biomechanics & Lab (2, 1) HLTH 364-364L Emergency Medical Technician and Lab (3, 1) HSC 445 Epidemiology (3) MICR 424 Medical & Veterinary Virology (3) MICR 433 Medical Microbiology (3) MICR 440L Infectious Disease Lab (3) NUTR 422 Advanced Human Nutrition and Metabolism (4) PHA 352 Pathophysiology, Pharmacology & Toxicology I (3)	15-20
Supporting coursework			26	Supporting coursework			23
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
CHEM	328	Organic Chemistry II	3	CHEM	328	Organic Chemistry II	3
CHEM	328L	Organic Chemistry II Lab	1	CHEM	328L	Organic Chemistry II Lab	1
ENGL	379	Technical Communication (Section: <i>Biology & Microbiology</i>)	3	ENGL	379	Technical Communication (Section: <i>Biology & Microbiology</i>)	3
PHYS	Electives	Consult adviser as many professional schools require PHYS 111/L and 113/L	4	PHYS	Electives	Consult adviser as many professional schools require PHYS 111-111L and 113-111L	4
STAT	281	Introduction to Statistics	3	STAT	281	Introduction to Statistics	3
Electives			12-18	Electives			13-20
Summary of Credits				Human Biology (B.S.)			
System General Education Requirement			32-34	System General Education Requirement			24-26
Department Requirements			--	Department Requirements			--
Major Requirements			44-48	Major Requirements			53-58
Supporting Coursework			26	Supporting Coursework			23
Electives			12-18	Electives			13-20
Total number of hours required for major			90-96	Total number of hours required for major			79-86
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 Human Biology major:

- 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 BIOL 490 Seminar (2 cr.) & ENGL 379 Technical Communication (Capstone) (3 cr.) and replaced with 1 additional upper division elective from the listed courses. Through advising students will be strongly encouraged to engage in research and internship (BIOL 498 & BIOL 494) to gain research, hands on experiences, and science communication skills.
- Added 5 elective course options pertinent to the learning outcomes and career goals highly sought out by Human Biology students and the professional schools and industry they will pursue post-graduation.
- 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.