New Academic Degree Program
Full Proposal Application
South Dakota Board of Regents
Academic Affairs Forms

Internal Ticket ID: 23710
Created: 2/21/2025
Modified: 9/18/2025

Use this form to propose a new degree program. The Board of Regents, Executive Director, and/or their designees may request additional information about the proposal. After the university President approves the proposal, submit a signed copy to the Executive Director through the System Academic Officer (through the online submission process).

Note: Within the proposal, all references to external sources should be documented with a footnote (including web addresses where applicable).

University	DSU - Dakota State University
Degree	EDS : Specialist in Education
Name of Major	X999 : New Major Requested **Education and Technology**
Specialization Required?	Yes *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	8E : DSU Teacher Education/DEDU : Education
Planned CIP Code	11.0101
WICHE WRRGP Eligibility	Yes

Program Description

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

The Education Specialist (Ed.S.) in Education and Technology at Dakota State University is an advanced degree program designed to empower educators with the specialized skills needed to innovate in today's tech-driven educational environments. This program prepares graduates for influential roles in educational institutions, providing them with the knowledge and skills to help their students navigate future tech-focused career opportunities. The entire program is delivered online, allowing flexibility for working educators.

2. Does the university request any exceptions to any Board policy for this program?
*Explain any requests for exceptions to Board Policy. If not requesting any exceptions, indicate **"None."***

None

Strategic Impact

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

The proposed Ed.S. in Education in Education and Technology at DSU aligns closely with the university's mission, strategic plan, and academic priorities by expanding its robust program array in fields of education and technology. DSU's mission, as outlined in SDCL § 13-59 and the Board of Regents (BOR) Policy 1.2.2, emphasizes the institution's role as a leader in education and technology, focusing on both undergraduate and graduate education.

Alignment with Institutional Mission and Strategic Plan: The Education Specialist (Ed.S.) in Education and Technology is a natural extension of Dakota State University's (DSU) historical and evolving mission. Rooted in its founding in 1881 as a teacher training school, DSU has long prioritized the preparation of skilled educators for South Dakota's schools. As the university has grown into a leader in advanced technology programs, this new degree embodies the integration of its twin pillars: education and technology. The Ed.S. program directly reinforces DSU's mission by equipping highly qualified educators with the technological expertise needed to succeed in today's dynamic, tech-centered economy.

Relevance to DSU's Programs and Priorities: The Ed.S. in Education and Technology is a strategic initiative that supports DSU's ADVANCE 2027 plan. Under Pillar 1, "Enhance Student Success," the program empowers educators with advanced, real-world skills, increasing their employability in high-demand roles that bridge education and technology. This contributes to the university's goal of achieving 100% graduate employment within six months. Under Pillar 5, "Increase Sustainability and Resilience," the program is a key driver for growing the number of DSU graduates in computer science, cybersecurity, and artificial intelligence. It prepares future educators who can teach and lead in these disciplines, supporting South Dakota's long-term workforce development and sustainability goals.

Support for Research and Economic Development: This new program amplifies DSU's strength in interdisciplinary education, drawing upon established offerings in both the College of Education & Human Performance and the Beacom College of Computer and Cyber Sciences. It complements existing programs like the M.S. in Education in Education and Technology, and the M.S. and Ph.D. programs in Computer Science. By leveraging this academic infrastructure, the Ed.S. program nurtures an environment of collaboration, innovation, and applied research. In doing so, it contributes to regional economic development by fostering a pipeline of educators with the knowledge to advance technological literacy and innovation in their institutions and communities.

Connection to Academic Priorities: The Ed.S. program addresses two pressing academic needs for DSU. First, it targets workforce development by preparing educators capable of addressing the nationwide shortage of qualified teachers in educational technology and computer science. Second, it advances leadership in cyber education, empowering educators to lead initiatives such as the South Dakota Governor's Cyber Academy. By fostering instructional and leadership capacity in critical tech domains, the program strengthens DSU's role in shaping academic excellence and technological innovation throughout K-12 education systems.

