

# THE BEACOM COLLEGE OF COMPUTER & CYBER SCIENCES

# ANNUAL NEWSLETTER

## A MESSAGE FROM THE DEAN

*Hello! I am Dr. Mary Bell, the new Dean of The Beacom College.*

*Since I'm new to DSU, I'd like to take this opportunity to share a little about myself. I am a native of New Mexico, and bring 34 years of leadership experience to Dakota State. My background includes over 20 years of active-duty service in the U.S. Army with expertise in aviation and intelligence, two years teaching experience at the U.S. Air Force Academy at the undergraduate level, and 11 years teaching experience at the National Defense University.*

*I am impressed by the institution's mission, its exceptional leadership, faculty, and staff, and its rising future. As I immerse myself in the campus environment, I witness the truly remarkable qualities of Dakota State and Beacom College.*

*In 2024, we expect to continue to rise in The Beacom College of Computer & Cyber Sciences, marked by our unwavering commitment to learning, innovation, and the pursuit of extraordinary accomplishments.*

*I hope you enjoy reading about all the ways The Beacom College is rising!*



**DR. MARY BELL**

## BEACOM DEAN'S DISTINGUISHED GUEST SPEAKER SERIES



Dr. Mary Bell, the new Dean of The Beacom College of Computer & Cyber Sciences, is looking to inspire and educate students and faculty through a new speaker series, the Beacom Dean's Distinguished Speaker Series.

Bell feels that a full education includes thought-provoking events, so speakers selected for this bi-annual event will share about the impact and challenges of careers in cyber-related fields.

Major General David Gaedecke was the inaugural speaker this October. He recently retired from the U.S. Air Force as the Vice Commander of the Sixteenth Air Force (Air Forces Cyber) and has served as the Director of Cyberspace Operations at The Pentagon.

After his speech, Maj. Gen. Gaedecke answered student questions about politics, cyber, leadership, and business.

"I was really impressed by the thoughtful and relevant questions from the students and faculty. Beacom is clearly growing the next generation of Cyber leaders," Maj. Gen. Gaedecke stated.

Maj. Gen. Gaedecke also met with students, and recorded a DSU Cyberology [podcast](#).

The second Dean's Speaker event will be held in March 2024, during DSU's Research Week and DakotaCon.





## AT&T SPONSORSHIP

*The Beacom College has many business and organizational partners that assist with our academic and outreach programs, like CybHER. One of those is AT&T, which has been committed to bridging the digital divide. A recent project helps provide technology support and digital literacy training for youth in South Dakota's tribal nations. A \$27,000 contribution to CybHER provides resources to connect these students to skills, resources, and opportunities for success in school and in life.*



# DEPARTMENT HIGHLIGHTS

## DSU DOMINATES US CYBER TEAM

Beacom College students and alumni are making a growing impact on the world through the U.S. Cyber team competitions.

In 2022, cyber teams from around the world met in Greece to compete against each other in the first-ever International CyberSecurity Challenge. Dakota State had four members on the Season I team.

In 2023, four from DSU made the Season II team, and one was a junior tech mentor. This competition was held in San Diego, Calif.

For the 2024 Season III team, four DSU students and alumni are on the team, giving us the largest university contingent of any school on the team for three years in a row.

This influence is being noticed. At the Season II draft, Season II Assistant Head Coach Dr. Dane Brown said, "I don't know what they're putting in the water at Dakota State, but there is some amazing talent that we've gotten from that school." Brown is an assistant professor of cybersecurity at the U.S. Naval Academy.

Shane Donahue, Austen King, and Gwen Vongkasemsiri are returning to the team, and Gaelin Shupe is a new member of the team. Three others from DSU will be in coaching positions: Dr. Tyler Flaagan is a senior tech mentor, and Logan Stratton and Josh Klosterman (both alumni of the first season teams) will be junior tech mentors. Logan's work on the past year's team earned him the Season II Alumni All-Star Award. Six students are on the pipeline team-- Brayden Borges, Jonathan Derenge, Jacob Hince, Annabelle Klosterman, Gillian Morris, and Gage Schacher. The date and location for the 2024 competition are yet to be announced.

