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| S:\Communications\Logos and photos\SDBORLogos\final_sdbor_webreadyBW_trans.gif | **SOUTH DAKOTA BOARD OF REGENTS**  ACADEMIC AFFAIRS FORMS |
| Intent to Plan for a New Program |
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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 request for a new program. The Board of Regents, 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 Chief Academic Officer. Only post the Intent to Plan to the university website for review by other universities after approval by the Executive Director and Chief Academic Officer.

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| **UNIVERSITY:** | DSU |
| **DEGREE(S) AND TITLE OF PROGRAM:** | Ph.D. in Information Systems |
| **INTENDED DATE OF IMPLEMENTATION:** | Fall 2018 |

**University Approval**

*To the Board of Regents and the Executive Director: I certify that I have read this intent to plan, that I believe it to be accurate, and that it has been evaluated and approved as provided by university policy.*

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|  |  | 3/22/2018 |
| President of the University |  | Date |

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1. **What is the general nature/purpose of the proposed program?**

DSU is proposing a change in the degree designation from the Doctor of Science (D.Sc.) to the Doctor of Philosophy (Ph.D.). DSU received authority to offer the D.Sc. in Information Systems at the April 2014 Board meeting. The Ph.D. would be a new degree to the university.

Information systems is an organized system for the collection, organization, storage and communication of information. Specifically, it is the study of complementary networks that people and organizations use to collect, filter, process, create and distribute data.

When DSU proposed this first doctoral program in Information Systems in 2005, the Board of Regents issued the D.Sc. rather than the traditional Ph.D. designation. In 2014, DSU received authorization from the Board to offer a second doctoral degree, the D.Sc. in Cyber Security. During our doctorate program review, we found the more traditional nomenclature (Ph.D.) to be more readily understandable and relevant to growing and increasing the reputation of the programs and the change in designation will more accurately reflect our current research focused programs. It is essential that DSU programming reflect current and evolving market awareness and because we have developed a national reputation for excellence in our existing doctoral programs, offering the Ph.D., the most recognizable doctoral degree in the field, helps DSU maintain that reputation. The Ph.D. degree serves us better in this highly competitive and demanding market. Preserving and expanding our niche or place depends on quality programming along with a quality reputation.

1. **What is the need for the proposed program (e.g., Regental system need, institutional need, workforce need, etc.)? What is the expected demand for graduates nationally and in South Dakota (provide data and examples; data sources may include but are not limited to the South Dakota Department of Labor, the US Bureau of Labor Statistics, Regental system dashboards, etc.)?**

The College of Business and Information Systems at Dakota State University seeks to change the degree designation from D.Sc. to Ph.D. for the following reasons:

1. The Ph.D. more accurately reflects the nature of the DSU programs as research focused and dissertation driven.
2. The Ph.D. is accepted as the terminal academic doctoral degree in the U.S. In terms of student community and issues of recognizability and legitimacy, the Ph.D. has a higher reputation simply because it is known in nearly all parts of the world.
3. The College of Business and Information Systems feels awarding the Ph.D. will better serve our students who work in trans-national and higher education settings.

Employment demand for occupations requiring expertise in information systems remains high. For example, positions in computer and information technology occupations are projected to grow 13% nationally from 2016 to 2026, faster than the average for all occupations.[[1]](#footnote-1) More specifically, computer and information research scientists trained at the master’s level or above are expected to grow by 19%.[[2]](#footnote-2)

1. **How would the proposed program benefit students?**

The D.Sc. in Information Systems provides learners who possess a solid foundation in computer science, information systems (IS) or information technology (IT) (BS or MS) an opportunity to pair their computer science emphasis with research in the many forms of IT/IS. In this program students learn how to take leadership roles in technology environments. Students are pushed to think in innovative and creative ways about IT/IS issues and are prepared for roles as researchers and educators as well as a variety of technology leadership roles in both government and private organizations. Upon graduation, students are well prepared to lead, innovate and support IT/IS initiatives. Students have specializations in healthcare, big data & analytics, or information assurance and are prepared to lead organizations into the future.

1. **How does the proposed program relate to the university’s mission as provided in South Dakota Statute and Board of Regents Policy, and to the current Board of Regents Strategic Plan 2014-2020?**[[3]](#footnote-3)

The Legislature established Dakota State University as an institution specializing in programs in computer management, computer information systems, and other related undergraduate and graduate programs as outlined in SDCL 13-59-2.2. The Business and Information Systems provides complete realization of this mission in its programs related to Information Systems. The Board implemented SDCL 13-59-2.2 by authorizing undergraduate and graduate programs that are technology-infused and promote excellence in teaching and learning. These programs support research, scholarly and creative activities and provide service to the State of South Dakota and the region.

This request to change the name from D.Sc. to Ph.D. relies on the same logic: the program is a strong, integrated and effective culmination degree consistent with the mandated mission of the university and the College of Business and Information Systems.

The transition to the Ph.D. from the D.Sc. also recognizes the Board’s Strategic Plan 2014-2020, including goals to improve academic quality and to graduate more students from STEM fields by offering the most recognizable degree in the field.