The three specializations within the Ed.S. in Education and Technology (Educational Technology, Computer Science and Cyber Education, and Literacy Instructional Coaching) align with DSU's heritage mission of education and and its operational mission to prepare cyber-savvy graduates who are lifelong learners, problem solvers, innovators, and leaders to live lives of positive purpose and consequence. Educational Technology prepares teachers to integrate emerging tools into instruction, advancing innovation and student success across K–12 schools. Computer Science and Cyber Education leverages DSU's nationally recognized expertise in cybersecurity and complements existing programs in the Beacom College, aligning with state initiatives such as the Governor's Cyber Academy. Literacy Instructional Coaching, developed with South Dakota State University (SDSU), reflects DSU's teacher education legacy by preparing leaders in evidence-based literacy practices tied to statewide priorities in reading achievement. Together, these specializations expand DSU's program array and strengthen its academic leadership in areas essential to education, technology, and workforce development.

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

Not applicable.

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

The proposed Ed.S. in Education in Education and Technology aligns with the goals of the South Dakota Board of Regents (BOR) Strategic Plan (2022-2027) by supporting workforce development, fostering academic excellence, and driving economic growth through advanced, specialized education in high-demand fields. The program is tailored to meet the needs of schools, who are actively seeking graduates with expertise in both education and technology to navigate the evolving technological landscape.

Academic Excellence, Student Success, and Educational Attainment (Goal 3): The Ed.S. program directly contributes to student success and educational attainment because it provides a fully online pathway for educators to earn advanced credentials without disrupting their professional roles. This flexibility supports DSU's mission to serve working adults and contributes to increased graduate degree attainment, addressing the Board's concern over completion rates and the urgent need for a more highly educated workforce in South Dakota.

Workforce and Economic Development (Goal 4): One focus of the Ed.S. in Education and Technology is to prepare educators with the skills to teach computer science, cybersecurity, and artificial intelligence—fields that are central to both state and national workforce development goals. The program helps meet the SDBOR's objective to align new academic programs with South Dakota's workforce needs, as outlined in the Degree and Workforce Gap Analysis. Furthermore, the program supports economic development through DSU's strategic partnerships with organizations such as the National Security Agency and the Department of Homeland Security. These collaborations provide real-world, research-based learning opportunities that bolster the state's efforts to fuel a knowledge-based economy.

Access and Affordability (Goal 2): By offering the Ed.S. program entirely online, DSU is increasing access to advanced education for rural and non-traditional learners across South Dakota and beyond. This aligns with the BOR's strategic priority to create more affordable and accessible pathways to education through alternative delivery models and programs that serve working populations. Additionally, because the Ed.S. program is built upon existing infrastructure and courses, it does not require substantial new investments. This strategy contributes to affordability and efficient use of system resources—key pillars of the BOR's access and financial health goals.

Research and System Collaboration (Goals 4 & 5): The interdisciplinary nature of the program—linking the College of Education & Human Performance and the Beacom College of Computer and Cyber Sciences—encourages innovation and system-level collaboration, two values emphasized in the SDBOR's goals. It also supports DSU's expanding role in research partnerships and the application of educational technology in solving statewide challenges. Finally, by not requiring new faculty or facilities and focusing on scalable online delivery, the Ed.S. program contributes to financial sustainability and competitiveness within the Regental system—key goals under BOR's financial health objectives.

In summary, the Ed.S. in Education and Technology is a mission-aligned, future-ready initiative that embodies and operationalizes the goals of the South Dakota Board of Regents Strategic Plan through its focus on academic excellence, workforce development, affordability, accessibility, and innovation.

Program Summary

5. 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.

DSU will model the Ed.S. degree after the educational leadership model at USD, which allows the principal and superintendent courses to be taken at the MA or Ed.S. level, thus eliminating the prospective student's hesitation about "not wanting another master's degree." This proposal does not require any additional courses to be offered. Prospective students would simply choose to apply to either the 1) Master of Science in Education and Technology, or the 2) Educational Specialist in Education and Technology if they already possess a master's degree from another university.

6. 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	No	(n/a) (n/a)

	Yes/No	Location(s)	Intended Start Date
Off Campus Location	No		(n/a) (n/a)

	Yes/No	Delivery Method(s)	Intended Start Date
Distance Delivery	Yes	Online, asynchronously. Also, hybrid if needed.	Fall 2025

	Yes/No	Identify Institutions
Does another BOR institution already have authorization to offer the program online?	No	No institutions offer an Ed.S. in Education and Technology.

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

Asynchronous : Students are not required to attend the course at a specific time or location.

8. What are the student learning outcomes for this program?

Upon completion of the Ed.S. in Education and Technology program, students will demonstrate the following competencies from core courses:

a. Design a technology integration plan that aligns with institutional goals, demonstrates best practices in active learning, and includes a framework for evaluating the effectiveness of instructional technology.

b. Analyze educational technology research and apply findings to evaluate and refine instructional practices or technology tools used in professional settings.

