



HELLO FROM THE COLLEGE OF BIS

A MESSAGE FROM THE DEAN

Greetings from the College of Business and Information Systems,

If you look at DSU's homepage on the website, you will see that "At Dakota State University, we are rising." And what a great time we are having as we do that!

One of the meanings of rising is to succeed in not being limited or constrained, and that is a definition that the College of Business and Information Systems has taken to heart. We explore new ideas and ways of doing things to help prepare students who are critical thinkers, innovators, and lifelong learners. I was so gratified to hear a business person working with our students say "DSU students are fearless" meaning they are willing to utilize technologies and take on new tasks.

This Fall we welcomed two new faculty members to the College of BIS, although they are not new to academia. Dr. Akemi Chatfield will be teaching courses in information systems and Dr. Brenda Merkel's courses will be in business. Both of them will have responsibility for courses at both the graduate and undergraduate levels. In addition, we were pleased to have Andrew Behrens begin a tenure-track role as assistant professor. He has been an instructor in the College of BIS, so he is not new to our team. Please visit DSU's online directory to learn more about them, as well as others in the faculty and staff of the College of BIS.

Each time that we prepare a College of BIS Newsletter, I am reminded of the many ways that our faculty, staff, students, and alumni contribute to DSU's upward trajectory into the future. This newsletter is no exception to that, and I hope you will enjoy reading it. Your comments, questions, and suggestions are always welcome.



Sincerely,

Dr. Dorine Bennett

Dr. Dorine Bennett

STUDENTS & ALUMNI IN THE NEWS



Carper Family

The Carper family were selected to be honorary captains for the 2022 Ag Bowl football game. Cody Carper, who graduated with a degree in marketing, as well as others in the Carper family are College of BIS alumnus.

<https://www.amazingmadison.com/local-news/carpers-named-honorary-captains-for-2022-ag-bowl>

Zeng & Waldman at Midwest Cybersecurity Summit

Professor David Zeng and Alumni Jon Waldman were panelists for the Midwest Cybersecurity Summit on August 2nd, 2022. Their session was called “Creating Actionable Data-Driven Business Decisions with Artificial Intelligence and Machine Learning”. Around the globe, many industries have adopted digital innovations to understand and meet dynamic business and consumer needs. As businesses and organizations adopt AI and ML to make data-driven decisions, what challenges will they have? How will they secure and protect their data? In this panel discussion, the audience learned how to gain insights from their data to make business decisions, how AI can provide actionable insights to improve their bottom-line, and how to integrate cybersecurity into their business practices.

<https://www.brookingschamber.org/events/details/midwest-cyber-security-summit-16369?calendarMonth=2022-08-01>

Alumni Featured in Article

College of BIS health information management alumni, Brittney Luze and Stacy Reck, were included in a recent article about Avera Health’s Clinical Intelligence (CI) team. The CI team includes people who work to solve problems and make patient experiences better and to help improve efficiency, from surgery to billing and coding.

<https://www.avera.org/balance/mission/clinical-intelligence-super-heroes-help-patients-save-time-money/>



Graduates Passed the Test

The College of BIS is proud of the DSU health information management graduates who took the American Health Information Management Association (AHIMA) RHIT or RHIA certification exams from August 1, 2021 through July 31, 2022! During that year, all DSU testers passed! Congratulations!



FACULTY NEWS



Noteboom Awarded

In June, Dr. Cherie Noteboom was awarded the Distinguished member - Cum Laude designation by AIS which is our IS Professional Organization.

The Association for Information Systems (AIS) serves society through the advancement of knowledge and the promotion of excellence in the practice and study of information systems. AIS is the premier professional association for individuals and organizations who lead the research, teaching, practice, and study of information systems worldwide. <https://aisnet.org/page/AboutAIS>

The AIS Distinguished Member program recognizes members who have made a significant impact on the association. The Distinguished Member - Cum Laude designation is for those who exceed the requirement by holding continuous AIS membership for at least 10 years, service in a leadership role in AIS or AIS-related activity and have been published in at least four publications in an AIS or AIS-affiliated journal.