This international cyber competition was created by the European Union Agency for Cybersecurity. A U.S.-based social impact company, Katzcy, sponsors the U.S. team for this competition. Cyber athletes, ages 16 to 25, are chosen through an application and competition process, paring the number down to 30 team members.



## COMPETITION FEVER

Beacom College students have a passion for competition, and they find ways to compete in regional, national, and even international events. Besides the thrill of competition, these events are perfect opportunities to help the students hone professional skills in offensive and defensive security techniques, build important communication skills, learn teamwork and leadership, and network with other students around the nation. Here are just a few of the events in which our students have been competing this year:

- ◆ Dakota Conquest, 1<sup>st</sup> place
- ◆ CPTC Central Regional, 3<sup>rd</sup> place
- ◆ AL CCDC, 1<sup>st</sup> place, and advanced to National CCDC
- ◆ National CCDC, 6<sup>th</sup> place
- ◆ MISI Hack the Building 2:0 Hospital Edition, 2<sup>nd</sup> place

## HISTORIC PARTNERSHIPS

*This year, Dakota State signed educational partnership agreements with the National Security Agency and ArmyCyber. Both will expand educational, research, and career opportunities for DSU students, and help the University. DSU has also signed a memorandum of understanding with Griffith University in Queensland, Australia to collaborate on a variety of projects.*

# DAKOTACON RETURNED IN 2023!

DakotaCon was a wildly popular security conference hosted for many years at Dakota State.

It was cancelled for a few years due to the pandemic, but many, including DSU students, wanted it to return. Through their efforts, DakotaCon 10.1 took place March 24-26, 2023.

Alumna Annabelle Klosterman attended DakotaCon as a freshman in high school in 2016.

“It was a great experience for me and one of the many reasons I decided to go into the cybersecurity field and attend DSU,” she said.

DakotaCons were “a wonderful event for me to learn, meet cybersecurity students and industry professionals, and increase my overall knowledge and skills.” She graduated with her Cyber Defense master’s student this fall. She is from Brandon, S.D.

“One of the things that makes DakotaCon special is that it is a relatively small conference, and this creates an environment that cultivates learning and networking with others,” said Klosterman.

Because of this personal impact, she joined efforts to bring the convention back last spring, wanting to help provide others with the same opportunity she had experienced.

Alumnus Nathan Ord has not attended a DakotaCon but heard great stories about them. Planning a 2023 event was an excellent opportunity for him to pick up a new project with his friends and professors. He received his master’s degree in Cyber Defense this fall, and is from Elburn, Ill.

Dr. Kyle Cronin, advisor for the 2023 event, was pleased and excited to have the community of students, DSU alumni, and industry professionals from throughout the region come back together.

“Not only does that give our students a great experience in organizing and managing an

event, it also brings a fresh set of eyes to DakotaCon,” he said.

Ord said he and the team brought an outstanding lineup of industry professionals worldwide to DakotaCon 10.1, covering topics from cyber-ag to cyber-space and much in between. The agenda included two tracks of presentations at the Dakota Prairie Playhouse, including keynote speaker Command Sergeant Major Sheryl D. Lyon, with U.S. Cybercom.

There was also a free cybersecurity competition called DakotaConquest, and paid training sessions for business representatives on the weekend, led by TrustedSec, Black Lantern Security, and GRIMM Cyber.

DakotaCon 2024 is planned for March 22-24, 2024.

## AI SWEDEN EXCHANGE

AI is like electricity. It will soon be incorporated into everything in the world. Through an international exchange program, some of our graduate students will not only be more familiar with this emerging technology, but they will have had a hand in creating and improving it. Twelve students from the U.S. and Europe participated in the DSU/AI Sweden Industrial Immersion Exchange Program this past summer. They learned not only about AI, but the research process as well, from mentor faculty, industry leaders at international technology firms such as Intel, Dell, and Hewlett Packard, and each other. They split into three groups to research projects for Volvo and Zenseact and Case New Holland. “These collaborations gave them valuable experience working with industrial stakeholders to establish expectations and desired deliverables,” said the program’s co-director Dr. Mark Spanier.



