Intent to Plan for a New Program
South Dakota Board of Regents
Academic Affairs Forms

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Use this form to request authorization to plan a new baccalaureate major, associate degree program, or graduate program; formal approval or waiver of an Intent to Plan is required before a university may submit a related full proposal request for a new program. The Executive Director and/or their designees may request additional information. After the university President approves the Intent to Plan, submit a signed copy to the Executive Director through the System Academic Officer through the proper process. Only post the Intent to Plan to the university website for review by other universities after approval by the Executive Director, System Academic Officer or designee. This form is meant to capture critical elements for stakeholders to review prior to a full proposal.

University BHSU - Black Hills State University
Degree MS : Master of Science
Name of Major X999 : New Major Requested **STEM Education** No
Specialization Required? *Note: If the new proposed program includes specific specializations within it, complete and submit a New Specialization Form for each proposed specialization and attach it to this form. Since specializations appear on transcripts, they require Board approval.*
College/Department 6D : BHSU College of Education/BSCE : School of Education
Intended Date of Full Proposal Fall 2026
Planned CIP Code 13.1316

Program Description

1. Provide the working program description that may appear in the university catalog.

The MS in STEM Education prepares students to teach and lead in science, technology, engineering, and mathematics.

Strategic Impact

2. Describe how the program fits in with the institutional mission, strategic plan, existing institutional program array, and academic priorities.

Institutional Mission: Part of BHSU's institutional mission is to meet regional workforce demands and this degree will help our local partners meet the sustained demand for STEM educators.

BHSU Strategic Plan: This degree request aligns with Goal 1, Objective 5 of the BHSU Strategic Plan, by improving student readiness for job searches and career planning. Additionally, the program aligns with Goal 2, Objective 3, aligning curriculum with emerging workforce needs in western South Dakota.

BHSU/SURF Collaborative Work Plan regarding Education and Outreach: This plan includes the development and offering a Master's degree in STEM education. The plan is attached.

The proposed program will provide a pathway for teachers to build their leadership capacity in STEM education by creating a professional network for novice and veteran P-12 teachers. Graduates will be equipped to mentor new STEM teachers in their districts, facilitate professional development for their peers, and connect with STEM researchers. Additionally, there are P-12 science teachers in South Dakota, particularly rural districts, teaching outside of their primary area of expertise and this program would provide the opportunity to strengthen their content and pedagogical knowledge in all areas of STEM education.

With the increasing complexity and interconnectedness of biotechnology, quantum computing, physics, and medicine, building the capacity of South Dakota's STEM educators is critical for workforce development.

If the program does not align to the strategic plan, provide a compelling rationale for the institution to offer the program.

3. How does the program connect to the Board of Regent's Strategic Plan?

This program connects directly with Goal 3 (Academic Excellence, Student Outcomes, Educational Attainment), Step 4 under Student Outcomes: Initiate collaborative partnerships for STEM pathways. Additionally, the program aligns directly with Goal 4 (Workforce and Economic Development), Step 1 under Workforce Alignment: Place special emphasis on STEM, Teacher Education, Nursing and Healthcare, and Business undergraduate completion.

Program Summary

4. If a new degree is proposed, what is the rationale?

This question refers to the type of degree, not the program. For example, if your university has authorization to offer the Bachelor of Science and the program requested is a Bachelor of Science, then the request is not for a new degree.

NA - BHSU is already authorized to offer MS degrees.

With the increasing complexity and interconnectedness of biotechnology, quantum computing, physics, and medicine, building the capacity of South Dakota's STEM educators is critical for workforce development.

5. What modality/modalities will be used to offer the new program?

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.

	Yes/No	Intended Start Date
On Campus	Yes	Fall 2026

	Yes/No	Location(s)	Intended Start Date
Off Campus Location	Yes	SURF	Fall 2026

	Yes/No	Delivery Method(s)	Intended Start Date
Distance Delivery	Yes	Online	Fall 2026

	Yes/No	Identify Institutions
Does another BOR institution already have authorization to offer the program online?	Yes	University of South Dakota offers STEM specialization in the elementary and secondary Master's degrees.

6. If the program will be offered through distance delivery, identify the planned instructional modality:

Both / HyFlex

Academic Quality

7. What peer institutions and current national standards will be referenced to develop the curriculum for this program? Include links to at least 3 comparable programs at peer institutions and links to national or accreditation standards, if any.

USD MA Elementary Education: STEM Education specialization: https://catalog.usd.edu/preview_program.php?catoid=40&poid=9297&returnto=2629

USD MA Secondary Education: STEM Education Specialization: https://catalog.usd.edu/preview_program.php?catoid=40&poid=9324

University of Nebraska Kearney STEM Education Program: https://www.unk.edu/academics/science-math-ed/program-courses.php

Colorado School of Mines: MS in STEM Education: https://www.mines.edu/teacherprep/programs-msse/

CAEP Advanced-level standards: https://caepnet.org/standards/2022-adv

8. What program accreditation is available, if any?

CAEP Advanced-level accreditation

9. Will the proposed program pursue accreditation or certifications?

Yes

If no, why has the department elected not to pursue accreditation for the program?