El-Gayar Participated in Executive Committee

Dr. Omar El-Gayar participated in ABET's Executive Committee 2022 meeting as an ABET Commissioner. ABET is a nonprofit, non-governmental organization that accredits college and university programs in the disciplines of applied and natural science, computing, engineering and engineering technology at the associate, bachelor's and master's degree levels. Dr. El-Gayar is a commissioner for the Computing Accreditation Commission, and ABET's Executive Committee is responsible to make accreditation decisions, approve new and revised criteria and a host of other administrative decisions.

PROGRAM NEWS



Innovation Corps (I-Corps) grant

Dakota State is one of seven regional institutions named as a recipient of a \$14 million Innovation Corps (I-Corps) grant. The consortium includes North Dakota State University (lead), South Dakota School of Mines and Technology, DSU, South Dakota State University, University of North Dakota, University of Wyoming, and University of Nebraska-Omaha. Dakota State's portion will be \$793,692 for the five-years. At Dakota State, Katherine Cota, Director of Economic Development, will serve as DSU's institutional lead; Dr. Michael Roach will be the faculty lead. For more information:

<https://dsu.edu/news/2022/09/dsu-receives-nsf-funds.html>

Computer Information Systems

Computer Information Systems (CIS) focuses on solving business problems using practical applications of technology. The CIS major in the College of BIS has three specializations – business analytics, application development, and project management. In the project management specialization, students learn how to plan, develop, and execute information systems and technology projects in the business domain. They develop skills in planning, budgeting, scheduling, developing effective strategies, managing stakeholders, and resource management.

<https://dsu.edu/news/2022/11/cis-project-management%20.html>

Health Informatics and Information Management

SiouxFalls.Business published a story on our health informatics and information management programs.

<https://www.siouxfalls.business/technology-data-demand-drive-new-approaches-to-health-informatics-education/>.

The Health Information Management program began at DSU in 1975 with an associate degree and has grown to include new content and majors. In 2022 the program name changed to Health Informatics and Information Management (HIIM). Dakota State University has been recognized for providing some of the nation's top online healthcare programs.

- » Best Online Health Informatics Degrees
- » Best Online Health Information Management Degrees



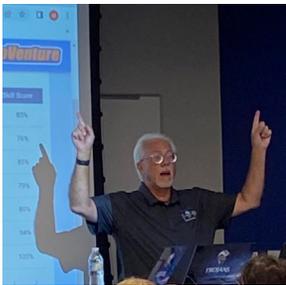


OUTREACH

Dakota Dreams Camp

DSU hosted a Dakota Dreams Camp with fifty 7th and 8th grade students in July. They learned about career opportunities and programs from all four of the DSU colleges, toured businesses, visited Mitchell Technical College, and had lots of fun recreational activities! Dr. Cherie Noteboom represented the information systems area of the College of BIS, and Dr. Mike Roach, Dr. Wendy Simmermon, and Dr. Deb Tech represented the business area. Julie Wulf Plimpton represented the health information management area.

<https://www.amazingmadison.com/local-news/dsu-hosting-dakota-dreams-career-exploration-camp/>



Wulf Plimpton Attended Scrubs Camp

Julie Wulf Plimpton attended Watertown's Scrubs Camp in September to help share information about DSU's HIM Programs. Scrubs Camps are a one-day, hands-on experience where 9th-12th grade students learn more about health careers. Camps are held throughout the state and each one is tailored to the interests of the students in that area.



FUN ACTIVITIES



Attending Area Parades

The HIIM faculty had an entry in several area homecoming parades, including Beresford, Tea, Hurley and Viborg, to help increase awareness of the program offered at DSU. They were also part of DSU's homecoming parade.

Friendly Competition

The College of BIS participated in holiday competitions held on the DSU campus in December. Although our entries were not winners, the faculty and staff did a great job!

For the gingerbread contest, the College of BIS provided a gingerbread "ship" created by members of the business faculty, and the Center for the Advancement of Health Information Management (CAHIM) MadLab, whose director is BIS's Dr. Patti Brooks, represented healthcare with an electronic health record (EHR) computer.



Giving Day and Day of Service

September 22nd was a good day at DSU as we had the Day of Service and the #RISEUP A Day of Giving happenings.