## BY THE NUMBERS

1,323

TOTAL  
ENROLLMENT

100%

UNDERGRAD  
PLACEMENT

24.6

AVERAGE  
ACT SCORE

163

STUDENT ATHLETES  
IN 13 SPORTS

100%

GRADUATE  
PLACEMENT

30/7

FACULTY/  
ADJUNCTS

8/21

GRAD ASSISTANTS  
STUDENT EMPLOYEES

53%

OF STUDENTS FROM  
THIS COLLEGE MAKE UP  
THE WHOLE UNIVERSITY

3.2M

IN FY22 FOR RESEARCH  
EXPENSES FROM SPONSORED  
GRANTS/CONTRACTS

## WHERE OUR STUDENTS ARE COMING FROM

54

SD COUNTIES

32

COUNTRIES

47

STATES



DAKOTA STATE

THE BEACON COLLEGE of  
COMPUTER & CYBER SCIENCES



# STUDENT NEWS

## REACHING FOR THE STARS

DSU student Connor Starrett will literally reach for the stars in his career. The Computer Science and Cyber Operations double major and Air Force ROTC cadet will join the Space Force after his graduation in Spring 2024.

The position will provide opportunities for Starrett to work in orbital warfare, space electronic warfare, missile warning systems, and, in the future, as a launch officer, who would help oversee the launch of commercial rockets into space, he explained.

Starrett hopes to go into electronic warfare. "That way, I get the best of both worlds," he said. "I get to utilize the experience and the knowledge that I have from my degrees here at DSU while simultaneously getting to work in a field still in its infancy."

The U.S. Space Force was established in December 2019 as the newest branch of the Armed Forces. Its mission is to organize, train, and equip space forces to protect U.S. and allied interests in space and provide space capabilities to the joint force.

His childhood inspired his interest in serving.

Starrett's parents both spent six years in the Air Force. After leaving the service, his father decided to work for Department of Defense Education Activity (DoDEA), so Starrett remained connected to the military.

"There was always a desire to serve from a really young age," he said. "As I got older, I wanted to do whatever I could to help other people and be of service."

His DSU education has been an learning experience from day one, Starrett added. In more advanced classes, there are a lot of opportunities to develop problem-solving skills by deciding how to approach coursework and assignments.

"Getting to mess with firewalls in the Information Assurance Lab and then learning malware analysis, it's practically unheard of for undergrads, so the fact that we get to do that here is amazing."

These experiences at DSU will help Starrett take on new challenges as a Space Force Operations Office.

## NEWSMAKERS

Ben Bowman is no stranger to publicity. The Cyber Operations major has been featured as a successful student researcher on the University website, and was chosen to represent DSU at the annual Legislative Research Day in 2023, for his research project on bypassing rolling code encryption.

He has also been featured in national publications: National Public Radio interviewed him at the DefCon Hacker Conference in Las Vegas last August. He had just successfully tricked a chatbot into revealing a credit card number at a competition, and he was pretty excited to take first place on the leaderboard. He and about 2,000 people tried worked with leading AI chatbots from companies including Google, Facebook parent Meta, and ChatGPT maker OpenAI.

This article led to more media attention, with a feature on the local SDPB program *In the Moment*.

Bowman's personality will likely keep him in the news throughout his career, because he is persistent with his interest in cybersecurity.

Growing up on a ranch near Fairburn, S.D., he said, "almost all my pet projects are born out of necessity, but I felt like the only guy in South Dakota like that."

"Here at Dakota State, I'm with like-minded people," so he offered this advice for others like him. "Don't let anybody discourage you from getting into cybersecurity. You have to be a little stubborn."

## A SEAT AT THE TABLE

"This was easily the coolest conference we've been to."

This is how Dakota State University graduate students Gillian Morris and Janessa Palmieri described the 2023 RSA Conference, which they attended as RSA Conference (RSAC) Security Scholars.

The Scholar program brings the next generation of cybersecurity professionals into the conversation, where they can share in the knowledge, experience, and connections available at the conference.

"I'm so grateful for this opportunity," Palmieri said. "My parents commented how they never had experiences like this in college."

Both Morris and Palmieri have attended conferences before, but this one was exceptionally

impressive. The San Francisco Moscone Center is "so massive it's probably bigger than campus," said Palmieri. About 45,000 people attend the conference, and it's the largest cybersecurity conference in the U.S., Morris said. There are over 650 speakers, more than 350

Palmieri found it interesting that some speakers were from companies she was familiar with from her DSU classes. For example, the Chief Security Officer from GitHub presented about protecting open-source software from vulnerabilities.