9. For associate's and bachelor's degree proposals, identify the 3-5 AAC&U Essential Learning Outcomes that have been selected for this program.

Use the chart below to indicate the student learning outcomes that align to the selected ELOs (See BOR Policy 2.11 and Guideline 8.5).

Essential Learning Outcomes (AAC&U)	Student Learning Outcomes
Inquiry and Analysis	
Critical and Creative Thinking	
Information Literacy	
Teamwork	
Problem Solving	
Civic Knowledge and Engagement	
Intercultural Knowledge	
Ethical Reasoning	
Foundational Lifelong Learning Skills	
Integrative Learning	

10. Enter the number of credit hours required to graduate

Credit Hours	30

11.Complete the following tables to provide a degree program curriculum summary.

A. Table 1 –Total Program Degree Credit Hours

	Credit Hours In Program	
	Hours Per Requirement	**%Total Hours**
System General Education Requirements	0	
Subtotal - Gen Ed Requirements	0	%
Program Requirements		
Required Support Courses	0	
Major Requirements	30	
Major Electives		
Subtotal - Program Requirements	30	%
Free Electives	0	
Subtotal - Free Electives	0	%
Degree Total	30	%

**Board Policy 2:29 requires each baccalaureate level degree program to require 120 credit hours and each associate degree program to require 60 credit hours. Exceptions to this policy require documentation that programs must comply with specific standards established by external accreditation, licensure, or regulatory bodies or for other compelling reasons, and must receive approval by the Executive Director in consultation with the President of the Board of Regents.*

B. Table 2 – Insert Required Program Support Courses Impacting Other Programs (outside department). Do not include General Education courses.

*The individual curriculum tables should be included as a word document **attached** to the TDX ticket.*

C. Table 3 – Insert Major Requirements (within department)

*The individual curriculum tables should be included as a word document **attached** to the TDX ticket.*

D. Table 4 – Insert Major Electives

*The individual curriculum tables should be included as a word document **attached** to the TDX ticket.*

12. New Course Approval

New courses required to implement the new degree program may receive approval in conjunction with program approval or receive approval separately. Please check the appropriate statement:

No

Academic Quality

13. What peer institutions and current national standards will be referenced to develop the curriculum for this program?

Peer Institution: Regional and Competitive institutions. Include links to at least 3 comparable programs at peer institutions and links to national or accreditation standards, if any.

Technology at Dakota State University (DSU) will be developed in alignment with national standards and best practices in educational technology, referencing peer institutions with similar advanced education programs. The curriculum will adhere to national accreditation standards, including those set by the Council for the Accreditation of Educator Preparation (CAEP) (https://caepnet.org) and the International Society for Technology in Education (ISTE) (https://www.iste.org), ensuring that graduates meet high-quality benchmarks in instructional technology and digital learning leadership.

Comparable programs at peer institutions include:
1. University of Central Missouri (Education Specialist Degree in Educational Technology) - https://www.ucmo.edu/academics/programs/education-specialist/coe/educational-technology-and-library-science/educational-tech/educational-technology-eds/index.php
2. University of Maine (Online Ed.S. in Instructional Technology) - https://online.umaine.edu/online-education-specialist-in-instructional-technology/
3. Valdosta State University (Education Specialist (Ed.S.) in Instructional Technology) - https://www.valdosta.edu/academics/graduate-school/our-programs/education-specialist-in-instructional-technology.php

These institutions were selected based on their strong emphasis on integrating technology into education, regional relevance, and competitiveness in the field. Using IPEDS most recent data from 2022-2023, we searched for the following criteria: public institutions offering an Ed.S. degree in Education and Technology with undergraduate enrollment between 2,000 - 10,000 students. DSU's program will build upon these models while leveraging its established strengths in cybersecurity and technology education, ensuring that graduates are equipped to lead digital transformation in K-12 and higher education settings.

14. What program accreditation is available, if any?

The teacher education programs in DSU's College of Education & Human Performance are accredited by the South Dakota Department of Education (SD DOE) and the Council for the Accreditation of Educator Preparation (CAEP). However, program accreditation is only required when programs lead to certification.

15. Will the proposed program pursue accreditation or certifications?

No

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

None of the programs in the Ed.S. in Education and Technology lead to certification.

16. Did the university engage any developmental consultants to assist with the development of the curriculum? Did the university consult any professional or accrediting associations during the development of the curriculum? What were the contributions of the consultants and associations to the development of the curriculum?