For Day of Service, faculty, staff, and students volunteered for various projects around campus and the community, and classes were canceled in the afternoon to allow people to do service. A number of students from BIS participated, as well our dean, Dorine Bennett, faculty members Omar El-Gayar and Andy Behrens, and our professional advisor, Christine Souter, who volunteered for projects at Lake Herman State Park, the Courtyard on the DSU campus, Inter-Lakes Community Action Partnership (ICAP) and the Madison Public Library.

Day of Giving was an online 12-hour fundraising event connecting and uniting all to support our great institution through investment in Dakota State's students. The faculty, staff, students and friends of the College of Business and Information Systems recognized the importance of scholarships to positively impact our students and participated in this special event with \$6850 raised in that period of time. Thank you to the fundraisers and generous donors!





CONFERENCES & RESEARCH

AMCIS 2022

The 28th Americas Conference on Information Systems (AMCIS) was held August 10-14, 2022, in Minneapolis, MN. AMCIS 2022 brought together academics and industry professionals around the world to exchange knowledge related to diverse facets of information systems research and practice. It provides exciting opportunities for participation, collaboration, and dialogue related to the conference theme “Innovative Research Informing Practice.” A number of College of BIS faculty were involved in making presentations. The publications are available at the AIS eLibrary at <https://aisel.laisnet.org/>

These presentations were for the Healthcare Informatics and Health Info Technology special interest group portion of the conference.

A Design Theory for Intelligent Clinical Decision Support

Authors: Andrew J. Behrens, Jun Liu, Cherie Bakker Noteboom

Drivers and Challenges of Wearable Devices Use: Content

Analysis of Online Users Reviews

Authors: Ahmed Said Elnoshokaty, Omar El-Gayar, Abdullah Wahbeh, Mohammad Aref Al-Ramahi, Tareq Nasrallah

This paper was presented for the Information Security and Privacy special interest group portion of the conference.

Reconceptualizing Knowledge Based Authentication for

Augmented and Virtual Reality Contexts

Authors: Christopher Kreider, Omar El-Gayar

This research was presented for the Meta Research in Information Systems special interest group.

A Decade in Review: Aligning Information Systems Security (ISS) with the NICE framework

Authors: Christopher Kreider, Omar El-Gayar

The special interest group for this presentation was Data Science and Analytics for Decision Support.

Privacy and Security Concerns Associated with mHealth

Technologies: A Computational Social Science Approach

Authors: Damion R. Mitchell, Omar El-Gayar

This presentation was for the Artificial Intelligence and Semantic Technologies for Intelligent Systems special interest group at the conference. This paper received an award for “Best AMCIS 2022 Top 25% Complete Papers”!

Towards a Performance-explainability-fairness Framework for Benchmarking ML Models

Authors: Shuvro Chakrobartty, Omar El-Gayar

In addition, College of BIS faculty contributed with TREO presentations for the conference. Technology Research, Education, and Opinion (TREO) sessions will provide attendees a platform to present their research ideas, education papers, or opinion papers that cover any area of information systems (IS) or information technology (IT) and get feedback from session attendees.

Interoperability in Healthcare using FHIR: A Systematic Literature Review

Authors: Madhu Gottumukkala, Omar El-Gayar, Cherie Bakker Noteboom

Interoperability and Digital Health Platform: A Design Science Research

Authors: Madhu Gottumukkala, Omar El-Gayar, Cherie Bakker Noteboom

Security Vulnerability Impact on Open Source: A Social Media Exploration

Authors: Haytham M. Mohamed, Omar El-Gayar

A Framework for Model-Centric Cross-Silo Horizontal Federated Machine Learning

Authors: Haytham M. Mohamed, Omar El-Gayar

How Microservices Architecture is Successfully Implemented in Organizations

Authors: Haytham M. Mohamed, Omar El-Gayar

How Attractive is Artificial Intelligence? An Empirical Study of User Adoption of AI Apps

Authors: Gary Yu Zhao, Omar El-Gayar, Cindy Zhiling Tu

NEBA Conference



Dr. Daniel Talley and Dr. Yenling Chang had their paper on “Examining the Performance of the SD Banking System during the Pandemic” accepted at the Nebraska Economics and Business Association (NEBA) conference in October.

