



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

**Substantive Program Modification Form**

<b>UNIVERSITY:</b>	<b>SDSU</b>
<b>CURRENT PROGRAM TITLE:</b>	<b>Geospatial Science &amp; Engineering (Ph.D.) – Remote Sensing Geography Specialization</b>
<b>CIP CODE:</b>	<b>03.0104</b>
<b>UNIVERSITY DEPARTMENT:</b>	<b>Geography</b>
<b>UNIVERSITY DIVISION:</b>	<b>Graduate School</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

4/27/2019

\_\_\_\_\_  
Vice President of Academic Affairs or  
President of the University

\_\_\_\_\_  
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 checked="" type="checkbox"/> Program name                                 | <input checked="" type="checkbox"/> Existing specialization      |
| <input type="checkbox"/> CIP Code  | <input type="checkbox"/> Other (explain below)                   |

**2. Effective date of change:** 2019-2020 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: **Geospatial Science & Engineering (Ph.D.) – Remote Sensing Specialization**

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

*Existing Curriculum*

*Proposed Curriculum (highlight changes)*

Pref.	Num.	Title	Cr. Hrs.	Pref.	Num.	Title	Cr. Hrs.
						<b>60 Credit Plan</b>	
				<b>GEOG</b>	<b>710</b>	<b>Evolution of Geographic Thought</b>	<b>3</b>
GSE	740	Introduction to Geospatial Science and Engineering	3	GSE	740	Introduction to Geospatial Science and Engineering	3
GSE	790	Seminar in Geospatial Science and Engineering (1)	3	GSE	790	Seminar in Geospatial Science and Engineering (1)	3
GSE	898	Dissertation Coursework	36	GSE	898	Dissertation Coursework	36
		Specialization Coursework	6			Specialization Coursework	6
		Supporting Coursework	12-15			Supporting Electives (Students should consult their advisors to identify courses suitable for their area of interest)	<b>9</b>

<i>Existing Curriculum</i>				<i>Proposed Curriculum (highlight changes)</i>			
Pref.	Num.	Title	Cr. Hrs.	Pref.	Num.	Title	Cr. Hrs.
						<b>90 Credit Plan</b>	
				<b>GEOG</b>	<b>710</b>	<b>Evolution of Geographic Thought</b>	<b>3</b>
				GSE	740	Introduction to Geospatial Science and Engineering	3
				GSE	790	Seminar in Geospatial Science and Engineering (1)	3
				GSE	898	Dissertation Coursework	36
						Specialization Coursework	6
						Supporting Electives (Students should consult their advisors to identify courses suitable for their area of interest)	<b>39</b>
Total number of hours required for specialization			60	Total number of hours required for specialization			60
			90				90
Total number of hours required for degree			60	Total number of hours required for degree			60
			90				90

### 7. Explanation of the Change:

This change is part of streamlining the “remote sensing” specializations. “Geography” will be removed from this specialization and the Geospatial Science & Engineering (Ph.D.) – Remote Sensing Engineering Specialization will be terminated. This way there is one “remote sensing” specialization that will be shared by Engineering and Geography. Also, GEOG 710 Evolution of Geographic Thought is added to the required courses. This course gives students a background to the history and philosophy of paradigms and areas of research in the discipline.