Dakota State University:

Dakota State University was founded in 1881 as Dakota State Normal School, the first teacher education institution in Dakota Territory. Its mission was to recruit and educate young adults to become teachers for the growing communities in the region.

Over the decades, the university's programs of study have evolved. In 1888, commercial studies were added, the forerunner to today's majors in the College of Business and Information Systems. Humanities courses were added throughout the years as well, now gathered under the College of Arts & Sciences. Future elementary, secondary, and special education teachers continue to study in the College of Education.

Along with these program additions, there were several name changes, including Dakota Normal School, Eastern State Teachers College, General Beadle State College, and Dakota State College.

The biggest change for the university came in 1984, when the South Dakota Legislature and the South Dakota Board of Regents changed the mission of Dakota State to include and emphasize computer technology and information systems. The purpose of this legislative action was two-fold: it addressed economic development in the state, particularly in reference to the growing banking and financial services industry; it also added a technology focus to all program offerings.

To fulfill this mission, DSU faculty developed leading-edge computer technology and information systems degree programs. Several program developments led to new graduate degree programs, so on July 1, 1989, the South Dakota Legislature changed the name to Dakota State University, to reflect the expansion of the university's degree options.

Dakota State University's innovative curriculum led to national recognition. In 2004, DSU was one of ten colleges in the country named a National Center of Academic Excellence (CAE) in Information Assurance Education by the National Security Agency. The university now has CAE distinctions in cyber defense education, cyber defense research, cyber operations, and is a cyber defense consultative regional resource center.

Additionally, DSU is one of a few universities in the country that partners with the NSA National Cryptologic School, through which NSA military and civilian employees are able finish their associate, undergraduate, and graduate degrees in cyber operations. Dakota State also has articulation agreements with the Community College of the Air Force; students can earn an Associate of Applied Science degree on their way to a Bachelor of Science degree in Cyber Leadership and Intelligence, or take general education courses.

DSU has also focused on applying computer technology to traditional academic fields, leading to the development of unique, technology-focused degree programs in business, English, and art, to name a few. Traditional majors in the College of Business and Information Systems, such as accounting and finance, are infused with technology; new technology-focused business programs of study include computer information systems and health information administration. English students can major in English for New Media; fine arts students major in

one of four specializations under the Digital Arts and Design degree, such as digital sound design or production animation. All of DSU's education majors receive a technology endorsement with their degree.

To increase student access to the technology-centric programming, Dakota State University was the first university in the state -- and one of the few in the country -- to implement a wireless mobile computing initiative by providing all students with computer notebooks in 2004. This Wireless Mobile Computing Initiative continues today: all on-campus students receive a laptop when they begin their studies.

For 18 of the last 20 years, Dakota State University has seen steady increases in enrollment. Many are on-campus students, but to reach broader audiences, including non-traditional, rural, and international students, the institution began offering distance course options in 1989. Many undergraduate programs and all DSU's nine graduate programs are now offered online.

Whether on campus or online, graduates of DSU programs enjoy enviable status in the national marketplace, with 100 percent placement rate in many of our programs.

From its start as a small college on the prairie, Dakota State University is on an inspirational and world-changing trajectory to be a forward-thinking, innovative, technology-fueled organization. In the future, Dakota State will continue to foster true innovation and active engagement in teaching, learning, scholarship, research, and service.

About DSU:

- DSU Website
- Office of the President, Presidents Cabinet, Academic Council, Academic Leadership
- <u>Academic Programs</u>
- Research

In pursuing this state mandated mission in computing and informational sciences, enrollment at DSU shows 1555 STEM students, or approximately 66.7% of student population. Enrollment at DSU in STEM fields show just how committed the institution is to its mission and encourages us to maintain a steady focus on these fields in our mission-driven decision making. Our mission specificity and U.S. workforce data suggests large increases in workforce demand for Computer Science and cyber security professionals. We have responded through our DSU Rising Initiatives, which include but are not limited to:

 The Aug. 20, 2017 opening of the Beacom Institute (the first LEED version 4 building in South Dakota) dedicated to computing and cyber sciences instruction including a Computer game design suite, Animation lab, Network and security administration lab all in its 31,000 Sq. ft. imprint.