<https://nebeconandbus.org/>

Publications

Dr. Omar El-Gayar published a peer-reviewed book chapter in the Encyclopedia of Data Science and Machine Learning. The citation for this publication is: Chakrobaratty, S., & El-Gayar, O. (2022). Fairness Challenges in Artificial Intelligence. In J. Wang (Ed.), Encyclopedia of Data Science and Machine Learning (p. 2500). IGI Global.

<https://www.igi-global.com/book/encyclopedia-data-science-machine-learning/276507>

Dr. Omar El-Gayar’s research paper from the National Cyber Summit (NCS) Research Track 2021 conference proceedings was published in 2022 by Springer International Publishing as part of a book series titled “Lecture Notes in Networks and Systems”. The paper was coauthored with Tania Williams of the University of Alabama in Huntsville. The citation for this publication is: Williams, T., & El-Gayar, O. (2022). Design of a Virtual Cybersecurity Escape Room. In K.-K. R. Choo, T. Morris, G. Peterson, & E. Imsand (Eds.), National Cyber Summit (NCS) Research Track 2021 (Vol. 310, pp. 60–73). Springer International Publishing.

https://doi.org/10.1007/978-3-030-84614-5_6

In addition, Dr. El-Gayar published two articles in peer-reviewed journals:

» Jernejcic, T., & El-Gayar, O. (2022). The Role of the Privacy Calculus and the Privacy Paradox in the Acceptance of Wearables for Health and Wellbeing. *AIS Transactions on Human-Computer Interaction*, 14(4), 490-522.

<https://doi.org/10.17705/1thci.00177> DOI: 10.17705/1thci.00177

» Mitchell, D., & El-Gayar, O. (2022). Privacy and Online Social Networks: A Systematic Literature Review of Concerns, Preservation, and Policies. *Pacific Asia Journal of the Association for Information Systems (PAJIS)*, 14(4), 26.

<https://doi.org/doi:10.17705/1pais.1440X>

Avera ProjectNEXT

The Avera ProjectNEXT project is funded through a HRSA grant, and Dr. Patti Brooks of the College of BIS is the principal investigator (PI) for the subawardee portion DSU was awarded. An emphasis of the grant proposal was the need and success of developing a remote healthcare workforce in rural South Dakota.

The two components of the project that DSU is working on are: (1) Development of training modules for advanced telehealth and virtual care and health informatics and (2) Providing opportunities (mostly remote) for health informatics internships and cyber internships. Dr. Brooks and Julie Wulf Plimpton are developing the content for the training material, and working with one of DSU’s health informatics and information management (HIIM) students and Catherine Ingham through DSU’s Center for the Advancement of Health Information Technology (CAHIT) MadLab to finish the development of the modules.

They will be working with Dr. Deb Tech on the internship portion of the project. The plan is for two paid internships for health informatics and two paid internships for cybersecurity each year for the next three years, with the first ones starting during the spring semester, 2023. Each internship will be 500 hours and the bulk of the work will be done remotely with Avera supervision. Julie Wulf Plimpton will be coordinating the health informatics internships and Deb Tech will be coordinating the cybersecurity internships. In addition, Patti Brooks and Julie are developing the content for the HIPAA privacy and security modules in the training, and all interns will need to go through the training modules. The focus is undergrad students who want to stay living and working in South Dakota; they will be doing their internships in conjunction with many of the Avera sites.

IACIS 2022

The 62nd annual conference of the International Association for Computer Information Systems (IACIS 2022) took place October 5th through the 8th. This year’s theme was “Digital Transformation and Disruptive Technologies” and submissions included a wide range of topics from gamification to IoT security.

Alicia McNett, a DSU PhD student presented a paper she authored with Dr. Cherie Noteboom, titled “Recommender systems research and theory in higher education: A systematic literature review”.

