

SOUTH DAKOTA BOARD OF REGENTS

Academic and Student Affairs
Consent

AGENDA ITEM: 5 – E (2)

DATE: May 11, 2021

SUBJECT

New Specialization: DSU Specialization in Biology Education

CONTROLLING STATUTE, RULE, OR POLICY

[BOR Policy 2:23](#) – Program and Curriculum Approval

BACKGROUND / DISCUSSION

Dakota State University (DSU) requests authorization to offer a specialization in Biology Education within the BS in Biology. DSU is proposing to combine the Bachelor of Science in Biology and the Bachelor of Science in Biology Education majors, and then package the existing courses into a 21-hour Biology core and two specializations (Integrative Biology or Biology Education). The goal of the specialization in Biology Education is to prepare graduates to teach biology in secondary schools. All DSU student education graduates complete a K-12 Educational Technology Endorsement.

IMPACT AND RECOMMENDATION

DSU requests authorization to offer the specialization on campus. The specialization will not require the creation of any new courses. DSU is not requesting additional state resources to offer the program.

Board office staff recommends approval of the program.

ATTACHMENTS

Attachment I – New Specialization Request Form: DSU – Biology Education

DRAFT MOTION 20210511_5-E(2):

I move to authorize DSU to offer a specialization in Biology Education within the BS in Biology, as presented.



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

New Specialization

UNIVERSITY:	DSU
TITLE OF PROPOSED SPECIALIZATION:	Biology Education
NAME OF DEGREE PROGRAM IN WHICH SPECIALIZATION IS OFFERED:	B.S. in Biology
INTENDED DATE OF IMPLEMENTATION:	5/10/2021
PROPOSED CIP CODE:	26.9999
UNIVERSITY DEPARTMENT:	College of Arts and Science - DAS
BANNER DEPARTMENT CODE:	DSCI
UNIVERSITY DIVISION:	DAS
BANNER DIVISION CODE:	DSCI

Please check this box to confirm that:

- The individual preparing this request has read [AAC Guideline 2.6](#), which pertains to new specialization requests, and that this request meets the requirements outlined in the guidelines.
- 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.

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.

Institutional Approval Signature

President or Chief Academic Officer of the University

2/23/2021

Date

Note: In the responses below, references to external sources, including data sources, should be documented with a footnote (including web addresses where applicable).

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? Please include a brief (1-2 sentence) description of the academic field in this specialization.

The university is proposing to combine the Bachelor of Science in Biology and the Bachelor of Science in Biology Education majors, take the existing courses and package them into a 21-hour

core and two specializations (Integrated Biology or English Education). The goal of the specialization in Biology Education is to prepare graduates to teach biology in secondary schools. All DSU student education graduates complete a K-12 Educational Technology Endorsement.

- 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 is the current Biology Education major offered by Dakota State University. Instead of having two different undergraduate Biology programs, DSU is proposing to combine the two programs under one umbrella. Enrollment numbers for Biology Education range from 2-5 over the last 5 years. Science education is a consistent need within the state of South Dakota. According to the BOR Fact Books only 10 Biology/Biology teachers were awarded degrees in FY20 and only 4 the year before. South Dakota Occupational Employment Projections for 2019-2021 project a 3.9% job growth with a total of 16 annual openings in the state of South Dakota.¹

¹ https://dlr.sd.gov/lmic/menu_projections.aspx

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

Prefix	Number	Course Title (add or delete rows as needed)	Credit Hours	New (yes, no)
Biology Component			11	
BIOL	325	Physiology	4	no
BIOL	325L	Physiology Lab	0	no
Choose 7 credits from the following:			7	
BIOL	335	Introduction to Bioinformatics	3	no
BIOL	343	Cell and Molecular Biology	4	no
BIOL	343L	Cell and Molecular Biology Lab	0	no
BIOL	365	Vertebrate Zoology	4	no
BIOL	365L	Vertebrate Zoology	0	no
BIOL	410	Conservation Biology	3	no
BIOL	422	Immunology	3-4	no
BIOL	442L	Immunology Lab	0-1	no
BIOL	450	Aquatic Biology	4	no
BIOL	450L	Aquatic Biology Lab	0	no
BIOL	492	Topics *	1-4	no
* May be repeated provided student does not enroll in the same topics courses.				
Chemistry Component			8	
CHEM	112	General Chemistry	4	no
CHEM	112L	General Chemistry Lab	0	no
CHEM	114	General Chemistry II	4	no
CHEM	114L	General Chemistry II Lab	0	no

Computer Technology Component			12	
CSC	105	Introduction to Computers	3	no
CIS	123	Problem Solving & Programming OR	3	no
CIS	130	Visual Basic Programming OR		
CSC	150	Computer Science OR		
CIS	350	Computer Hardware, Data Comm & Networking	3	no
BIOL	303	Introduction to Biological Instrumentation	3	no
Professional Education			28	
All Professional Education courses must be completed with a “C” or better. ¹ - Completed prior to admission to Teacher Education				
EDFN	338	Foundations of American Ed	2 ¹	no
EPSY	302	Educational Psychology	3 ¹	no
SEED	295	Practicum	1 ¹	no
SPED	100	Intro to Persons with Exceptionalities	3 ¹	no
Admission to the Teacher Education Program is required for the remaining courses.				
EDFN	475	Human Relations	3 ¹	no
SEED	302	Secondary/Middle Content Area: Major	2	no
SEED	401	Methods of Educational Technology	1	no
SEED	440	Classroom Management	2	no
SEED	450	Reading and Content Literacy	3	no
SEED	488	7-12 Student Teaching	8	no
Total number of hours required for completion of specialization			59	
Total number of hours required for completion of major			80	
Total number of hours required for completion of degree			120	

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., USD Community College for Sioux Falls, Black Hills State University-Rapid City, Capital City Campus etc.) or deliver the entire specialization through distance technology (e.g., as an on-line program)?

	Yes/No	Intended Start Date
On campus	Yes	Fall 2021

	Yes/No	If Yes, list location(s)	Intended Start Date
Off campus	No		Choose an item. Choose an item.

	Yes/No	If Yes, identify delivery methods Delivery methods are defined in AAC Guideline 5.5 .	Intended Start Date

Distance Delivery (online/other distance delivery methods)	No		Choose an item. Choose an item.
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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	<i>If Yes, identify delivery methods</i>	<i>Intended Start Date</i>
Distance Delivery (online/other distance delivery methods)	No		Choose an item. Choose an item.