

## SOUTH DAKOTA BOARD OF REGENTS ACADEMIC AFFAIRS FORMS

## Substantive Program Modification Program

UNIVERSITY:	SDSU
<b>CURRENT PROGRAM TITLE:</b>	ACS Certified Chemistry (B.S.) [S.BS.CAC]
CIP CODE:	40.0501
UNIVERSITY DEPARTMENT:	Chemistry & Biochemistry
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							5/8/18	
	Vice President of Academic Affairs or						Date		
	President of the Univ				versity				
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1. 1	nis i		ion ado	iresses a chan		_	TT ( 1	1. 6 1	
	10	otal credits	s requi	red within the d	lisciplin	ne 🗆	Total of	credits of supportive course work	
	To	otal credits	s of ele	ctive course w	ork		Total of		
	Pr	ogram na	me				Existi	ng specialization	
	☐ CIP Code				$\boxtimes$	Other:			
<b>2</b> E	ffoot	ivo doto (	of chor		A codo	mic Vog	r	unent Requirements	
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<b>J.</b> I	TUGI	ann Degr		Dachalor'a		Mosto	<b>r</b> 'a 🗆		
		Associate		Dachelor s		wiaste			
4. (	ateg	ory:	_	~	_		_		
	C	ertificate		Specializatio	on 🗌	Mi	nor 🗌	Major 🗵	
5. I	f a na	ame chan	ge is p	roposed, the c	hange v	will occu	r:		
		On the	effecti	ve date for all s	students				
		On the	effecti	ve date for stud	lents ne	w to the	program	n (enrolled students will graduate	
		from ey	xisting	program)			1 0		
1	Dron	and now	nomo:	F8					
1 6 D	nime		ta of t	Modificatio	<b>n</b> .				
<b>0. r</b>	I IIII a	Evisting			<b>)</b> ]];		Duonog	ad Cumiaulum (highlight aligness)	
Drugf N.		Existing Title	Curric	uium	Cr. II.	Druck	N	ea Curricuium ( <mark>nigniigni changes</mark> )	C- II-
Systems Con	im. eral F	ducation Re	auiromo	nte	<b>Cr. Hrs.</b> 33	Prel.	Num. Conoral Fo	1100 ducation Requirements	<u>Cr. Hrs.</u> 33
SGR 1 – Writ	ten Co	mmunication	quirente	into	6	SGR 1 – Y	Written Con	mmunication	6
ENGL 101 Co	ENGL 101 Composition I (3)			-	ENGL 101 Composition I (3)				
ENGL 201 Composition II (3)				ENGL 20	ENGL 201 Composition II (3)				
SGR 2 – Oral Communication			3	SGR 2 – Oral Communication			3		
SPCM 101 Fundamentals of Speech			6	SPCM 10	SPCM 101 Fundamentals of Speech				
$\frac{30K 3 - 30Cl}{SGR 4 - Hum}$	SGR 4 – Humanities and Arts/Diversity				6	SGR 4 – Humanities and Arts/Diversity			6
SGR 5 – Math	SGR 5 – Mathematics			4	SGR 5 – Mathematics			4	
MATH 123 Calculus I				MATH 123 Calculus I					
SGR 6 – Natural Sciences			8	SGR 6 – Natural Sciences					
СНЕМ 115-1	15L A1	omic & Mol	ecular St	ructure & Lab (3,1)		CHEM 1	15-115L At	tomic & Molecular Structure & Lab (3,1)	