The journal citation is: McNett, A. & Noteboom, C (2022). Recommender systems research and theory in higher education: A systematic literature review. *Issues in Information Systems*, 23(3), 158-173.

https://doi.org/10.48009/3_iis_2022_113

DSU PhD student, Kalee Crandall, along with Kodey Crandall and Dr. Omar El-Gayar published a paper from the IACIS conference titled “The role of age in organizational knowledge sharing: A systematic literature review”. The journal citation is: Crandall, K., Crandall, K., & El-Gayar, O. (2022). The role of age in organizational knowledge sharing: A systematic literature review. *Issues in Information Systems (IIS)*, 23, 12.

https://doi.org/10.48009/2_iis_2022_106

CADSCOM 2022

College of BIS's Professor Omar El-Gayar attended the 4th Colloquium on Analytics, Data Science, and Computing (CADSCOM 2022) at Minnesota State University Mankato at Edina. The event featured a keynote address, panel discussions, research paper presentations, and a student project showcase.

Dr. El-Gayar was a panelist for the session titled “Tips for Enhancing Research and Publications” along with other panelists Dr. Alok Gupta, University of Minnesota; Dr. Rassule Hadidi, Metro State and MWAIS Journal; Dr. Mohammed Mokbel, University of Minnesota; and Dr. Deepak Khazanchi, University of Nebraska-Omaha. The moderator for the session was a DSU alumni, Dr. Rajeev Bukralia, Minnesota State University, Mankato.

DSU also had an informational booth to promote our graduate programs and Dr. El-Gayar was present to answer questions.

<https://www.twincitiesacm.org/cadscom2022/>



Decision Sciences Institute (DSI)

The 53rd Annual Conference of the Decision Sciences Institute was held November 19 – 21, 2022 in Houston, TX, with a theme of “Resiliency and Adaptability for a Better Global Future”. Dr. Omar El-Gayar and DSU student, Haytham Mohamed, presented a paper at the conference.

Mohammad, Haytham and El-Gayar, Omar, “Security Vulnerability Impact on Open Source: A Social Media Exploration” (2022). *Faculty Research & Publications*. 288.

<https://scholar.dsu.edu/bispapers/288>



DSU CLUB NEWS

Phi Beta Lambda Rebrand

Phi Beta Lambda is now known as FBLA-Collegiate. They host biweekly meetings on Tuesdays at 12:20 p.m. in East Hall room 101. This started last September. Contact Lucy.Fods@trojans.dsu.edu.

FBLA Club Parade Entry Won “Most Beautiful” Award For The 2022 Homecoming Parade!



FBLA’s Annual Raking For Leaves Event Took Place In Late October



FBLA Hosted A Blood Drive On Campus In December



Launch Lab Presentations



DSU CEO President Justice Forster and Vice President Garret Leiseth attended Launch Lab’s Fall 2022 cohort’s final presentations. They heard pitches from a variety of businesses and listened to feedback from evaluators. Justice spoke briefly about his experience placing in this year’s Governor’s Giant Vision Competition after completing Launch Lab.

Innovation Expo

CEO members and DSU students attended the Innovation Expo in Sioux Falls, where they had opportunities to learn from entrepreneurs and network with business people and other students.



Academic Excellence



Student organizations were honored at the SD Board of Regents meeting this Fall. BOR President Pam Roberts and Board CEO Dr. Brian Maher joined DSU President Dr. Griffiths in presenting the awards to these groups.

The Phi Beta Lambda (PBL) Business Club received the Award for Academic Excellence. This group uses innovative leadership and career development programs to blend business and education. Some of these programs include competitions in state and national leadership conferences. Accepting the award was PBL president Lucy Fods, along with advisors Dr. Yenling Chang and Dr. Dan Talley. Note: PBL has a new name at DSU -- FBLA Collegiate!

Congratulations to PBL/FBLA Collegiate!!