There were also scholar-only events where they could talk one-on-one with industry professionals. At one of these sessions, they met Adi Shamir, one of the co-founders of RSA.

"It was so interesting to meet these people from industry and hear their stories," said Palmieri. Networking with the other students was fun, and seeing what these students were researching. "Bright minds getting together and learning from each other is really great," she said.



## NATIONAL CYBER SCHOLARS

*Dakota State students go above and beyond to study cyber.*

*In addition to taking cutting-edge academic courses, many build on DSU's environment to and participate in additional learning and scholarship opportunities.*

*Examples are the online CyberStart and Cyber FastTrack summer challenge programs.*

*Gwen Vongkasemsiri, a Cyber Operations and Network Security & Administration double major, got involved with these as a high school student in Tennessee. When she came to DSU in 2022, she encouraged others to get involved.*

*Several embraced the opportunity and put in the extra time to earn recognition as National Cyber Scholars. In 2023, Vongkasemsiri was named a Scholar with Honors, and Brandon Baker (a doctoral student in Cyber Defense from Milaca, Minn.), Jonny Derenge (a Cyber Operations major from Sioux Falls, S.D.), Jackson Heiberger, and Derek Manzella (a Cyber Operations major from Eagan, Minn.), were identified as cyber scholars.*

*Those who complete the program receive a badge and certification. These look great on a résumé, Heiberger said, but there are additional endorsements like SANS Institute courses.*

*Vongkasemsiri said "I am so grateful for the friendly environment DSU provides to students that enables us to grow, expand interests, and explore and research concepts we find intriguing. It is highly instrumental in why DSU students have continued success in cybersecurity competitions like Cyber Fast Track."*



## LEAD BY EXAMPLE

*Tyler Thomas fits right in at Dakota State, and has immersed himself in his academics and campus life.*

*He was featured in an article in the Grand Forks Herald this year, where Dr. Tom Halverson was quoted as saying, "Tyler is a true student leader."*

*Thomas is a CyberCorps student, finishing his master's degree in Computer Science with a specialization in cyber operations. As a CyberCorps (a National Science Foundation scholarship for service program) he'll work for the government after graduating in spring 2024, then could explore other opportunities like cybersecurity research jobs.*

*"DSU is absolutely the way to go because it's a technical college and you're getting a technical degree," Thomas said in the article. "Every other college that offers computer science is teaching the theory behind computer science how computers work, why they work, how the computer feels while it's working."*

# FACULTY UPDATES

## HUMBLING EXPERIENCE

Dr. Mary Bell, Dean of The Beacom College, was honored this fall with a Joint Meritorious Civilian Service Medal from the Office of the Chairman, Joint Chiefs of Staff.

She earned this prestigious award for her work as a faculty member at NDU's Joint Advanced Warfighting School. She was called "a skilled and resourceful educator," particularly for her efforts to rewrite a college contingency planning scenario. She was also noted for her other research, engagement, and service activities that enhanced the standing and reach of National Defense University.

When Bell came to DSU this summer, she brought 20 years of service in the U.S. Army with expertise in aviation and intelligence. She also has two years teaching experience at the U.S. Air Force Academy, and 11 years at the National Defense University (NDU).

In addition to her teaching strengths, Bell has distinctive networking connections. She was part of a 50-member team of experts representing the North Atlantic Treaty Organization (NATO) Defense Education Enhancement Program (DEEP) this summer in Poland. Half of the team was from NATO nations, and half were from Ukraine.

The group worked to develop a curriculum

guide featuring strategic, operational, and tactical lessons learned by the Ukrainian Armed Forces during the ongoing Russia-Ukraine War. This guide will help all NATO nations better train and educate military forces. Any member or partner nation can use the curriculum guide to learn how Ukrainian forces are innovatively fighting across and integrating effects in multiple domains to diminish Russian warfighting capacity. The team findings effectively capture lessons that will enhance NATO and partner nations' ability to counter threats in many domains and areas, and will likely benefit NATO allied and partner country war colleges, staff colleges, and academies for years to come.

Bell explained that the Ukrainians traveled to Poland by train to spend a full week with the group to determine ways to better educate and protect all NATO nations against Russian malign activities. This "was a selfless act to help prevent what is happening to them from happening to anyone else. I heard many personal stories of the war's impact on them and their families," Bell said.