Developmental consultants are experts in the discipline hired by the university to assist with the development of a new program, including content, courses, and experiences, etc. Universities are encouraged to discuss the selection of developmental consultants with Board staff.

No

17. Inclusion of High Impact Practices (HIP) across all undergraduate programs is a strategic priority of the Board of Regents to enhance academic quality and increase student engagement. For associate's and bachelor's degree proposals, which HIPs will faculty embed into the program?

Mark all that apply. To be considered as a HIP program, two or more should be selected and required in the program.

High Impact Practices	Included
Capstone courses and projects	
Collaborative assignments and projects	
Common intellectual experiences	
Diversity/global learning	
ePortfolios	
First year experiences	
Internships	
Learning communities	
Service learning, community-based learning	
Writing intensive courses	
Undergraduate research	

18. For associate's and bachelor's degree proposals, discuss how HIPs will be embedded into the program

Your discussion should provide examples and include whether the HIP is required or an optional component. It should also indicate at what point the experience is offered or required. (eg "students will be required to participate in an internship during their third year of enrollment in order to develop skills in…").

Student Success

This section outlines the university's plan to assess student achievement of the program learning outcomes.

19. Complete the table below to provide evidence of a preliminary assessment plan. Place an asterisk next to assessments that are national or state-level instruments.

Note: It is only necessary to indicate the summative assessment for each outcome, not the formative assessments used throughout the program.

Program Learning Outcome	Course	Summative Assessment
Design a technology integration plan that aligns with institutional goals, demonstrates best practices in active learning, and includes a framework for evaluating the effectiveness of instructional technology	CET 720: Leadership & Evaluation of Educational Technology	Final project, which includes a technology integration plan
Analyze educational technology research and apply findings to evaluate and refine instructional practices or technology tools used in professional settings.	CET 785: Research Methods in Educational Technology	Final project, which includes application of educational technologies

20. How will outcomes for graduates of the program be assessed?

Outcomes may include employment and placement rates, licensure examination pass rates, acceptance rates to graduate school, student or employer surveys, or other assessments of graduate outcomes.

Outcomes for graduates of the Education Specialist (Ed.S.) in Education and Technology program will be assessed through a combination of direct and indirect measures aimed at evaluating both academic achievement and post-graduation success. Summative assessments embedded within key courses will evaluate students' mastery of program learning outcomes, including their ability to integrate technology into educational practice, lead in cyber education initiatives, and apply advanced pedagogical strategies in K-12 and higher education settings. Post-graduation, DSU will track employment placement rates, aligning with the institutional goal of achieving 100% graduate employment within six months. Additionally, participation in professional development, leadership roles in cyber education (e.g., involvement with the Governor's Cyber Academy), and contributions to educational innovation will be monitored as indicators of long-term success. This comprehensive approach ensures the program remains aligned with workforce needs and educational best practices.

Duplication and Competition

21. 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.***

No other institution in the regental system offers an Ed.S. in Education and Technology.

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

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

22. Do any related programs exist at any non-Regental college or university within 150 miles of the university?
List those programs here:

Within a 100-mile radius of DSU, there are no non-Regental colleges or universities offering an Ed.S. in Education and Technology

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

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?

The Education Specialist (Ed.S.) in Education and Technology is designed to meet a growing demand among educators to gain advanced credentials to stay competitive in the educational field and advance their careers. In South Dakota, only 5.4% of teachers hold an Education Specialist degree, compared to the national average of 8.7%. (1) This program provides a pathway for educators, especially those already holding a Master of Science degree, to continue their professional development. With a strong focus on technology-infused education, the program equips teachers with cutting-edge skills to teach emerging technologies, and meet the increasing demands of tech-focused classrooms.

South Dakota faces an urgent need to prepare its workforce for the digital economy, and this begins with equipping educators to teach key subjects like computer science, cybersecurity, and artificial intelligence. The Governors Cyber Academy initiative is one example of the state's commitment to expanding cyber education, and the Ed.S. program at Dakota State University is designed to help meet the state's goal of preparing qualified teachers to lead in this area. By offering an advanced degree that specifically focuses on cyber education, DSU can help mitigate the shortage of qualified computer science educators, especially in rural areas, where access to specialized programs remains limited.