GRADUATION

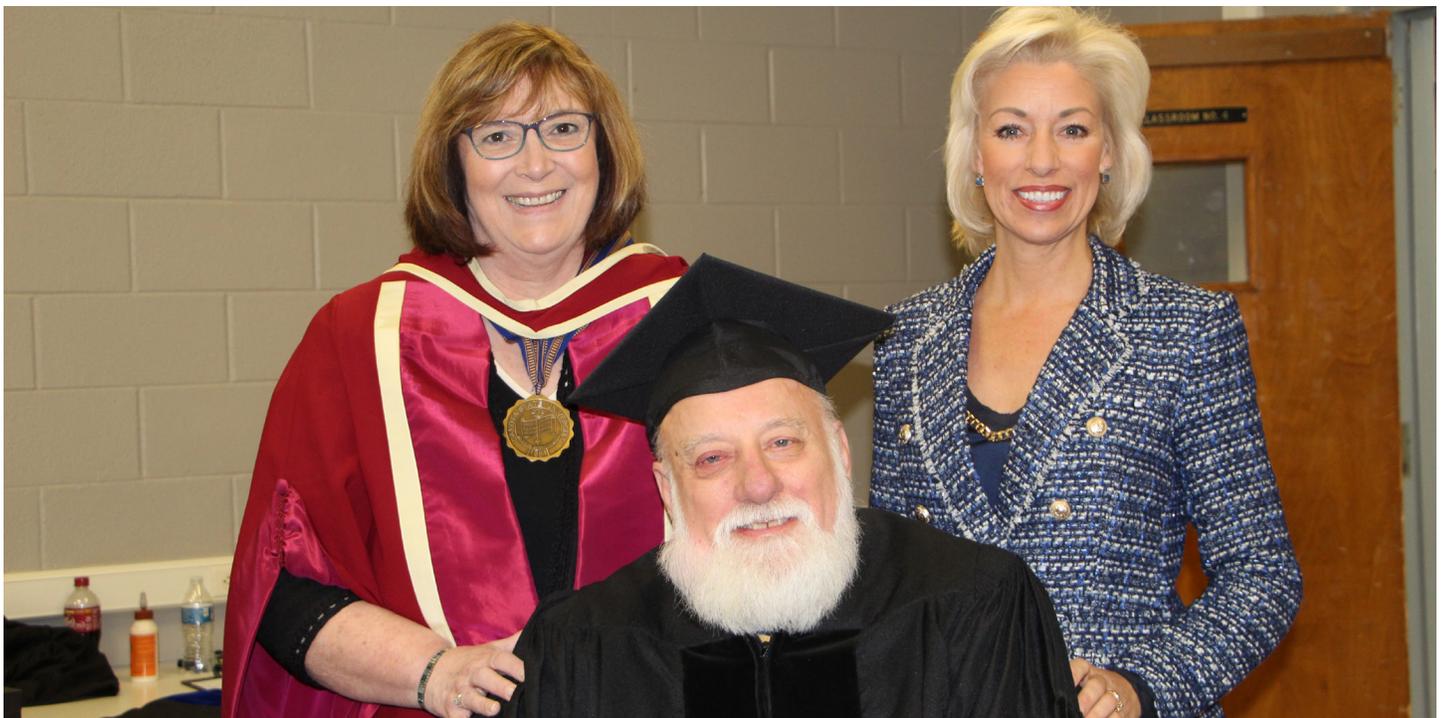
Fall 2022 Commencement



Congratulations to our Fall 2022 class! For a copy of the commencement and hooding programs, with a list of graduates, visit DSU's website at dsu.edu/commencement/

We were pleased to have a College of BIS alumna, Shantel Krebs, as the commencement speaker. Shantel earned a Bachelor's Degree in Business Administration from Dakota State University (DSU), and she has been honored as a Dakota State University Distinguished Alumnus. She has had a successful career in the healthcare industry, business consulting and entrepreneurship, tenure in the SD legislature, and was South Dakota's 28th Secretary of State. She previously served in the South Dakota House of Representatives and South Dakota Senate. Most recently she created and leads the Avera Academy, a pipeline initiative that encourages students to develop a passion for careers in healthcare.

Dr. Dan Talley, a professor in the College of BIS and the Coordinator of the MBA Program, had the honor of carrying the mace for the December commencement ceremony. The ceremonial mace, a symbol of university scholarship and integrity since the 11th century, is used to lead the academic procession at commencement and other special ceremonial occasions, signifying the importance of the event and the conformation of the academic process. Historically, the mace is a symbol of authority dating from medieval times when knights carried them during processions with their kings. As the tradition grew, the mace became a ceremonial symbol of peaceful leadership, and maces were



THE COLLEGE OF BUSINESS AND INFORMATION SYSTEMS NEWSLETTER

DAKOTA STATE
UNIVERSITY



inspire yourself

COLLEGE OF BUSINESS & INFORMATION SYSTEMS

THE BIS DIFFERENTIATOR

- Develop your competitive advantage with technology-infused curriculum
- Understand how technology improves health and well-being
- Incorporate AI and other innovations to transform business and lives

4+1 FAST TRACK PROGRAM

2
DEGREES



5
YEARS

a unique opportunity to obtain your bachelor's and master's degrees in just five years.