Existing Curriculum				Proposed Curriculum ( <mark>highlight changes</mark> )					
CHEM 127-127L Structure and Function of Organic				CHEM 127-127L Structure and Function of Organic Molecules &					
Molecules & Lab (3,1)				Lab (3,1)			12.		
A & College Requirements				Additional required gradits of coursework howord SCPs			13+ 2		
SGRs Major and Support Courses				Major and Support Courses			<b>.</b>		
Natural Sciences (10+)				Natural Sciences (10+)					
Satisfying	g coursework	must include	0	Satisfying coursework must include					
-	at least two cl	lasses with laboratory components		<ul> <li>at least two classes with laboratory components</li> </ul>					
-	at least two d	ifferent prefixes		<ul> <li>at least two different prefixes</li> </ul>					
(MATH a	nd STATS cou	urses do not count toward the Science		(MATH and STATS courses do not count toward the Science					
requireme	ent.)			requireme	requirement.)				
6 credits (	of SGR #6 are	counted toward this goal ersity Physics L& Lab $(A)$		6 credits of PHVS 21	O Credits of SOR #6 are counted toward tins goal PHYS 211-2111 University Physics I & Lab (4)				
Δ&ς	111 Ir	atroduction to Global Citizenship	3		111 Ir	atroduction to Global Citizenshin and	3		
Add		nd Diversity	5	AIISS	D	iversity	5		
One dec	lared minor	outside of the major prefix OR a	-	One decl	ared minor of	outside of the major prefix OR a second	-		
second n	najor OR a te	eaching specialization. The minor		major OR a teaching specialization. The minor may be a					
may be	a traditional	minor within one department or		traditional minor within one department or it may be					
it may b	e interdiscip	olinary involving more than one		interdisc	interdisciplinary involving more than one department. The				
departm	ent. The mir	or can be in a different college.		minor ca	an be in a o	different college. The minor must be			
The min	or must be de	eclared no later than the student's		declared	declared no later than the student's third semester of				
third sen	nester of enr	ollment.		enrollme	enrollment.				
CHEM	e course with	nin major Juate Research/Scholarshin		Capston CHEM (	Capstone course within major				
Upper I	Division Cre	dits (300-400 level coursework	33	Upper D	ivision Crea	dits (300-400 level coursework inside	33		
inside and outside of the major)			00	and outside of the major)					
Major F	Requirement	is a second s	37	Major F	Major Requirements				
Major Core			28	Major Core			28		
CHEM	119	First Year Seminar	1	CHEM	119	First Year Seminar	1		
CHEM	229-229L	Transformations of Organic Molecules and Lab	4	CHEM	229-229L	Transformations of Organic Molecules and Lab	4		
CHEM	236	Equilibrium and Energetics of Molecular Systems	2	CHEM	236	Equilibrium and Energetics of Molecular Systems	2		
CHEM	237	Intermediate Laboratory	3	CHEM	237	Intermediate Laboratory	3		
		Investigations				Investigations			
CHEM	332-332L	Analytical Chemistry 1 & Lab	4	CHEM	332-332L	Analytical Chemistry 1 & Lab	4		
CHEM	343-343L	Fundamentals of Thermodynamics & Lab	2, 1	CHEM	343-343L	Fundamentals of Thermodynamics	2, 1		
CHEM	360	Chemistry of Biological	3	CHEM	360	Chemistry of Biological	3		
CIILM	500	Macromolecules	5	CHEM	500	Macromolecules	5		
CHEM	361	Chemistry of Biological	1	CHEM	361	Chemistry of Biological Molecules	1		
		Molecules Lab				Lab			
CHEM	452-452L	Inorganic Chemistry & Lab	4	CHEM	452-452L	Inorganic Chemistry & Lab	4		
CHEM	498	Undergraduate	3	CHEM	498	Undergraduate Research/Scholarship	3		
		Research/Scholarship (Research				(Research Experience)			
Maian/T	a shari sal Els	Experience)	0	Maiau/T	a alteria a l. 171a		0		
Najor/ recinical Electives			9	Salact 0 gradits from the list balow			9		
CHEM		Intermediate Organic	2	CHEM		Intermediate Organic Chemistry	2		
CHEM	529	Chemistry	2	CHEM	529	Internetiate Organic Chemistry	2		
CHEM	329L	Intermediate Organic	2	CHEM	329L	Intermediate Organic Chemistry	2		
		Chemistry Lab				Lab			
CHEM	345	Quantum Mechanics	3	CHEM	345	Quantum Mechanics	3		
CHEM	347	Chemical Kinetics	2	CHEM	347	Chemical Kinetics	2		
CHEM	432	Analytical Chemistry II	2	CHEM	432	Analytical Chemistry II	2		
CHEM	433	Bioanalytical Chemistry	3	CHEM	433	Bioanalytical Chemistry	3		
CHEM	448-448L	Biophysical Chemistry & Lab	4	CHEM	448-448L	Biophysical Chemistry & Lab	4		
CHEM	465	Biochemistry II	3	CHEM	465	Biochemistry II	3		
CHEM	482	Environmental Chemistry	3	CHEM	482	Environmental Chemistry	3		
CHEM	484	Chemical Toxicology	3	CHEM	484	Chemical Toxicology	3		

Program Forms: Substantive Program Modification Form (Last Revised 08/2016)

Existing Curriculum				Proposed Curriculum ( <mark>highlight changes</mark> )				
Support Courses			16	Support Courses				
MATH	125	Calculus II	4	MATH	125	Calculus II	4	
MATH	225	Calculus III	4	MATH	225	Calculus III	4	
PHYS	211-211L	University Physics I and Lab	4	PHYS	211-211L	University Physics I and Lab	4	
PHYS	213-213L	University Physics II and Lab	4	PHYS	213-213L	University Physics II and Lab	4	
Electives (Taken as needed to complete any			31	Electives (Taken as needed to complete any additional			31	
addition	al degree red	quirements)		degree re	degree requirements)			
Summary of Credits ACS Certified Chemistry (B.S.)								
System	System General Education Requirements33System General Education Requirements			System	System General Education Requirements			
A&S College Requirements			13+	A&S College Requirements				
Additional required credits of coursework beyond			3+	Additional required credits of coursework beyond SGRs,				
SGRs, M	lajor, and Su	pport Courses		Major, and Support Courses				
				Department Requirements			<mark>13+</mark>	
				Additional required credits of coursework beyond SGRs,			<mark>3+</mark>	
				Major, and Support Courses				
Majors Requirements			37	Majors Requirements			37	
Support Courses			16	Support Courses			16	
Electives (Taken as needed to complete any			31	Electives (Taken as needed to complete any additional			31	
additional degree requirements)				degree requirements)				
Total number of hours required for major				Total number of hours required for major			53	
Total number of hours required for degree				Total number of hours required for degree				

## 7. Explanation of the Change:

The Department of Chemistry & Biochemistry will move from the College of Arts & Sciences to the College of Natural Sciences effective July 1, 2018. The College of Arts & Sciences requirements have been realigned as department requirements within the program. Additional changes include:

• The College of Arts & Sciences has been restructured and renamed the College of Arts, Humanities, and Social Sciences. The A&S prefix has also been replaced with the AHSS prefix to make it easier to identify the coursework.