Moreover, South Dakota trails the national average in computer science education access. According to the Computer Science Teachers Association (CSTA), there is a pressing need for more teachers with credentials to teach computer science, particularly at the secondary level. The Ed.S. program will help address this gap by preparing educators with both the content knowledge and pedagogical skills required to lead effective computer science programs in K-12 schools. This aligns with the recommendations of the South Dakota Teacher Compensation Review Board, which emphasizes the importance of professional development for teacher retention and educational quality. (2)

The demand for computer science and cybersecurity professionals is skyrocketing both nationally and in South Dakota. According to the U.S. Bureau of Labor Statistics, jobs in computer science and related fields are projected to grow by 15% between 2021 and 2031—much faster than the average for all occupations. (3) In South Dakota, the Department of Labor has highlighted the need for a tech-savvy workforce to support the state’s growing cybersecurity, tech, and data-driven industries. (4)

This need begins in K-12 education, where students must be exposed to computer science concepts early on to build a strong foundation for future careers. However, a significant barrier to this is the lack of qualified

teachers. A 2022 survey by the Computer Science Teachers Association (CSTA) found that many schools nationwide face difficulties offering computer science courses due to a lack of qualified instructors. (5) This shortage is even more pronounced in rural states like South Dakota. The Ed.S. program will help to alleviate this shortage by producing educators who are not only equipped to teach computer science but also to serve as leaders in developing and implementing cyber education programs.

(1) National Center for Education Statistics. (2023). Characteristics of Public School Teachers. Condition of Education. U.S. Department of Education, Institute of Education Sciences. Retrieved April 17, 2023, from https://nces.ed.gov//programs/coe/indicator/clr.
(2) South Dakota Teacher Compensation Review Board (2021). Report to Governor Noem and the Legislature.
(3) U.S. Bureau of Labor Statistics. (2022). Occupational outlook handbook: Computer and information technology occupations. https://www.bls.gov/ooh/computer-and-information-technology/home.htm
(4) South Dakota Department of Labor and Regulation. (n.d.). Workforce needs in cybersecurity and tech industries. https://dlr.sd.gov/
5 Computer Science Teachers Association. (2022). 2022 State of computer science education report. https://www.csteachers.org/

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

23. 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.

The demand for educators with expertise in educational technology is growing both in South Dakota and nationally, driven by the increasing integration of technology in classrooms and the urgent need for qualified computer science and cybersecurity instructors.

According to the South Dakota Department of Labor & Regulation, the demand for instructional coordinators, a key occupation related to this field, is projected to grow by 8.3% from 2020 to 2030, with an estimated 90 annual openings due to growth and retirements. Additionally, demand for secondary school teachers, particularly in STEM fields, is expected to increase as South Dakota expands initiatives like the Governor's Cyber Academy to address workforce shortages in technology-driven sectors.

Nationally, data from O-Net Online and the U.S. Department of Labor's Projections Central indicate that instructional coordinators will see a 7% growth rate from 2022 to 2032, with approximately 19,500 job openings per year. The need for computer science educators is particularly high, as highlighted in the SDBOR Workforce and Degree Gap Analysis Report, which notes a significant shortage of qualified teachers in South Dakota's rural areas.

Technology at Dakota State University is designed to meet these workforce demands, preparing educators for leadership roles in digital learning and technology-infused instruction.

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

There is strong evidence of unfilled openings in educational technology and computer science education, both in South Dakota and nationally. According to the South Dakota Department of Labor & Regulation, there is a persistent shortage of qualified educators in STEM and technology-related fields, with instructional coordinator positions projected to grow by 8.3% from 2020 to 2030 and 90 annual openings statewide. The demand is particularly high in rural areas, where access to specialized programs remains limited.

Nationally, O-Net Online and the U.S. Department of Labor's Projections Central indicate that instructional coordinator positions will experience a 7% growth rate from 2022 to 2032, with 19,500 job openings per year. Additionally, the SDBOR Workforce and Degree Gap Analysis Report highlights a critical shortage of computer science and cybersecurity educators in South Dakota, with a growing need for K-12 teachers trained in digital learning and cyber education.

The shortage of educators trained in educational technology directly impacts the state's ability to prepare students for a technology-driven workforce. The proposed Education Specialist (Ed.S.) in Education and Technology at Dakota State University is designed to fill this gap by equipping educators with the advanced skills needed to integrate technology into teaching and learning, addressing both state and national workforce shortages.

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

Graduates of the Education Specialist (Ed.S.) in Education and Technology program at Dakota State University can expect competitive salaries in South Dakota and nationwide, depending on their roles and experience.