MAJORS & DEGREES

CHOOSE FROM

25



SCAN CODE
TO SEE THEM

PROGRAMS IN:

- BUSINESS
- COMPUTER INFORMATION SYSTEMS
- DATA ANALYTICS
- ARTIFICIAL INTELLIGENCE IN ORGANIZATIONS
- HEALTH INFORMATICS AND INFORMATION MANAGEMENT

OPPORTUNITIES FOR SUCCESS

- Center of Excellence in Computer Information Systems
- General Beadle Honors Program



INTERSHIPS



GAIN CAREER EXPERIENCES WHILE LEARNING

Use internships to strengthen your professional skills and grow connections.

LEADERSHIP, TEAMWORK, AND FUN!

Connect with fellow students, engage in what lights you up.

- Association for Info Systems (AIS)
- Collegiate Entrepreneurs Organization (CEO)
- Future Business Leaders Association (FBLA) Collegiate
- Delta Mu Delta Business Honor Society



MEET THE TEAM



CHOOSING A CAREER PATH CAN BE OVERWHELMING, HOWEVER, WE ARE HERE TO HELP!

📞 605-256-5165

✉ bis@dsu.edu

🌐 dsu.edu

THE COLLEGE OF BUSINESS AND INFORMATION SYSTEMS NEWSLETTER

ONLINE PROGRAMS

GET YOUR DEGREE YOUR WAY

Get your degree without sacrificing the quality of your education!



BENEFITS

- Flexible schedule
- Personalized education
- Self-paced learning

OUTCOMES

WE HAVE PROGRAMS THAT LEAD TO CAREERS



Health Data Analyst



IT Engineer



Web Developer



K-12 Technology Teacher



Social Media Specialist



Financial Advisor

And so many more!

STACKABLE PROGRAMS

BUILD YOUR DEGREE

- Get multiple degrees that build on each other
- Certificates > Associate > Baccalaureate > Graduate



PLACEMENT



The College of Business and Information Systems boast a 99% career placement rate. We help you grow a valuable network of professionals and mentors. Get started today on building your foundation for the future.

ACCREDITATION



Our business programs are accredited by the Accreditation Council for Business Schools and Programs (ACBSP).

- Business (BBA)
- Professional Accountancy (BS)
- Business Management (AS)
- Master of Business Administration (MBA)

All inquiries about the program's accreditation status should be directed by mail to U.S. World Headquarters 11520 West 119th Street, Overland Park, KS, 6621; or visit their website at <https://acbsp.org/>

The Health Informatics and Information Management accreditor of Dakota State University is the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM).

- The College's accreditation for the Associate of Science degree in Health Informatics and Information Management has been reaffirmed through 2029-30.
- The College's accreditation for the Bachelor of Science degree in Health Information Administration has been reaffirmed through 2029-30.
- The College's accreditation for the Master of Science degree in Health Informatics and Health Information Management has been reaffirmed through 2028-29.

All inquiries about the program's accreditation status should be directed by mail to CAHIIM, 200 East Randolph Street, Suite 5100, Chicago, IL, 60601; by phone at 312.235.3255; or by email at info@cahiim.org.



THE COLLEGE OF BUSINESS AND INFORMATION SYSTEMS NEWSLETTER



PROGRAM CURRICULUM

[DSU Catalog](#)
catalog.dsu.edu/

ACCREDITATION OR APPROVAL

The College of Business and Information Systems offers programs that have been accredited or approved by meeting national standards.

COLLEGE OF BUSINESS & INFORMATION SYSTEMS

Address

820 North Washington Avenue - East Hall
Madison, SD 57042

Phone

605-256-5165

Email

BIS@dsu.edu



COLLEGE NEWSLETTERS

Beadle Scholar

scholar.dsu.edu/bisnews/