



SOUTH DAKOTA BOARD OF REGENTS
ACADEMIC AFFAIRS FORMS
Substantive Program Modification Form

UNIVERSITY:	USD
CURRENT PROGRAM TITLE:	Chemistry, B.S. with Chemistry Coordinate specialization [UBS.CHM-CRD]
CIP CODE:	40.0501
UNIVERSITY DEPARTMENT:	Chemistry
BANNER DEPARTMENT CODE:	UCHM
UNIVERSITY DIVISION:	Arts & Sciences
BANNER DIVISION CODE:	2A

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.

Elizabeth M. Freeburg

11/9/2020

Vice President of Academic Affairs or
 President of the University

Date

1. This modification addresses a change in (place an "X" in the appropriate box):

- | | |
|---|---|
| <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 checked="" 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 (explain below)
Revised course options |

2. Effective date of change: 1/11/2021

3. Program Degree Level (place an "X" in the appropriate box):

Associate Bachelor's Master's Doctoral

4. Category (place an "X" in the appropriate box):

Certificate Specialization Minor Major

5. If a name change is proposed, the change will occur (place an "X" in the appropriate box):

- 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. Primary Aspects of the Modification (add lines or adjust cell size as needed):

Existing Curriculum

Proposed Curriculum (highlight changes)

Prof.	Num.	Title	Cr. Hrs.	Prof.	Num.	Title	Cr. Hrs.
Chemistry (B.S.) Chemistry Coordinate Specialization				Chemistry (B.S.) Chemistry Coordinate Specialization			
Departmental Requirements				Departmental Requirements			
Choose one of the following Chemistry sequences:				Choose one of the following Chemistry sequences:			
CHEM	112/L	General Chemistry I /Lab [SGR #6]	3/1	CHEM	112/L	General Chemistry I /Lab [SGR #6]	3/1
CHEM	114/L	General Chemistry II/Lab [SGR #6]	3/1	CHEM	114/L	General Chemistry II/Lab [SGR #6]	3/1
OR				OR			
CHEM	112/L	General Chemistry I /Lab [SGR #6]	3/1	CHEM	112/L	General Chemistry I /Lab [SGR #6]	3/1
CHEM	116/L	Honors Principles of Chemistry/Lab [SGR #6] *	3/1	CHEM	116/L	Honors Principles of Chemistry/Lab [SGR #6] *	3/1
Choose one of the following:				Choose one of the following:			
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	328L	Organic Chemistry II Lab	1
OR				OR			
CHEM	310	Fundamental Organic Chemistry	4	CHEM	310	Fundamental Organic Chemistry	4
CHEM	310L	Fundamental Organic Chemistry Lab	1	CHEM	310L	Fundamental Organic Chemistry Lab	1
CHEM	330	Structure and Function of Biomolecules	3	CHEM	330	Structure and Function of Biomolecules	3
CHEM	332	Analytical Chemistry	3	CHEM	332	Analytical Chemistry	3
CHEM	332L	Analytical Chemistry Lab	1	CHEM	332L	Analytical Chemistry Lab	1
CHEM	442	Physical Chemistry I	3	CHEM	442	Physical Chemistry I	3
CHEM	472	Chemical Literature Seminar I	2	CHEM	472	Chemical Literature Seminar I	2
CHEM	474	Chemical Literature Seminar II	1	CHEM	474	Chemical Literature Seminar II	1
Choose one of the following:				Choose one of the following:			
CHEM	328	Organic Chemistry II	3	Reconfigured into optional courses above, courses remain as optional electives in the list below as well.			
CHEM	328L	Organic Chemistry II Lab	1				
OR							
CHEM	330	Structure and Function of Biomolecules	3	Choose two of the following (not already selected above):			
Choose two of the following (not already selected above):				Choose two of the following (not already selected above):			
CHEM	328/L	Organic Chemistry II	3/1	CHEM	328/L	Organic Chemistry II	3/1
CHEM	330	Structure and Function of Biomolecules	3	CHEM	330	Structure and Function of Biomolecules	3
CHEM	434/L	Instrumental Analysis	3/1	CHEM	434/L	Instrumental Analysis	3
CHEM	444	Physical Chemistry II	3	CHEM	444	Physical Chemistry II	3
CHEM	442L	Physical Chemistry I Lab	1	CHEM	442L	Physical Chemistry I Lab	1
CHEM	452	Inorganic Chemistry	3	CHEM	452	Inorganic Chemistry	3
CHEM	452L	Inorganic Chemistry Lab	1	CHEM	452L	Inorganic Chemistry Lab	1
Subtotal			33-34	Subtotal			33-34
Non-Departmental Requirements				Non-Departmental Requirements			
Non-Departmental requirements may also be applied toward a minor or second major.				Non-Departmental requirements may also be applied toward a minor or second major.			
MATH	123	Calculus I [SGR #5]	4	MATH	123	Calculus I [SGR #5]	5
MATH	123L	Calculus I Lab	1				
MATH	125	Calculus II	4	MATH	125	Calculus II	5
MATH	125L	Calculus II Lab	1				
PHYS	211/L	University Physics I/Lab [SGR #6]	4/1	PHYS	211/L	University Physics I/Lab [SGR #6]	4/1
PHYS	213/L	University Physics II/Lab [SGR #6]	4/1	PHYS	213/L	University Physics II/Lab [SGR #6]	4/1
Subtotal			20	Subtotal			20
Total Hours Required			54-55	Total Hours Required			53-54

7. Explanation of the Change:

Chemistry desires to include the CHEM 310/330 Organic Chemistry sequence (taken by most Medical Biology majors) as an option for the coordinate major. Either option provides a year of organic chemistry (with the same number of credits), and students taking either sequence can choose to become a chemistry major or add a double major.

For the ACS major, this does not apply since CHEM 326/L, CHEM 328/L, and CHEM 330 are all required courses in this major.

Students can minor in chemistry by taking CHEM 112/114/116, CHEM 326/L & CHEM 328/L or CHEM 310/L & CHEM 330, plus one more chemistry course (typically CHEM 332 Analytical Chemistry or CHEM 482 Environmental Chemistry). No change to the chemistry minor is necessary, since a total of 18 CHEM credits is all that is required for the minor.

Change in credit hours is correcting from 54-55 to 53-54.