"Spending that much time with dedicated Ukrainian military and civilian professionals was both humbling and sobering," she stated. "I was deeply impressed with how Ukrainians stay incredibly positive about winning the war ensuring their nation and culture survives."

## FACULTY RESEARCH MENTORS

*Research is rising at DSU, and six Beacom undergrads and two graduate students were awarded DSU grants for research projects. The importance of mentored student research cannot be understated because these hands-on projects prepare students for the real working world. Faculty mentors include John Hastings, Omar El-Gayar, Austin O'Brien, Robert Richardson, Andrew Kramer, and Mark Spanier. "Research can ignite a passion for learning and discovery that continues into a professional career," said Dr. Stacey Berry, Coordinator of Undergraduate Research. All students and faculty researchers will present their project results at the March 2024 research symposium.*





## EXPERT ADVICE

DSU faculty are world-class, and willing to share that expertise with everyone, from the students in their classrooms to practitioners in the field, through articles in professional trade publications.

In May, Dr. Ashley Podhradsky, DSU alumna and Vice President for Research & Development, explained the importance of cybersecurity with small businesses in a free Cybersecurity e-book for Cyber Defense Magazine.

Small businesses are the backbone of the nation's economy, but they are vulnerable to cyberattacks. She pointed out available resources and proactive steps for owners to enhance cybersecurity awareness and education.

"Small businesses must continue to invest in cybersecurity, focus on education and awareness, and the federal government must continue to support small businesses in their efforts to protect themselves," she wrote.

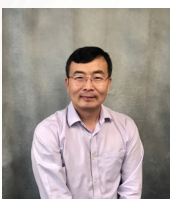
Dr. Chris Olson, another DSU alumnus and Associate Professor in the Beacom College, wrote an article on the importance of digital accessibility and cybersecurity going hand in hand. He provided some examples of accessibility barriers, and offered advice to design secure and accessible websites and apps.

"By following best practices and fostering collaboration, platform designers and cybersecurity providers can create accessible websites and apps that are secure for everyone, ensuring that all users can access an organization's online platforms and that their information will be secure from being accessed by those with malicious intent," he concluded.



## EXPERT ADVICE

The shortage of talent in cybersecurity is no secret. This means it's more important than ever to educate the current workforce, and provide tools and training to prevent cyberattacks from the start. Dr. Cody Welu talked about this idea of educating the U.S. workforce on cyber hygiene in an InfoSecurity Magazine article. Dr. Michael Ham and Andrew Kramer discussed ways to protect from surging ransomware attacks with effective cyber hygiene, also in an Infosecurity Magazine article. Using the adage "an ounce of prevention is worth a pound of cure," they recommend taking proactive measures such as keeping systems up to date, regularly scanning for malware, and backing up data to prevent ransomware attacks.



## EXPERT ADVICE

Agriculture is different than it was years ago because of the incorporation of emerging technologies like AI. This means cybersecurity has now become a true concern for ag producers. Dr. Tom Halverson, Dr. Yong Wang, and former faculty member Dr. Bhaskar Rimal discussed this in an Infosecurity magazine article titled "Cybersecurity in Precision Agriculture: Safeguarding America's Connected Fields." Increased cybersecurity benefits every profession, so Drs. Pat Engebretson and Ashley Podhradsky discussed "How Universities Can Help Support the National Cybersecurity Strategy." The White House's National Cybersecurity Strategy announced this summer provides a comprehensive approach to increasing the resilience of users and cyber systems, and securing the digital future of the United States.



## EXPERT ADVICE

Emerging technologies like generative AI are advancing rapidly onto the education landscape. Kyle Korman spoke with Government Technology reporter Brandon Paykamian about utilizing AI tools in the classroom. In the article, he said he doesn't heavily rely on tools like ChatGPT for his lessons, but has used it for discussions, to teach students about the importance of fact-checking, and to expand horizons. "I think they can be really handy on the educator side of things for multiple reasons, like lesson planning," he said. "I've also recommended students to ask ChatGPT questions, then obviously ... follow up and confirm with other sources, because ChatGPT and other AI systems can make some things up."