- 2) The Fall 2019, opening of the <u>Madison Cyber Labs</u>, a research and development facility with hub of cybersecurity and cyber operations expertise, education, applied research and economic development.
- 3) Collaborations with prominent STEM-related federal agencies to promote cyber science education, research and workforce development

Beacom College of Computer and Cyber Sciences:

The mission of The Beacom College of Computer and Cyber Sciences is to educate and prepare students to be lifelong learners and professionals in Computer and Cyber Sciences. We seek to challenge students to develop skills in computer and cyber sciences, to think logically, and to make sound decisions through our four major academic programs: Computer Game Design, Computer Science, Cyber Operations, and Network and Security Administration.

The College offers Ph.D. in Cyber Operations and in Cyber Defense; Master's degrees in computer science and in Cyber Defense; and baccalaureate degrees in Computer Game Design, Computer Science, Cyber Operations and Network and Security Administration. Also, the college offers an Associate of Science degree in Network and Security Administration and Software Development which articulates with the related four-year degree. DSU has a fast track program for certain majors. Students who might be eligible should contact the Dean of the College. In addition to course work in the academic setting, the College provides opportunities for students to learn through work and consulting experience. Internships and supervised professional practices are available in most programs.

The enrollment in the Beacom has seen a sustained growth in all programs in the last five years:

| Year | Beacom | |
|---------------|--------|--|
| 2015-16 | | |
| Graduate | 446 | |
| Undergraduate | 4743 | |
| TOTAL | 5189 | |
| 2016-17 | | |
| Graduate | 469 | |
| Undergraduate | 4318 | |
| TOTAL | 4787 | |
| 2017-18 | | |
| Graduate | 538 | |
| Undergraduate | 5217 | |
| TOTAL | 5755 | |
| 2018-19 | | |
| Graduate | 695 | |
| Undergraduate | 5672 | |

| TOTAL | 6367 | |
|---------------|------|--|
| 20119-20 | | |
| Graduate | 719 | |
| Undergraduate | 5958 | |
| TOTAL | 6677 | |

Highlights:

| 1. Across last five years: Undergrad enrol | lment went from 4743 to 5958, an increase |
|---|---|
| of 25.6%, about 5.1% per year | |
| 2. Across last five years, graduate enrollm | nent went from 446 to 719, an increase |
| of 61.2%, about 12.2% per year | |
| 3. Across last five years, TOTAL enrollmen | nt in the Beacom College went from 5189 to 6677 |
| an increase of 28.7%, about 5.7% per ye | ear |
| 4. Of the 28,775 students enrolled in the I | Beacom across the last five years, 11,962, or |
| 41.5% were students in online courses | |
| 5. Across the last five years, 37.4% of und | ergraduate enrollments were online and |
| 79.4% of the graduate enrollments wer | e online |

About the Beacom:

College Website

<u>Undergraduate</u>

Bachelor

- Computer Game Design (BS)
- Computer Science (BS)
- Cyber Operations (BS)
- Network and Security Administration (BS)

Associate

- Network and Security Administration (AS)
- Software Development (AS)
- Web Development (AS)

Certificate

- <u>Cybersecurity Certificate</u>
- <u>High-Performance and Research Computing Certificate</u>
- Network and Telecommunications Administration Certificate
- Network Services Certificate
- Object Oriented Programming Certificate
- Software Development Certificate

Graduate

Doctoral

- <u>Doctor of Philosophy in Cyber Operations</u>
- <u>Doctor of Philosophy in Cyber Defense</u>

Master

- Master of Science in Computer Science
- Master of Science in Cyber Defense

Certificate

- Banking Security Graduate Certificate
- Ethical Hacking Graduate Certificate

Learning Outcomes: