Academic and Student Affairs
Consent

AGENDA ITEM: 5 – D (1)
DATE: December 11-12, 2024

****

SUBJECT
New Specialization Request – DSU – Health Informatics Specialization – BS in Computer Information Systems

CONTROLLING STATUTE, RULE, OR POLICY
BOR Policy 2.3.2 – New Programs, Program Modifications, and Inactivation/Termination

BACKGROUND / DISCUSSION
Dakota State University (DSU) requests authorization to offer a Health Informatics specialization within the BS in Computer Information Systems program. The proposed specialization develops health informatics skills for those students who have a high degree of interest in both computer information systems and healthcare. The specialization will offer a unique opportunity to develop workforce skillsets to manage and support electronic health records enterprise operations.

IMPACT AND RECOMMENDATION
DSU requests authorization to offer the specialization on campus and online. DSU is not requesting additional state resources to offer the program. No new courses will be required.

Board office staff recommends approval of the program.

ATTACHMENTS
Attachment I – New Specialization Request Form: DSU – Health Informatics – Computer Information Systems (BS)

****
DRAFT MOTION 20241211_5-D(1):
I move to authorize DSU to offer a Health Informatics specialization within the BS in Computer Information Systems program, as presented.

SOUTH DAKOTA BOARD OF REGENTS
ACADEMIC AFFAIRS FORMS

New Specialization

Use this form to propose a new specialization within an existing degree program. Specializations provide students with an alternative to the primary format of the major or it may be one of several tracks within a broad major. Specializations contain courses within the discipline(s) of the existing program. Specializations appear in the institutional catalog and on the transcript. Majors that offer specializations typically have one-third to two-thirds of the credits in common with the remaining course work fulfilling the requirements of the specialization(s) offered. 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 Chief Academic Officer. Only post the New Specialization Form to the university website for review by other universities after approval by the Executive Director and Chief Academic Officer.

UNIVERSITY:	DSU
TITLE OF PROPOSED SPECIALIZATION:	**Health Informatics**
NAME OF DEGREE PROGRAM IN WHICH SPECIALIZATION IS OFFERED:	**BS Computer Information Systems**
BANNER PROGRAM CODE:	**DCIS**
INTENDED DATE OF IMPLEMENTATION:	**5/19/2025**
PROPOSED CIP CODE:	**11.0401**
UNIVERSITY DEPARTMENT:	**College of Business and Information Systems**
BANNER DEPARTMENT CODE:	**DBIS**
UNIVERSITY DIVISION:	**Information Systems**
BANNER DIVISION CODE:	**DINFS**

☒ **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.

Rebecca S. Hoey	10/21/2024
Institutional Approval Signature	Date
President or Chief Academic Officer of the University	

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.**

This specialization develops health informatics skills for those students who have a high degree of interest in both computer information systems and healthcare.

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.*

The specialization will offer a unique opportunity to develop workforce skillsets to manage and support electronic health records enterprise operations. High school and college students interested in computers and healthcare will have a program option without having to double major. Inactivating the AS and BS in HIIM at DSU will leave a gap in the workforce that can be partially filled through this specialization.

With the rise of big data, the federally mandated transition to electronic health records, and the increase in the number of people with health insurance, there's a growing need to organize and analyze health information. The goal of the transition to digital technology is to provide a higher level of health care more efficiently. As a result, health informatics careers are burgeoning. These careers focus on how health information is captured, transmitted and used in a variety of health care settings. Most jobs will include gathering and analyzing data, designing workflows, measuring impact, educating and training end users, managing systems and managing discussions between end users and software developers.

The health informatics specialization in the BS in Computer Information Systems will be understood by major healthcare employers, such as Sanford Health, Avera, and Monument Health to provide graduates with the information systems skills as well as the knowledge of healthcare data and electronic health records needed to fill roles in their IT departments.

Employment projections data for medical and health services managers, 2023-33

Occupational Title	SOC Code	Employment, 2023	Projected Employment, 2033	Change, 2023-33		Employment by Industry
				Percent	Numeric	
Medical and health services managers	11-9111	562,700	723,300	29	160,600	Get data

SOURCE: U.S. Bureau of Labor Statistics, Employment Projections program

1

SOC Code	SOC Title	2022 Employment	2032 Employment	Numeric Change	Percent Change	Due to Exits	Due to Transfers	Due to Annual Change	Total Openings
	South Dakota Occupational Employment Projections 2022-2032							**Average Annual Openings**	
00-0000	Total, All Occupations	511,117	550,566	39,449	7.72%	26,934	32,556	3,945	63,435
11-9111	Medical and Health Services Managers	1,004	1,278	274	27.29%	32	47	27	106

2

Employment projections data for computer and information systems managers, 2023-33