1. **Do any related programs exist at other public universities in South Dakota? If a related program already exists, explain the key differences between the existing programs and the proposed program, as well as the perceived need for adding the proposed new program. Would approval of the proposed new program create opportunities to collaborate with other South Dakota public universities?**[[4]](#footnote-4)*If there are no related programs within the Regental system, enter “None.”*

None

1. **Do related programs exist at public colleges and universities in Minnesota, North Dakota, Montana, and/or Wyoming?** *If a related program exists, enter the name of the institution and the title of the program; if no related program exists, enter “None” for that state. Add additional lines if there are more than two such programs in a state listed.*[[5]](#footnote-5)

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|  | **Institution** | **Program Title** |
| ***Minnesota*** | University of MN | Ph.D. in Information and Decision Sciences |
| ***North Dakota*** | None |  |
| ***Montana*** | None |  |
| ***Wyoming*** | None |  |

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

Students enrolling in this program are new to the university in most cases, although some MS students from the College of Business and Information Systems and the Beacom College of Computer and Cyber Sciences apply to the doctorate program. Students in the existing D.Sc. program will transition to the new Ph.D. program upon approval of the degree.

1. **What are the university’s expectations/estimates for enrollment in the program through the first five years? What are the university’s expectations/estimates for the annual number of graduates from the program after the first five years? Provide an explanation of the methodology the university used in developing these estimates.**

Recent enrollment numbers show strong interest and high yield in the doctorate program in the College of Business and Information Systems. Yield is the proportion of students who enrolled divided by those who are accepted.  The higher the yield, the higher the desirability of a program/school.  It is a metric of a school’s selectivity.

**D.Sc. in Information Systems:**

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| --- | --- | --- | --- | --- | --- |
| 2017 | 72 applicants | 22 enrolled | 28 accepted | 39% acceptance | 79% yield |
| 2016 | 70 applicants | 13 enrolled | 21 accepted | 30% acceptance | 72% yield |
| 2015 | 83 applicants | 16 enrolled | 28 accepted | 34% acceptance | 57% yield |

Fall 2017, we admitted 22 students and we anticipate an incoming group of approximately 20 students on an annual basis. Fall census data showed an enrollment of 73 students in this program.

1. **Complete the following charts to indicate if the university intends to seek 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 program through distance technology (e.g., as an on-line program)?**[[6]](#footnote-6)

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|  | **Yes/No** | ***Intended Start Date*** |
| **On campus** | Yes | **Fall 2018** |

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

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|  | **Yes/No** | ***If Yes, identify delivery methods[[7]](#footnote-7)*** | ***Intended Start Date*** |
| **Distance Delivery (online/other distance delivery methods)** | Yes | This program is now delivered both F2F and Online | **Fall 2018** |

1. **What are the university’s plans for obtaining the resources needed to implement the program?** *Indicate “yes” or “no” in the columns below*.

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|  | Development/Start-up | Long-term Operation |
| Reallocate existing resources | No | No |
| Apply for external resources[[8]](#footnote-8) | No | No |
| Ask Board to seek new State resources[[9]](#footnote-9) | No | No |
| Ask Board to approve a new or increased student fee | No | No |

Because we are not asking for any curriculum changes, the resources we have now are adequate.

1. **Curriculum Example: Provide (as Appendix A) the curriculum of a similar program at another college or university.** *The Appendix should include required and elective courses in the program. Catalog pages or web materials are acceptable for inclusion*. **Identify the college or university and explain why the selected program is a model for the program under development**.

Not Applicable

1. **Additional Information:** *Additional information is optional. Use this space to provide information not specifically requested above. Delete this item it is not used.*

In 2018, ranked by Best Value Schools as #1 Best Online doctorate in information system assurance & security programs, <https://www.bestvalueschools.com/rankings/online-phd-info-systems-assurance-security/>

1. Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Computer and Information Technology Occupations,   
   on the Internet at <https://www.bls.gov/ooh/computer-and-information-technology/home.htm>  (visited *January 05, 2018*). [↑](#footnote-ref-1)
2. Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Computer and Information Research Scientists, on the Internet at <https://www.bls.gov/ooh/computer-and-information-technology/computer-and-information-research-scientists.htm> (visited *December 27, 2017*). [↑](#footnote-ref-2)
3. South Dakota statutes regarding university mission are located in SDCL 13-57 through 13-60; Board of Regents policies regarding university mission are located in Board Policies 1:10:1 through 1:10:6. The Strategic Plan 2014-2020 is available from <https://www.sdbor.edu/the-board/agendaitems/Documents/2014/October/16_BOR1014.pdf>. [↑](#footnote-ref-3)
4. Lists of existing system programs are available through university websites and the RIS Reporting: Academic Reports database available from <http://apps.sdbor.edu/ris-reporting/AcademicProgramReports.htm>. [↑](#footnote-ref-4)
5. This question addresses opportunities available through Minnesota Reciprocity and WICHE programs such as the Western Undergraduate Exchange and Western Regional Graduate Program in adjacent states. List only programs at the same degree level as the proposed program. For example, if the proposed program is a baccalaureate major, then list only related baccalaureate majors in the other states and do not include associate or graduate programs. [↑](#footnote-ref-5)
6. The Higher Learning Commission (HLC) and Board of Regents policy requires approval for a university to offer programs off-campus and through distance delivery. [↑](#footnote-ref-6)
7. Delivery methods are defined in [AAC Guideline 5.5](https://www.sdbor.edu/administrative-offices/academics/academic-affairs-guidelines/Documents/5_Guidelines/5_5_Guideline.pdf). [↑](#footnote-ref-7)
8. If checking this box, please provide examples of the external funding sites identified [↑](#footnote-ref-8)
9. Note that requesting the Board to seek new State resources may require additional planning and is dependent upon the Board taking action to make the funding request part of their budget priorities. Universities intending to ask the Board for new State resources for a program should contact the Board office prior to submitting the intent to plan. [↑](#footnote-ref-9)