Duplication and Competition

10. Do any related programs exist at other public universities in South Dakota?

A list of existing programs is available through the university websites and the RIS Reporting: Academic Reports Database. If there are no related programs within the Regental system, indicate ***none.***

Yes, USD offers an MA in Elementary and Secondary Education with STEM specializations.

A. If yes, defend the need for an additional program within the state, Include IPEDS enrollment data and additional data as needed.

SURF is a unique, world-class research facility and we would like to leverage the location and expertise of the researchers there to improve teacher education as well as strengthen the partnership with BHSU. It is also a part of the approved BHSU-SURF Collaborative Work Plan.

B. If yes, would this program be a candidate for Regental system collaboration?

Yes

11. Do any related programs exist at any non-Regental college or university within 150 miles of the university?

List those programs here:

No

A. If yes, use IPEDS to identify the enrollment in those programs.

NA

B. What evidence suggests there is unmet student demand for the proposed program, or that the proposed program would attract students away from the existing program?

NA

Market Demand

This section establishes the market demand for the proposed program (eg Regental system need, institutional need, workforce need). Use the following sources for your data:

- South Dakota Department of Labor & Regulation
- O-Net
- US Department of Labor Projections Central
- SDBOR Workforce and Degree Gap Analysis Report

12. What is the expected growth of the industry or occupation in South Dakota and nationally?
Include the number of openings, as well as the percentage of growth when possible.

In addition to having more qualified STEM instructors in P-12 schools, this program would be tied to SD DOE STEM endorsement, qualifying completers to teach in the CTE STEM career clusters. The SD Department of Labor projects a 5.3% increase in secondary CTE teachers, with an average of 23 annual openings by 2032. Our conversations with local P-12 administrators lead us to believe this number is a severe undercount.

13. What evidence, if any, suggests there are unfilled openings in South Dakota or nationally?

Per the SD DOE, there is a 3-year average of 9.2 FTE unfilled science and math teaching positions, with the number increasing from 6.75 FTE in 2021-2022 to 10.5 FTE in 2023-2024. The 3-year average turnover rate in science and math positions is 136.2 FTE with 124.3 FTE in 2023-2024.

14. What salaries can program graduates expect to earn in South Dakota and nationally?

The expected salaries for program graduates are consistent with average SD teacher salaries.

15. Optional: Provide any additional evidence of regional demand for the program.
e.g. prospective student interest survey data, letters of support from employers, community needs...

See attached BHSU-SURF Collaborative Work Plan

Student Demand

16. Provide evidence of student completers/graduates at that degree level at peer institutions that offer the same/similar program using data obtained from IPEDS.

Choose programs not already listed in question 11. Use the most recent year available.

University Name	State	Program Name	Number of Degrees Conferred in Program	Total Number of Conferrals at Level (Undergrad or Grad)
USD	SD : South Dakota	MA ELED; STEM specialization	4	530
USD	SD : South Dakota	MA SEED; STEM specialization	3	530
Colorado School of Mines	CO : Colorado	MS STEM Education		525

17. What evidence suggests there is interest from prospective students for this program at the university?

In July 2025, facilitators from both CAMSE and SURF led the SD STEM Leadership Workshop in Pierre, SD for 28 K-12 educators. Kim Webber, Associate Director of CAMSE, administered a survey of participants to gauge interest in a Master's of STEM Education at BHSU. The survey results indicate the following:

- 80% of respondents (12/15) who do not have a Master's degree indicated they would be interested in pursuing a Master's in STEM Education at BHSU.
- Of participants who already earned a Master's degree, 80% (16/20) indicated they would have pursued a Master's in STEM Education from BHSU had it been available at the time.
- Multiple participants indicated they would pursue the degree even though they already earned a Master's degree.

The qualitative feedback included the following:

- "I have an MSCI through BHSU. My district has a lane for earning a 2nd Master's Degree (or Specialist or PhD). I would be interested in a Master's in STEM Ed."
- "I want to emphasize that I would be interested even though I have a Master's degree."
- "I can see several people in my building having interest in this program."
- "I would have loved to do a Masters in STEM."

Enrollment

18. Are students enrolling in this program expected to be new to the university or redirected from existing programs at the university?

Include the number of openings, as well as the percentage of growth when possible.

New to the university

19. Narrative Description of the preliminary estimates on annual enrollment in this program by year six

Include all students within the program, not just those new to the program.

The estimated enrollment for the program is a minimum of 10 new students per year through Year 6.