



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

**Substantive Program Modification Form**

<b>UNIVERSITY:</b>	<b>SDSU</b>
<b>CURRENT PROGRAM DEGREE:</b>	<b>B.S.</b>
<b>CURRENT PROGRAM MAJOR/MINOR:</b>	<b>Chemistry Education</b>
<b>CURRENT SPECIALIZATION:</b>	<b>N/A</b>
<b>CIP CODE:</b>	<b>13.1323</b>
<b>UNIVERSITY DEPARTMENT:</b>	<b>Department of Chemistry, Biochemistry, and Physics</b>
<b>BANNER DEPARTMENT CODE:</b>	<b>SCBP</b>
<b>UNIVERSITY COLLEGE:</b>	<b>College of Natural Sciences</b>
<b>BANNER COLLEGE CODE:</b>	<b>3T</b>

**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

2/13/2025

Date

**1. This modification addresses a change in:**

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Total credits required within the discipline | <input 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 checked="" type="checkbox"/> Other: Academic Requirements |
| <input type="checkbox"/> Modification requiring Board of Regents approval        |  |

*Must have prior approval from Executive Director or designee*

**2. Effective date of change: 2025-2026 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. 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: N/A

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

*Existing Curriculum*

*Proposed Curriculum (highlight changes)*

Prof.	Num.	Title	Cr. Hrs	Prof.	Num.	Title	Cr. Hrs.
<b>Systems General Education Requirements</b>			<b>22</b>	<b>Systems General Education Requirements</b>			<b>22</b>
<b>Systems General Education Requirements - Electives</b>			<b>18</b>	<b>Systems General Education Requirements - Electives</b>			<b>18</b>
		SGR 1 – Written Communication	3			SGR 1 – Written Communication	3
		SGR 1 – Written Communication	3			SGR 1 – Written Communication	3
		SGR 2 – Oral Communication	3			SGR 2 – Oral Communication	3
		SGR 3 – Social Sciences	3			SGR 3 – Social Sciences	3
		SGR 4 – Arts and Humanities	3			SGR 4 – Arts and Humanities	3
		SGR 4 – Arts and Humanities	3			SGR 4 – Arts and Humanities	3
<b>System General Education Requirements - Required</b>			<b>4</b>	<b>System General Education Requirements - Required</b>			<b>4</b>
AIS	211	South Dakota American Indian Culture and Education (SGR #3) (Major Requirement)	--	AIS	211	South Dakota American Indian Culture and Education (SGR #3) (Major Requirement)	--
MATH	123	Calculus (SGR #5)	4	MATH	123	Calculus (SGR #5)	4
CHEM	112	General Chemistry I (SGR #6) (Major Requirement) (3)	--	CHEM	112	General Chemistry I (SGR #6) (Major Requirement) (3)	--
CHEM	112L	General Chemistry I Lab (SGR #6) (Major Requirement) (3)	--	CHEM	112L	General Chemistry I Lab (SGR #6) (Major Requirement) (3)	--
CHEM	114	General Chemistry II (SGR #6) (Major Requirement) (1)	--	CHEM	114	General Chemistry II (SGR #6) (Major Requirement) (1)	--
CHEM	114L	General Chemistry II Lab (SGR #6) (Major Requirement) (1)	--	CHEM	114L	General Chemistry II Lab (SGR #6) (Major Requirement) (1)	--
<b>Major Requirements</b>			<b>96</b>	<b>Major Requirements</b>			<b>98</b>
AIS	211	South Dakota American Indian Culture and Education (SGR 3)	3	AIS	211	South Dakota American Indian Culture and Education (SGR 3)	3
BIOL	151	General Biology I (SGR #6)	3	BIOL	151	General Biology I (SGR #6)	3
BIOL	151L	General Biology I Lab (SGR #6)	1	BIOL	151L	General Biology I Lab (SGR #6)	1
BIOL	153	General Biology II (SGR #6)	3	BIOL	153	General Biology II (SGR #6)	3
BIOL	153L	General Biology II Lab (SGR #6)	1	BIOL	153L	General Biology II Lab (SGR #6)	1
CHEM	112	General Chemistry I (SGR #6)	3	CHEM	112	General Chemistry I (SGR #6)	3
CHEM	112L	General Chemistry I Lab (SGR #6)	1	CHEM	112L	General Chemistry I Lab (SGR #6)	1
CHEM	114	General Chemistry II (SGR #6)	3	CHEM	114	General Chemistry II (SGR #6)	3
CHEM	114L	General Chemistry II Lab (SGR #6)	1	CHEM	114L	General Chemistry II Lab (SGR #6)	1
CHEM	119	First Year Seminar	1	CHEM	119	First Year Seminar	1
CHEM	180	Introduction to Laboratory Safety	1	CHEM	180	Introduction to Laboratory Safety	1
CHEM	237	Introduction to Research	1	CHEM	237	Introduction to Research	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	328	Organic Chemistry II Lab	1
CHEM	332	Analytical Chemistry	3	CHEM	332	Analytical Chemistry	3
CHEM	332L	Analytical Chemistry Lab	1	CHEM	332L	Analytical Chemistry Lab	1
CHEM	343	Fundamentals of Chemical Thermodynamics	2	CHEM	343	Fundamentals of Chemical Thermodynamics	2
CHEM	452	Inorganic Chemistry	3	CHEM	452	Inorganic Chemistry	3
CHEM	452L	Inorganic Chemistry Lab	1	CHEM	452L	Inorganic Chemistry Lab	1
CHEM	464	Biochemistry I	3	CHEM	464	Biochemistry I	3
CHEM	466	Laboratory Methods – Biochemistry	1	CHEM	466	Laboratory Methods – Biochemistry	1
CHEM	482	Environmental Chemistry (3)	3	CHEM	482	Environmental Chemistry (3)	3
OR	OR	OR		OR	OR	OR	
CHEM	484	Chemical Toxicology (3)		CHEM	484	Chemical Toxicology (3)	
CHEM	490	Seminar	1	<del>CHEM</del>	<del>490</del>	<del>Seminar</del>	<del>1</del>
CHEM	498	Research	2	CHEM	498	Research	2
EDFN	101	Exploration of Teaching & Learning	1	<del>EDFN</del>	<del>101</del>	<del>Exploration of Teaching &amp; Learning</del>	<del>1</del>
				<del>EDFN</del>	<del>102</del>	<del>Introduction to Teaching</del>	<del>3</del>
EDFN	340	Adolescent Development in Educational Contexts	3	EDFN	340	Adolescent Development in Educational Contexts	3

