

**SOUTH DAKOTA BOARD OF REGENTS**

**Academic and Student Affairs**  
**Consent**

**AGENDA ITEM: 5 – D (5)**

**DATE: May 9, 2023**

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**SUBJECT**

**New Specialization Request – USD – Specialization in Neuroscience – MS in Biology**

**CONTROLLING STATUTE, RULE, OR POLICY**

[BOR Policy 2:23](#) – New Programs, Program Modifications, Curricular Requests and Inactivation/Termination

**BACKGROUND / DISCUSSION**

The University of South Dakota (USD) requests authorization to offer a specialization in Neuroscience within the MS in Biology program. The proposed specialization seeks to expand the current Neuroscience specializations from the PhD to the master’s degree by utilizing current resources from the Biology Department and Basic Biomedical Sciences program.

**IMPACT AND RECOMMENDATION**

USD requests authorization to offer the specialization on campus. USD is not requesting additional state resources to offer the program. Three new courses will be required, but are 500-level courses that already exist at the 400-level, which will be cross-listed.

Board office staff recommends approval of the program.

**ATTACHMENTS**

Attachment I – New Specialization Request Form: USD – Neuroscience – MS in Biology

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**DRAFT MOTION 20230509\_5-D(5):**

I move to authorize USD to offer a specialization in Neuroscience within the MS in Biology, as presented.



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

## New Specialization

<b>UNIVERSITY:</b>	<b>USD</b>
<b>TITLE OF PROPOSED SPECIALIZATION:</b>	<b>Neuroscience</b>
<b>NAME OF DEGREE PROGRAM IN WHICH SPECIALIZATION IS OFFERED:</b>	<b>MS, Biology</b>
<b>INTENDED DATE OF IMPLEMENTATION:</b>	<b>8/1/23</b>
<b>PROPOSED CIP CODE:</b>	<b>26.1501</b>
<b>UNIVERSITY DEPARTMENT:</b>	<b>Biology</b>
<b>BANNER DEPARTMENT CODE:</b>	<b>UBIO</b>
<b>UNIVERSITY DIVISION:</b>	<b>Arts &amp; Sciences</b>
<b>BANNER DIVISION CODE:</b>	<b>2A</b>

<b>X</b>	<p><b><u>Please check this box to confirm that (place an “X” in the left box):</u></b></p> <ul style="list-style-type: none"> <li>• The individual preparing this request has read <a href="#">AAC Guideline 2.6</a>, which pertains to new specialization requests, and that this request meets the requirements outlined in the guidelines.</li> <li>• This request will not be posted to the university website for review of the Academic Affairs Committee until it is approved by the Executive Director and Chief Academic Officer.</li> </ul>
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### 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.*

*Elizabeth M. Freeburg*

*3/9/2023*

Institutional Approval Signature

Date

*President or Chief Academic Officer of the University*

### 1. Level of the Specialization (place an “X” before the specialization):

<input type="checkbox"/>	Baccalaureate	<input checked="" type="checkbox"/>	Master’s	<input type="checkbox"/>	Doctoral
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### 2. What is the nature/purpose of the proposed specialization? Please include a brief (1-2 sentence) description of the academic field in this specialization.

This seeks to expand the current Neuroscience specializations from our PhD degree to our master’s degree utilizing current resources from both the Biology Department and Basic Biomedical Sciences. This will serve to increase enrollment in the relevant courses without the need for additional resources. ‘New’ courses added at the 500 level are cross-listed sections with current, regularly offered undergraduate courses.

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

*For workforce related information, please provide data and examples. Data may include, but are not limited to the South Dakota Department of Labor, the US Bureau of Labor Statistics, Regental system dashboards, etc. Please cite any sources in a footnote.*

This specialization builds upon the already existing specialization at the PhD level. With an expanded interest in Neuroscience among our undergraduate students, this will allow them the opportunity to obtain the necessary training with a MS degree for a wide variety of jobs. A recent Lightcast analysis on this specialization indicates a field that is highly increasing in demand over the past 5 years (+26.2%) from a reduced number of jobs in the past (6% below the National Average in 2016). The field maintains a posting intensity of 4-1 which is better than other occupations in this region (3-1). As this does not create new coursework, the new designation can help current students garner jobs as they matriculate with no additional burden to the university. There is also the potential to increase recruitment with this specialization being newly offered.

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

Prefix	Number	Course Title <i>(add or delete rows as needed)</i>	Credit Hours	New (yes, no)
<b>MS, Biology Plan A</b>				
BIOL	520/L	Biostatistics	3	No
		<i>Or equivalent quantitative course as approved by committee</i>		
BIOL	790	Graduate Seminar in Biology	2-3	No
BIOL	792	Topics in Biology	2	No
BIOL	798	Thesis Research in Biology	6-12	No
		Courses as approved by committee	13-20	No
<b>MS, Biology Plan B</b>				
BIOL	520	Biostatistics	3	No
		<i>Or equivalent quantitative course as approved by committee</i>		
BIOL	790	Graduate Seminar in Biology	2-3	No
		Courses as approved by committee	29-30	No
<b>Conservation Biology Specialization (15 credit hours)</b>				
BIOL	711	Foundations of Ecology	3	No
		<i>Or equivalent foundations course as approved by committee</i>		
BIOL	787	Professional Development in Biology	3	No
		<i>Or equivalent course as approved by committee</i>		
		Courses as approved by committee	9	No
<b>Neuroscience Specialization (15 credit hours from the group below)</b>				
BIOL	530	Neurobiology	3	No
BIOL	532/732	Behavioral Neuroscience	3	Yes

Prefix	Number	Course Title (add or delete rows as needed)	Credit Hours	New (yes, no)
BIOL	526	Endocrinology	3	Yes
BIOL	545	Cellular Neuroscience	3	Yes
BIOL	792	Topics in Biology (as approved by committee)	1-12	No
NSCI	500	Neuroscience Journal Club	1	No
NSCI	600	Neuroscience Techniques	3	No
NSCI	711	Discoveries in Neuroscience	3	No
NSCI	720	Neurobiology of Disease	3	No
NSCI	731	Medical Neuroscience	6	No
NSCI	792	Special Topics (as approved by committee)	1-6	No

Total number of hours required for completion of specialization	15
Total number of hours required for completion of major	30/32
Total number of hours required for completion of degree	30/32

## 5. Delivery Location

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

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

	Yes/No	Intended Start Date
<b>On campus</b>	Yes	8/1/23

	Yes/No	If Yes, list location(s)	Intended Start Date
<b>Off campus</b>	No		

	Yes/No	If Yes, identify delivery methods Delivery methods are defined in <a href="#">AAC Guideline 5.5</a> .	Intended Start Date
<b>Distance Delivery (online/other distance delivery methods)</b>	No		

**B. Complete the following chart to indicate if the university seeks authorization to deliver more than 50% but less than 100% of the specialization through distance learning (e.g., as an on-line program)? This question responds to HLC definitions for distance delivery.**

	Yes/No	If Yes, identify delivery methods	Intended Start Date
<b>Distance Delivery (online/other distance delivery methods)</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.*