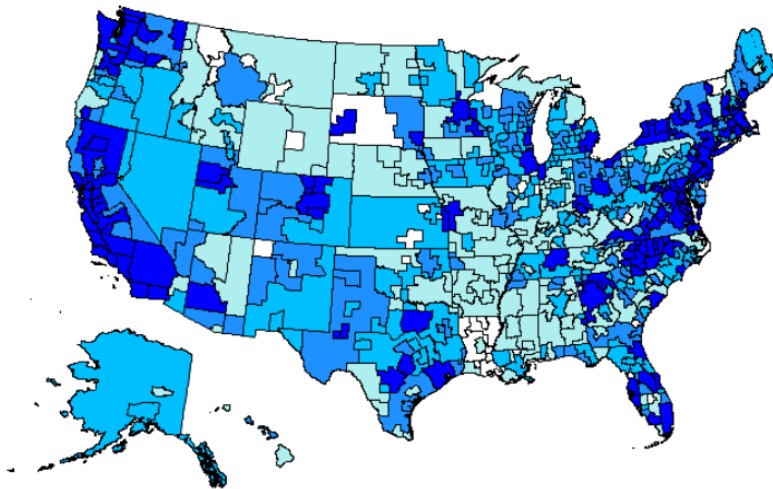| Occupational Title	SOC Code	Employment, 2023	Projected Employment, 2033	Change, 2023-33		Employment by Industry
				Percent	Numeric	
Computer and information systems managers	11-3021	613,500	720,400	17	106,900	Get data

SOURCE: U.S. Bureau of Labor Statistics, Employment Projections program

3

SOC Code	SOC Title	2022 Employment	2032 Employment	Numeric Change	Percent Change	Due to Exits	Due to Transfers	Due to Annual Change	Total Openings
	South Dakota Occupational Employment Projections 2022-2032							**Average Annual Openings**	
00-0000	Total, All Occupations	511,117	550,566	39,449	7.72%	26,934	32,556	3,945	63,435
11-3021	Computer and Information Systems Managers	245	285	40	16.33%	5	12	4	21

4

Annual mean wage of computer and information systems managers, by area, May 2023

Annual mean wage
- $88,480 - $130,930
- $131,000 - $143,090
- $143,290 - $155,430
- $155,740 - $255,830

Blank areas indicate data not available.

5

Sources:

1https://www.bls.gov/ooh/management/medical-and-health-services-managers.htm#tab-6
2https://dlr.sd.gov/lmic/menu_projections_occupation_statewide.aspx
3https://www.bls.gov/ooh/management/computer-and-information-systems-managers.htm#tab-6
4https://dlr.sd.gov/lmic/documents/projections/occupational_projections_2022_2032_statewide_south_dakota.xlsx
5https://www.bls.gov/oes/current/oes113021.htm#st

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

All students will complete the core course in the Bachelor of Computer Information Systems program. CSC 150 - Computer Science I is recommended over CIS 123 / CIS 130 in the CIS core. BIOL 106 Human Health and Biology (2 credits) and lab (1 credit) is recommended for Natural Science SGE for students in HI Specialization.

Prefix	Number	Course Title *(add or delete rows as needed)*	Credit Hours	New (yes, no)
Required Core			**66**	
ACCT	210	Principles of Accounting I	3	No
BADM	220	Business Statistics	3	No
BADM	344	Managerial Communications	3	No
BADM	350	Legal Environment of Business	3	No
BADM	360	Organization and Management	3	No
BADM	370	Marketing	3	No
CIS	251	Business Applications Programming	3	No
CIS	325	Management Information Systems	3	No
CIS	332	Structured Systems Analysis and Design	3	No
CIS	338	Project Management	3	No
CIS	427	Information Systems Planning and Management	3	No
CIS	484	Database Management Systems	3	No
CSC	105	Introduction to Computers	3	No
CSC	134	Introduction to Cyber	3	No
CSC	150	Computer Science I	3	No
CSC	163	Hardware, Virtualization, and Data Communication	3	No
CSC	285	Networking I	3	No
ECON	201	Principles of Microeconomics	3	No
CIS	206/207/ 208/210	Choose 3: Advanced Applications/Advanced Applications: Spreadsheets/ Advanced Applications: Database/ Quickbooks	3	No
Choose 9 credits from list (add HIM 130, HIM 265, and HIM 440)			9	No
Choose one specialization			18	
Electives			6	
Health Informatics Specialization			**18**	
HIM	150	Introduction to Digital Health Informatics & Information Management	3	No
HIM	225	Digital Health Information Systems	3	No
HIM	364	Healthcare Standards and Interoperability	3	No
HIM	380	Digital Health Data Analytics	3	No
HIM	444	Digital Health Technology	3	No
HIM	450	Digital Health Informatics & Information Management Research	3	No

Total number of hours required for completion of specialization	18
Total number of hours required for completion of major	66
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., 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*
On campus	Yes	**Fall 2025**

	Yes/No	*If Yes, list location(s)*	*Intended Start Date*
Off campus	No		

	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)	Yes	X15 online asynchronous	**Fall 2025**

    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*
Distance Delivery (online/other distance delivery methods)	No		Choose an item. Choose an item.

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.*