



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

<b>UNIVERSITY:</b>	<b>USD</b>
<b>TITLE OF PROPOSED SPECIALIZATION:</b>	<b>Conservation and Biodiversity</b>
<b>NAME OF DEGREE PROGRAM IN WHICH SPECIALIZATION IS OFFERED:</b>	<b>Biology, M.S.</b>
<b>INTENDED DATE OF IMPLEMENTATION:</b>	<b>8/22/2017</b>
<b>PROPOSED CIP CODE:</b>	<b>26.0101</b>
<b>UNIVERSITY DEPARTMENT:</b>	<b>Biology</b>
<b>UNIVERSITY DIVISION:</b>	<b>Arts &amp; Sciences</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.*

<i>Elizabeth M. Freeburg</i>	3/20/17
Institutional Approval Signature <i>President or Chief Academic Officer of the University</i>	Date

**1. Level of the Specialization (place an "X" in the appropriate box):**

Baccalaureate       Master's       Doctoral

**2. What is the nature/purpose of the proposed specialization?**

The proposed specialization in Conservation and Biodiversity to the M.S. in Biology will focus on courses in subjects closely related to Ecology, Conservation, and Biodiversity, and will reflect an area of research interest and strength within the Department of Biology. Ecology is the study of the relationships between organisms and their environments including the physical and biological contexts in which they live. Conservation Biology includes organismal, landscape, and ecosystem ecology and other fields aimed at studying ways to manage resources to maintain biodiversity and functioning ecosystems. The study of biodiversity includes aspects of genetic, taxonomic, and systematic variability and the evolutionary processes which generate and maintain that variability across landscapes, ecosystems, and time.

**3. Provide a justification for the specialization, including the potential benefits to students and potential workforce demand for those who graduate with the credential.<sup>1</sup>**

We are requesting the addition of a Conservation and Biodiversity Specialization to our M.S. graduate offerings. The proposed specialization will highlight the USD Biology faculty's expertise in Conservation Biology to prospective students. One of the goals of the change is to increase our visibility to students looking for a graduate program in this discipline. We also feel that by specifically designating our M.S. students' specialization in conservation and biodiversity we will make them more attractive to federal, state, and non-governmental agency employers in the natural resources and land-management fields. The proposed specialization will indicate a higher level of specificity to potential employers than is suggested by an unspecialized M.S. in Biology and will indicate that graduates have a specific marketable skillset and competencies. The U.S. Bureau of

<sup>1</sup> For workforce related information, please provide data and examples; data sources may include but are not limited to the South Dakota Department of Labor, the US Bureau of Labor Statistics, Regental system dashboards, etc.

Labor Statistics anticipates job growth in Conservation and Biodiversity to be 7% over the next 8 years.<sup>2</sup> Additionally, the South Dakota Department of Labor and Regulation estimates job growth for Forest and Conservation Workers to be 6.16% over the next 8 years.<sup>3</sup>

**4. List the proposed curriculum for the specialization (including the requirements for completing the major – *highlight courses in the specialization*):**

<b>Biology, M.S., Conversation and Biodiversity Specialization</b>				
Prefix	Number	Course Title	Credit Hours	New (yes, no)
<b>Core Curriculum</b>				
Choose Plan A or Plan B				
Plan A				
BIOL	790	Graduate Seminar in Biology <sup>^</sup>	2-3	No
BIOL	792	Topics in Biology*	2	No
BIOL	798	Thesis Research	6	No
<b>Total Core Plan A</b>			<b>10-11</b>	
Advisor approved electives in BIOL (BIOL 798-3 additional hours allowed)			<b>0-3</b>	
<b>Conservation and Biodiversity Specialization</b>			<b>16</b>	
Advisor approved supporting courses			<b>0-4</b>	
<b>Plan A subtotal:</b>			<b>30</b>	
Plan B				
BIOL	790	Graduate Seminar in Biology <sup>^</sup>	2-3	No
<b>Total core Plan B</b>			<b>2-3</b>	
Advisor approved electives in BIOL			<b>2-14</b>	
<b>Conservation and Biodiversity Specialization</b>			<b>16</b>	
Advisor approved supporting courses			<b>0-12</b>	
<b>Plan B subtotal:</b>			<b>32</b>	
<sup>^</sup> No more than three cr hrs. of BIOL 790 will count toward the program of study. <sup>*</sup> or NSCI 792/other topics course that will fulfill the two course topics requirement. Topic courses taken under a different prefix will be considered supporting coursework and will not count toward the required credit hours in Biology. <sup>**</sup> For plan A, at least 21 of the total 30 cr. required for the degree must be taken with a BIOL prefix. For plan B, at least 20 of the total 32 cr. required for the degree must be taken with a BIOL prefix.				

**Biology, M.S., Conversation and Biodiversity Specialization**

<b>Required Courses for the Specialization: Conservation and Biodiversity</b>				
BIOL	711	Foundations of Ecology and Conservation	3	Yes
BIOL	787	Professional Development in Biology	3	Yes
BIOL	720/L	Survey of Biostatistical Methods	4	No
Advisory committee approved elective in Biodiversity or Conservation/Ecology			6	No
<b>Required Specialization Subtotal</b>			<b>16</b>	
Total number of hours required for completion of specialization			16	
Total number of hours required for completion of major			30-32	
Total number of hours required for completion of degree			30-32	

<sup>2</sup> <https://www.bls.gov/ooh/life-physical-and-social-science/conservation-scientists.htm>

<sup>3</sup> <https://www.sdvlmi.com/vosnet/analyzer/results.aspx?session=occpj&area=4601000000&timeperiod=20140020240005>

5. Complete the following charts to indicate if the university intends to seek authorization to deliver the entire specialization at any off-campus location (e.g., UC Sioux Falls, Capital University Center, Black Hills State University-Rapid City, etc.) or intends to seek authorization to deliver the entire specialization through distance technology (e.g., as an on-line program)?<sup>4</sup>

	Yes/No	If Yes, list location(s), including the physical address	Intended Start Date
<b>Off-campus</b>	No		

	Yes/No	If Yes, identify delivery methods	Intended Start Date
<b>Distance Delivery</b>	No		

6. **Additional Information:** *Additional information is optional. Use this space to provide pertinent information not requested above. Limit the number and length of additional attachments. Identify all attachments with capital letters. Letters of support are not necessary and are rarely included with Board materials. The University may include responses to questions from the Board or the Executive Director as appendices to the original proposal where applicable. Delete this item if not used.*

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<sup>4</sup> The accreditation requirements of the Higher Learning Commission (HLC) require Board approval for a university to offer programs off-campus and through distance delivery.