According to the South Dakota Department of Labor & Regulation, instructional coordinators—who develop

and implement technology-driven curricula—earn a median annual salary of $63,580 in the state. K-12 educators with advanced credentials in educational technology can expect to earn between $50,000 and $75,000, with higher salaries for specialists in computer science, cybersecurity, and instructional technology leadership.

Nationally, data from O-Net Online and the U.S. Department of Labor's Projections Central show that instructional coordinators earn a median annual salary of $70,160, with the top 10% earning over $101,090. Computer science and cybersecurity educators, a key focus of this program, can earn significantly more, with high school computer science teachers making between $60,000 and $90,000, depending on location and experience.

With South Dakota investing in initiatives like the Governor's Cyber Academy, educators with expertise in technology integration are in high demand. The Ed.S. in Education and Technology prepares graduates for leadership roles, positioning them for increased salary potential and career advancement in both education and industry-aligned roles.

26. 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...

The Education Specialist (EdS) in Education and Technology at Dakota State University is designed to meet the growing demand for highly skilled educators across South Dakota and the surrounding region. With three distinct specializations (Educational Technology, Computer Science and Cyber Education, and Literacy Instructional Coaching) the program responds directly to documented workforce shortages, state initiatives, and the need in critical areas of K–12 education. The Educational Technology specialization meets regional demand for teachers who can integrate digital tools into instruction and lead technology initiatives. Many South Dakota districts, especially in rural areas, lack trained personnel to maximize instructional technology. This specialization prepares educators to design engaging digital learning and to serve as leaders in technology integration, ensuring schools keep pace with state and national expectations. The Computer Science and Cyber Education specialization addresses the acute shortage of teachers in computer science and cybersecurity, highlighted in the South Dakota Board of Regents Workforce and Degree Gap Analysis Report. By aligning with the National Cybersecurity Teaching Academy curriculum, it equips educators to teach dual-credit courses through the Governors Cyber Academy and meet state endorsement requirements. The recent NCTA grant, funding full tuition for 20 teachers, demonstrates both strong demand and immediate workforce impact. The Literacy Instructional Coaching specialization, developed with South Dakota State University, responds to districts' needs for leaders trained in evidence-based literacy practices aligned with the Science of Reading. Schools across the state are prioritizing literacy improvement but often lack qualified coaches. This specialization prepares educators to mentor colleagues, lead initiatives, and strengthen K–12 literacy outcomes. Together, these specializations ensure the EdS in Education and Technology addresses South Dakota's most pressing workforce needs: improving literacy, filling computer science teacher shortages, and advancing digital integration. In doing so, the program prepares graduates to fill high need areas in South Dakota.

Student Demand

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

Peer Institution: Regional and Competitive institutions. 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)
University of Central Arkansas	AR : Arkansas	Ed.S. in Digital Age Teaching & Learning	13	194
University of West Georgia	GA : Georgia	Ed.S. in Education with a Major in Instructional Technology, Media, & Design	82	436
University of Maine	ME : Maine	Ed.S. in Instructional Technology	18	170

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

DSU's longstanding reputation in both teacher preparation and technology creates a natural pipeline of educators seeking advanced credentials in educational technology. Many graduates of DSU's Master of Science in Education (M.S.Ed.) in Education and Technology have expressed interest in continuing their education but lack a structured pathway beyond the master's level. The Ed.S. program directly addresses this gap by providing a highly relevant, advanced credential.

Additionally, the Governors Cyber Academy, a dual enrollment program at DSU, demonstrates significant student interest in technology-focused education. As more K-12 students engage in cybersecurity, computer science, and artificial intelligence coursework, schools need educators who are trained to teach these subjects. South Dakota teachers are recognizing this trend and actively seeking professional development opportunities to align with the state's workforce needs.

Last, DSU has received inquiries from current educators about specialized training in educational technology and cyber education. The online format of this program makes it highly accessible, further increasing its appeal to working professionals across South Dakota and beyond. This demand underscores the need for an Ed.S. pathway tailored to DSU's strengths.