# ALUMNI & PHILANTHROPY

## TRACK SUITS AND TRIUMPHS: DSU ALUMNI GIVING BACK IN UNIQUE WAYS

### DSU-SOAR

Does your business need help training employees on new and emerging technologies? DSU-SOAR (Strategic Outreach that's Agile and Responsive) can help! Reach out to [Dr. Richard Hanson](#) for more information.

### 1337

Graduates from The Beacom College know the best ways to nod to the hacker world while still supporting their alma mater. Keep an eye out for donations such as \$13.37, \$133.37, or even \$313.37. 4ll y0ur b453 4r3 b3l0ng 70 u5.

Jarod Keene ('19, '21) and Jordan Oberg ('20) epitomize the transformative power of a Dakota State education. From their student days to their current roles in DSU's Applied Research Lab, their commitment to giving back is unwavering. As the iconic "Track Suit Guys" on Day of Giving, they symbolize the spirit of alumni unity and highlight how giving back through more than just financial means can make a lasting impact. Their journey reflects the unique DSU experience, inspiring others to stay connected and contribute. Jarod and Jordan stand as a testament to DSU's enduring legacy, showcasing the profound impact of alumni dedication and the vibrant community they continue to foster.



### #GIRLBOSS

DSU alumna Annabelle Klosterman ('22, '23), a distinguished cybersecurity expert and Cyber Defense Magazine writer, addresses diverse topics from AI defense to youth cyber education. A frequent speaker at events like US Cyber Games and RSA Conference, her goal is to revolutionize cybersecurity awareness and practices for enhanced public safety.

## CYBERCORP AT DSU: A CULTURE OF EXCELLENCE AND GIVING BACK

Established in 2010, DSU's CyberCorps program, a national scholarship for service initiative by the National Science Foundation (NSF), stands as the nation's largest of its kind. With 25 active members and a cumulative 124 students over 12 years, the program addresses the shortage of cybersecurity professionals. Dr. Michael Ham, Associate Professor in The Beacom College of Computer and Cyber Sciences and Director of the DSU program, highlights its significance given the university's size. DSU CyberCorps students achieve a 100% placement rate in internships and full-time positions with prestigious government agencies, including the NSA, U.S. Air Force, and national labs nationwide. Developed under the Federal Cyber Service Training and Education Initiative, the program covers 100% of tuition and fees, offers stipends of \$25,000 for undergraduates and \$34,000 for graduate students, and allocates \$6,000 for professional development and books. Students benefit from paid

summer internships and a guaranteed security job post graduation within the government. To sustain the program's success, students give back by participating in clubs, research projects, competitions, and financially. Recognizing the importance of philanthropy, CyberCorps instills a culture of giving back, ensuring the next generation of cybersecurity professionals remains connected and committed to their alma mater. This commitment fosters a cycle of excellence, as alumni contribute to the program's growth, maintaining its status as a premier initiative in cybersecurity education.



## FOSTERING EXCELLENCE: BREAKING GROUND IN STEM SUPPORT

Dakota State University is excited to introduce a transformative scholarship initiative, aimed at supporting low-income alumni pursuing STEM fields. This opportunity has been made possible through a substantial National Science Foundation grant of nearly \$1 million, bringing forth the Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM) program. The initiative will provide crucial financial aid and support to DSU students majoring in computer science, cyber operations, artificial intelligence, or mathematics.

Dr. Rich Avery, a Professor in the College of Arts & Sciences, highlighted the critical need for such support, particularly for the 150 individuals identified in the low-income category during a comprehensive student population review. The six-year grant, a collaborative effort between the College of Arts & Sciences and The Beacom College of Computer & Cyber Sciences, is aptly named "Building a Sense of Belonging for Talented, Low-Income Students through Engagement."

This transformative program will impact two cohorts of six DSU students each, providing up to \$15,000 annually for up to five years, resulting in a total of \$75,000 in scholarships per student. The application process begins in spring, with the inaugural cohort scheduled to commence in fall 2024.

Dr. Peter Hoelsing, Associate Vice President for Research & Economic Development, outlined the comprehensive support structures

incorporated into the grant, including assistance with challenging math courses, supplemental instruction, study groups, and intensive advising. Moreover, the program ensures opportunities for undergraduate research, offering funding for conference travel and research publication costs.