## Existing Curriculum

Proposed Curriculum (*highlight changes*)

Pref.	Num.	Title	Cr. Hrs	Pref.	Num.	Title	Cr. Hrs.
EDFN	351	Teaching & Learning I	1	EDFN	351	Teaching & Learning I	1
EDFN	352	Teaching & Learning II	3	EDFN	352	Teaching & Learning II and Lab	3
EDFN	352L	Teaching & Learning II Lab	2	<b>EDFN</b>	<b>352L</b>	<b>Teaching &amp; Learning II Lab</b>	<b>2</b>
EDFN	453	Teaching & Learning III	3	EDFN	453	Teaching & Learning III	3
EDFN	453L	Teaching & Learning III Lab	4	EDFN	453L	Teaching & Learning III Lab	4
EDFN	454	Teaching & Learning IV	11	EDFN	454	Teaching & Learning IV	11
MATH	125	Calculus II	4	MATH	125	Calculus II	4
PHYS	111	Introduction to Physics I	3	PHYS	111	Introduction to Physics I	3
PHYS	111L	Introduction to Physics I Lab	1	PHYS	111L	Introduction to Physics I Lab	1
PHYS	113	Introduction to Physics II	3	PHYS	113	Introduction to Physics II	3
PHYS	113L	Introduction to Physics II Lab	1	PHYS	113L	Introduction to Physics II Lab	1
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
				<b>SPED</b>	<b>100</b>	<b>Introduction to Persons with Exceptionalities</b>	<b>3</b>
<b>Electives</b> (Taken as needed to complete any additional degree requirements)			<b>2</b>	<b>Electives</b> (Taken as needed to complete any additional degree requirements)			<b>0</b>
<b>Summary of Credits Chemistry Education (B.S.)</b>							
<b>System General Education Requirements</b>			<b>22</b>	<b>System General Education Requirements</b>			<b>22</b>
<b>Majors Requirements</b>			<b>96</b>	<b>Majors Requirements</b>			<b>98</b>
<b>Electives</b> (Taken as needed to complete any additional degree requirements)			<b>2</b>	<b>Electives</b> (Taken as needed to complete any additional degree requirements)			<b>0</b>
Total number of hours required for major			100	Total number of hours required for major			102
Total number of hours required for degree			120	Total number of hours required for degree			120

**Academic Requirements***Current:*

- A grade of “C” or better is required in CMST 101, ENGL 101, PSYC 101, and MATH 103 or higher (if these courses are in your plan of study), and all courses for the major (classes with department/program prefix).
- An overall GPA of 2.5 is required to enroll in any education courses.

*Proposed:*

- A grade of “C” or better is required in education coursework (classes with AIS, EDFN, SPED, or SEED prefixes).
- A grade of “C” or better is required in academic major coursework (classes with BIOL, CHEM, or PHYS prefix).
- An overall GPA of 2.5 is required.
- A GPA of 2.7 is required in both major and education courses.

**Acceptance into Teacher Education**

- A grade of “C” or better is required in education coursework (classes with AIS, EDFN, SPED, or SEED prefixes).
- An overall GPA of 2.5 is required.
- A GPA in the academic major of 2.6 is required.
- Completion of program application and professional licensure location form.

**Acceptance into Residency I**

- A grade of “C” or better is required in education coursework (classes with AIS, EDFN, SPED, or SEED prefixes).
- An overall GPA of 2.5 is required.
- A GPA of 2.7 is required in both major and education courses.
- The teacher candidate must take the Praxis content exam.
- The teacher candidate is also required to complete a criminal background check with field placements, a TB test with negative reading, and CPR and first aid certification.

**Acceptance into Residency II**

- A grade of “C” or better is required in education coursework (classes with AIS, EDFN, SPED, or SEED prefixes).

- An overall GPA of 2.5 is required.
- A GPA of 2.7 is required in both major and education courses.
- The teacher candidate must take the Praxis PLT exam.

## **8. Explanation of the Change:**

In August 2024, the SDBOR approved the Gateway to Teacher Education Certificate. This 12-credit certificate provides a jumpstart for South Dakota high school students with a career interest in PK-12 teacher education and provides knowledge about teacher education degree programs within South Dakota Regental Institutions. In addition to six credits towards their general education requirements, students will complete EDFN 102 Introduction to Teaching (3 cr.) and SPED 100 Introduction to Persons with Exceptionalities (3 cr.). The certificate is intended to be stackable with elementary, secondary, and special education programs. The Chemistry Education major has been revised to incorporate EDFN 102 and SPED 100. EDFN 102 and SPED 100 have replaced EDFN 101 Exploration of Teaching & Learning (1 cr.), EDFN 352L Teaching & Learning II Lab (3 cr.), and CHEM 490 Seminar (1 cr.) in the program requirements.

Changes to academic requirements stem from changes to state level certification requirements. Language has been updated to reflect how students in teacher education programs progress through their program requirements toward graduation.