Enrollment

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

The Education Specialist (Ed.S.) in Education and Technology at Dakota State University (DSU) is expected to attract a mix of new students and current DSU graduates seeking advanced credentials. The primary audience includes K-12 teachers in South Dakota and the surrounding region who want to teach dual credit computer science and cyber education courses. Many enrollees will be new to DSU, particularly educators who already hold a master's degree and are seeking specialized training in educational technology, cybersecurity, and instructional computing. The program is designed to support South Dakota's Governor's Cyber Academy initiative, which has significantly increased demand for qualified high school instructors in cyber-related fields. Additionally, some students will be redirected from DSU's existing Master of Science in Education (M.S.Ed.) in Educational Technology. The program is expected to grow, with an estimated 5-10 new students per year, contributing to an increase in DSU's graduate education enrollment. This steady growth aligns with the increasing demand for educators trained in computer science and cyber education, both regionally and nationally.

30. Complete the enrollment worksheet to provide an enrollment projection for the next six academic years

Worksheet Completed	Yes

31. What is the minimum number of students required in this program to break even, with respect to the budget?

The minimum number of students required for the Education Specialist (Ed.S.) in Education and Technology program to break even in terms of the budget is 0 students because all courses are already offered at the MSED level and most courses have not reached capacity; there is room in most courses for additional students. This threshold reflects the program's strategic design to utilize existing faculty, infrastructure, and course offerings, thereby minimizing additional costs. Because the Ed.S. leverages DSU's current resources within the College of Education & Human Performance and the Beacom College of Computer and Cyber Sciences, the break-even point remains low while maintaining academic quality and sustainability.

32. Discuss the assumptions informing your enrollment estimates.
(e.g. current enrollment and trends in similar programs, IPEDS data, recruitment strategies, partnerships)

The enrollment estimates for the Ed.S. in Education and Technology program are informed by several key assumptions:

1. Support of the Governor's Cyber Academy: The Ed.S. program is uniquely positioned to prepare educators for leadership roles within initiatives like the South Dakota Governor's Cyber Academy. As the Academy expands across the state, more school districts will require administrators and instructors with advanced training in cyber education, further boosting demand for the program.
2. Workforce Demand: There is a documented shortage of qualified computer science and educational technology teachers in South Dakota and nationally. This demand is expected to drive enrollment among educators aiming to qualify for leadership roles and high-need teaching positions, particularly in areas like cybersecurity and K-12 technology instruction.
3. Online Flexibility: The fully online delivery model increases access for working professionals, especially those in rural or underserved areas. This flexibility is assumed to broaden the geographic reach of the program and support steady enrollment growth.
4. Cost-Effectiveness: The program does not require significant new investment, making it affordable to implement and appealing to cost-conscious students. This financial accessibility is expected to positively influence enrollment interest.

These assumptions collectively support a projected steady growth in enrollment over the first six years of the program.

33. If projected program enrollment is not realized in year two, what actions is the university prepared to take?

If the program enrollment for the Ed.S. in Education and Technology is not realized in year two, Dakota State University is prepared to implement several responsive strategies to support sustainability and mitigate potential risks:

1. Targeted Marketing and Recruitment: DSU will enhance its outreach efforts by launching focused marketing campaigns aimed at current students, alumni, and K-12 educators across South Dakota and neighboring states. This includes collaboration with school districts, professional associations such as the School Administrators of South Dakota (SASD), and educational service agencies.
2. Expanded Partnerships: The university will strengthen existing relationships and seek new partnerships with state agencies, such as the South Dakota Department of Education and the Governor's Office, to promote the program as a preferred credential for teachers involved in technology integration and cyber education initiatives.
3. Program Review and Adjustment: The university will conduct a thorough review of the program's curriculum, delivery format, and cost structure. Adjustments will be made as needed to better align with market demands and student needs.

34. Discuss the marketing and recruitment plan for the program

Include information on partnerships and pipelines (e.g. articulation agreements with BOTE, collaboration with partner university, community partnerships).

The marketing and recruitment plan for the Ed.S. in Education and Technology at Dakota State University is strategically designed to leverage institutional strengths, existing partnerships, and market demand to attract qualified candidates across South Dakota and beyond.

Targeted Outreach and Digital Marketing: DSU will implement a multi-channel marketing campaign that includes digital advertising, social media outreach, email campaigns, and informational webinars targeted toward educators, school administrators, and graduate program alumni. Recruitment materials will emphasize the fully online format, career advancement opportunities, and the program's alignment with high-demand fields such as computer science, cybersecurity, and educational technology.

Alumni Engagement: Alumni networks and professional development contacts will also be used to share information about the new Ed.S. program.

Partnerships with K-12 and State Initiatives: DSU will collaborate closely with K-12 districts across the state, especially those involved with the Governor's Cyber Academy, positioning the Ed.S. program as an essential credential for teachers and administrators supporting cyber education initiatives. These partnerships will include direct outreach to superintendents, technology coordinators, and CTE directors.

