

## SOUTH DAKOTA BOARD OF REGENTS ACADEMIC AFFAIRS FORMS

## Substantive Program Modification Program

UNIVERSITY:	SDSU
<b>CURRENT PROGRAM TITLE:</b>	Geographic Information Sciences (B.S.)
	[S.BS.GSI]
CIP CODE:	45.0702
UNIVERSITY DEPARTMENT:	Geography
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			
I	President of the Univer	sity					
1 This modificatio	n addresses a change	in·					I
	required within the dis			Total cr	edits of supr	ortive course work	
	of elective course worl	-			11	d for program	
		N				1 0	
Program nam	e				g specializati		
$\Box$ CIP Code			$\boxtimes$			of College and	
				1	nent Require	ements	
	change: 2018-2019 A	cadem	ic Yea	r			
3. Program Degree							
Associate	□ Bachelor's ▷	$\leq$	Maste	r's 🗌	Doctoral		
4. Category:							
Certificate	□ Specialization		Mi	nor 🗌	Major	$\boxtimes$	
5. If a name change	e is proposed, the cha	nge wi	ll occu	r:			
6	ffective date for all stu	0					
$\Box$ On the e	ffective date for studer	nts new	to the	program (	enrolled stu	dents will graduate	
	sting program)		to the	program	chi oned sta	dents will graduate	
	• • •						
Proposed new n							-
• •	s of the Modification:			D		A • 1 1• 1 • 1	
Ŭ	Curriculum	C II	D f			m ( <mark>highlight change</mark>	
f. Num. Title ems General Education Requ	irements	Cr. Hrs			itle ducation Requi	rements	Cr. Hrs
enis General Education Requ	in ements	30 21	System	b Ocherar E	uucation Requi	rements	21
R 1 – Written Communicatio	On	6	SGR 1	– Written C	Communication	n	6
GL 101 – Composition I				101 – Com			
GL 201 – Composition II			ENGL	201 – Com	position II		
R 2 - Oral Communication	maaah	3			nmunication	aaah	3
<u>CM 101 – Fundamentals of S</u> R 3 – Social Sciences/Divers		6			lamentals of Spiences/Diversi		6
DG 200 Intro to Human Geo		3	SOK 3		iences/Diversi	ly	
	ography (Major Core)	5	UEUU	i 200 Intro fe	o Human Geos	graphy (Major Core)	3

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

Existing Curriculum

*Proposed Curriculum* (*highlight changes*)

Existing Curriculum				Proposed Curriculum (highlight changes)         SGR 5 – Mathematics       3					
SGR 5 – Mathematics			3	SGR 5 – Mathematics					
SGR 6 – Natural Sciences			6 0	SGR 6 – Natural Sciences					
GEOG 131-131L Physical Geography: Weather and					GEOG 131-131L Physical Geography: Weather and				
Climate (Major Core)					Climate (Major Core)				
GEOG 132-132L Physical Geography: Natural Landscapes (Major Core)					GEOG 132-132L Physical Geography: Natural Landscapes (Major Core)				
			13+				<mark>13+</mark>		
<b>A&amp;S College Requirements</b> Additional required credits of coursework beyond SGRs,			13+ 5		<b>Department Requirements</b> Additional required credits of coursework beyond SGR				
	and Support		C		Major, and Support Courses				
	Sciences (10+		10		Natural Sciences (10+)				
		vork must include	2	Satisfying coursework must include					
- at least two classes with laboratory components			-	- at least two classes with laboratory components					
	- at least two different prefixes			- at least two different prefixes					
		purses do not count toward the Science		(MATH and STATS courses do not count toward the Science					
requirem	,	21 1211		requiren		121 1211 and 122 1221 accord to a set			
( <u>8</u> creau this goa	S 0J GEUG I 1 2 addition	31-131L and 132-132L count towards Il credits from another Prefix				131-131L and 132-132L count towards			
required		u creaus from anomer i refix			this goal. 2 additional credits from another Prefix required.)				
A&S		Introduction to Global Citizenship	3	AHSS	111	Introduction to Global Citizenship	3		
need		and Diversity	5	<u><sup>2</sup> 1155</u>	111	and Diversity	5		
One dec		outside of the major prefix OR a	_	One dec	lared mino	r outside of the major prefix OR a	_		
		teaching specialization. The minor			second major OR a teaching specialization. The minor				
		minor within one department or it		may be a traditional minor within one department or it					
		nary involving more than one			may be a traditional minor within one department of it may be interdisciplinary involving more than one				
		nor can be in a different college.			department. The minor can be in a different college.				
		declared no later than the student's		The minor must be declared no later than the student's					
third se	mester of en	rollment.		third semester of enrollment.					
	ne course wi				Capstone course within major				
		phy of the Future		GEOG 447 Geography of the Future					
Upper Division Credits (300-400 level coursework		33		Upper Division Credits (300-400 level coursework					
inside and outside of the major)					inside and outside of the major)				
Major Requirements			41	Major Requirements					
major				major	a segun chie	1105	41		
	131-131L	Physical Geography: Weather and	4		131-131L	Physical Geography: Weather and	4		
GEOG	131-131L	Physical Geography: Weather and Climate (SGR 6)	4	GEOG	131-131L	Physical Geography: Weather and Climate (SGR 6)			
	131-131L	Physical Geography: Weather and Climate (SGR 6) Physical Geography: Natural		GEOG		Physical Geography: Weather and Climate (SGR 6) Physical Geography: Natural	4		
GEOG GEOG	131-131L 132-132L	Physical Geography: Weather and Climate (SGR 6) Physical Geography: Natural Landscapes (SGR 6)	4	GEOG GEOG	131-131L 132-132L	Physical Geography: Weather and Climate (SGR 6) Physical Geography: Natural Landscapes (SGR 6)	4		
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GEOG GEOG GEOG	131-131L 132-132L 200 210	Physical Geography: Weather and Climate (SGR 6) Physical Geography: Natural Landscapes (SGR 6) Intro. to Human Geography (SGR 3) World Regional Geography	4 4 3 3	GEOG GEOG GEOG GEOG	131-131L 132-132L 200 210 372-372L	Physical Geography: Weather and Climate (SGR 6) Physical Geography: Natural Landscapes (SGR 6) Intro. to Human Geography (SGR 3) World Regional Geography Introduction to GIS	4 4 3 3 3		
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Program Forms: Substantive Program Modification Form (Last Revised 08/2016)