Collaboration with BOTE and Regental System: DSU will pursue articulation opportunities with the South Dakota Board of Technical Education (BOTE) to create seamless transition pathways for educators holding graduate credits from technical institutions. Coordination with other regental universities will ensure that the Ed.S. complements, rather than duplicates, existing offerings.

Community and Agency Engagement: DSU's established partnerships with organizations such as the Department of Homeland Security, National Security Agency, and regional educational cooperatives will further strengthen program visibility. These relationships will support both recruitment and curriculum relevance, ensuring the program meets the evolving needs of the education and technology sectors.

This comprehensive marketing and recruitment plan aims to drive awareness, grow enrollment, and position the program as a premier offering for cyber-savvy educators.

Financial Health

35. Complete the budget worksheet to provide a budget projection for the next six academic years.

Worksheet Completed	Yes

Financial Health Summary						
	1st FYxx	2nd FYxx	3rd FYxx	4th FYxx	5th FYxx	6th FYxx
Tuition & Fee Revenues	31457	75497	106954	125829	125829	125829
Program Expenses						
NET	31457	75497	106954	125829	125829	125829
Other Supporting Revenues						
NET (Other)	31457	75497	106954	125829	125829	125829

36.Explain the amount and source(s) of any one-time and continuing investments in personnel, professional development, release time, time redirected from other assignments, instructional technology and software, other operation and maintenance expenses, facilities, etc., needed to implement the proposed major.
Address off-campus or distance delivery separately.

The proposal includes support for instructional computing tools, applications, and faculty travel for professional development. If enrollment projections are accurate, the university can accommodate the additional students within existing course offerings.

37. If new faculty are not requested, describe how existing faculty will be utilized and indicate whether this action will impact other existing programs.

Assuming enrollment estimates are correct, current course offerings will accommodate the increased student population.

38. Is the university requesting or intending to request permission for a new fee or to attach an existing fee to the program?.

Requesting Permission for Fee?	No
Explanation	

39. Use the table below to describe potential risks to the program's implementation over the next four years.
For each risk, identify the severity (low, medium, high), probability of occurrence (low, medium, high) and the institution's mitigation strategy for each risk.

Risk	Severity	Probability	Mitigation Strategy
Faculty workload limitations/faculty availability	Low	Low	Review departmental capacity and course rotation. Investigate possible roles for adjunct or emeritus faculty.
Low enrollment	Medium	Low	More selective acceptance. Review full-time or adjunct hiring options.
Overestimate interest in the program	Medium	Medium	Engage on expertise in marketing strategy.

External Review

40. If this proposal is for a graduate program, provide information below for at least five potential consultants who may be considered to conduct the external review.

Reviewer Name	Title	Institution
See note in #41		
/		
/		
/		
/		
/		

Additional Information

41. (Optional) Use this space to provide pertinent information not requested above that may assist the Board in understanding the proposal.

Dakota State University requests to waive the need to have a reviewer because the Ed.S. in Education and Technology will use existing courses in the university's MSEd Education and Technology and existing staffing, and it will require no significant new investments in faculty, infrastructure, or technology. This strategic use of current resources ensures that the program can be launched and sustained with minimal additional costs while maintaining high-quality education and support for students.

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An important aspect of the Ed.S. in Education and Technology proposal that underscores its strategic value is its unique positioning at the intersection of teacher preparation and advanced technology education—a niche not currently filled by any other program in the South Dakota regental system. This distinction allows Dakota State University to address a critical and growing need for educators who are not only instructional leaders but also fluent in emerging technologies such as cybersecurity, artificial intelligence, and computer science.

The program's alignment with the Governor's Cyber Academy and other state-level cyber initiatives positions it as a strategic lever for advancing South Dakota's broader education and workforce development goals. Graduates of this program will be ideally suited to serve as instructional leaders, technology integration specialists, and advocates for cyber education in K-12 and higher education settings.

Finally, the Ed.S. offers a flexible alternative for educators seeking advancement without pursuing a second master's degree, responding directly to feedback from potential students and partner districts across the state and region.

Approvals

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.*

President of the University	Date
	1/1/1970

Academic Affairs, Provost	Date
	1/1/1970

Finance and Administration, Vice President	Date
	9/18/2025

Stacy Krusemark

Enrollment Management, Vice President	Date
	9/4/2025

Amy S. Crissinger