CEE 434-534 – Hydrology (3)		CEE 434-534 – Hydrology (3)				
CSC 105 - Introduction to Computers (COM) (3)		CSC 105 - Introduction to Computers (COM) (3)				
CSC 150 - Computer Science I (COM) (3)		CSC 150 - Computer Science I (COM) (3)				
CSC 205 - Advanced Computer Applications (COM) (3)		CSC 205 - Advanced Computer Applications (COM) (3)				
CSC 474-574 - Computer Networks (3)			CSC 474-574 - Computer Networks (3)			
GE 121 - Engineering Design Graphics I (1)		GE 121 - Engineering Design Graphics I (1)				
GEOG 384-384L - Advanced Cartography & Lab (3)		GEOG 384-384L - Advanced Cartography & Lab (3)				
GEOG 485-485L - Quantitative Remote Sensing & Lab (3	3)	GEOG 485-485L - Quantitative Remote Sensing & Lab (3	)			
	,	INFO 101 - Introduction to Informatics (3)				
MATH 115 - Precalculus * (COM) (5)	MATH 115 - Precalculus * (COM) (5)		MATH 115 - Precalculus * (COM) (5)			
		MATH 120 - Trigonometry (COM) (3)				
Summary of Credits Geographic Information Sciences (B.S.)						
System General Education Requirements	30	System General Education Requirements	30			
Additional required credits of coursework beyond Major	21	Additional required credits of coursework beyond Major	21			
and Support Courses		and Support Courses				
A&S College Requirements	13+	A&S College Requirements	<mark>13+</mark>			
Additional required credits of coursework beyond SGRs,	5+	Additional required credits of coursework beyond SGRs,	<mark>5+</mark>			
Major, and Support Courses		Major, and Support Courses				
		Department Requirements	<mark>13+</mark>			
		Additional required credits of coursework beyond SGRs,	<mark>5+</mark>			
		Major, and Support Courses				
Majors Requirements	41	Majors Requirements	41			
Electives (Taken as needed to complete any additional	53	Electives (Taken as needed to complete any additional	53			
degree requirements)		degree requirements)				
Total number of hours required for major	41	Total number of hours required for major	41			
Total number of hours required for degree	120	Total number of hours required for degree	120			

## 7. Explanation of the Change:

The Department of Geography 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 to the program 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.
- CEE 304 Land Survey was removed from the electives list because it is no longer taught by Civil Engineering.
- GEOG 372-372L Introduction to GIS was moved from the elective requirements (*Choose six of the following courses (18 credits)* to Major Requirements. It was felt that since this was a GISc major that the intro GIS course should be in the required courses.
- GEOG 476-476L Web GIS was added to the list of six courses required for the Geographic Information Sciences major. Web GIS has enjoyed great popularity in the internet era. This course covers the basic theories, principles, and protocols of Web GIS.
- INFO 101 Introduction to Informatics was added to the Electives list because it provides basic informatics and computer programming skills that will be useful to majors in GISc.
- MATH 120 Trigonometry was moved from Major Requirements to Electives. The discipline has changed over the last 15 years that it does not merit to be a Major Requirement anymore.