The initiative's success will be meticulously monitored by Dr. Viki Johnson, Associate Professor in the College of Arts & Sciences, bringing a crucial social scientist perspective to ensure continuous improvement and student success. Dr. Rebecca Hoey, Provost and Senior Vice President for Academic and Student Affairs, emphasized the university's dedication to student success, stating,

*"Student success is our primary goal at Dakota State University. This program demonstrates our commitment to promote that success for every student."*

This grant marks a significant milestone in DSU's dedication to empowering students from all backgrounds, ensuring that financial constraints do not hinder their pursuit of excellence in STEM fields. As the university continues to champion inclusivity and student success, this initiative underscores DSU's commitment to fostering a diverse and thriving academic community.

## AUGER EARNS RITA AWARD

At Wild West Hackin' Fest in November, alumnus Gerald Auger ('11, '19) was honored with the Rita Award for his substantial contributions to the cybersecurity community. Known for being a positive and constant force, Auger, a Ph.D. graduate in Cyber Operations, furthers his passion for cybersecurity by assisting individuals and businesses. Through his company Simply Cyber, he shares valuable insights and advice on YouTube, helping many understand and appreciate the field.



## CAMPAIGN UPDATE: CYBER-RESEARCH

Dakota State University's Trojans Unite Comprehensive Campaign (TUCC) has made a remarkable leap in its Cyber Research Initiative, surpassing its \$90 million goal with over \$103 million in support. This achievement is a significant part of the broader \$250 million TUCC.

This extraordinary feat of philanthropy involves key partners like T. Denny Sanford, Sanford Health, and the cities of Madison and Sioux Falls. The funds are crucial for expanding DSU's Applied Research Lab (ARL) to Sioux Falls and boosting The Beacom College of Computer & Cyber Sciences in Madison.

This surge in support is more than a financial triumph; it's a testament to the collective vision for South Dakota as a burgeoning cyber state. It underpins efforts in national security, workforce development, and economic growth.

Under the leadership of President José-Marie Griffiths, this campaign exemplifies the power of unity in realizing ambitious goals, setting a new standard for innovation and collaboration in South Dakota's cyber domain.

## DSU-APPLIED RESEARCH CORPORATION: WELCOME TO THE DARC SIDE

As DSU's Trojans Unite Campaign carves new paths in cyber research, the Dakota State Applied Research Corporation (DARC) emerges as a key player in this transformative journey. Embracing the momentum from the campaign's remarkable success, DARC is poised to lead groundbreaking advancements

in cybersecurity and digital defense technologies. This strategic move marks a significant stride in establishing South Dakota as a nexus of digital innovation, reflecting a deep, enduring commitment to excellence in the ever-evolving realm of cyber technology.

TROJANS  
UNITE  
*Comprehensive Campaign*

# AWARDS & RECOGNITION



## THREE BEACOM FACULTY WERE HONORED LAST SPRING

Three Beacom faculty were honored last spring with awards for their service, teaching, and advising.

### Alexander “Sandy” Davidson Award for Excellence in Advising & Mentorship

Dr. Chris Olson, Associate Professor, was named the Alexander “Sandy” Davidson Award winner for Excellence in Advising & Mentorship.

Olson has advised nearly 100 undergraduate and graduate students in eight different DSU programs. His experience in using assistive technology is essential to ensure syllabi and course documents are free of accessibility issues.

The award is sponsored by Davidson’s children, Scott and Jenny Weatherill and Brian and Barb Harmdierks. It remembers Davidson’s work as Dean of Students and Director of Counseling. He retired from Dakota State in 1985 but remained active on campus and in the community until he passed away in 2006.

### DeWayne Mork Award for Excellence in Service

Associate Professor Dr. Kyle Cronin was honored with the DeWayne Mork Award for Excellence in Service.

Cronin coordinates the largest residential GenCyber camp in the nation, serves as administrator for the Cyber Scholarship Program (a scholarship-for-service program), and manages the IA lab on campus. The IA lab is a virtualized environment that is the backbone of the cybersecurity education at DSU. In addition, he is respected as a mentor to doctoral students and other faculty members, and serves on numerous committees, often in leadership roles. He is always willing to meet with prospective students, and visits high schools across the region, represents DSU at college fairs and on-campus events.

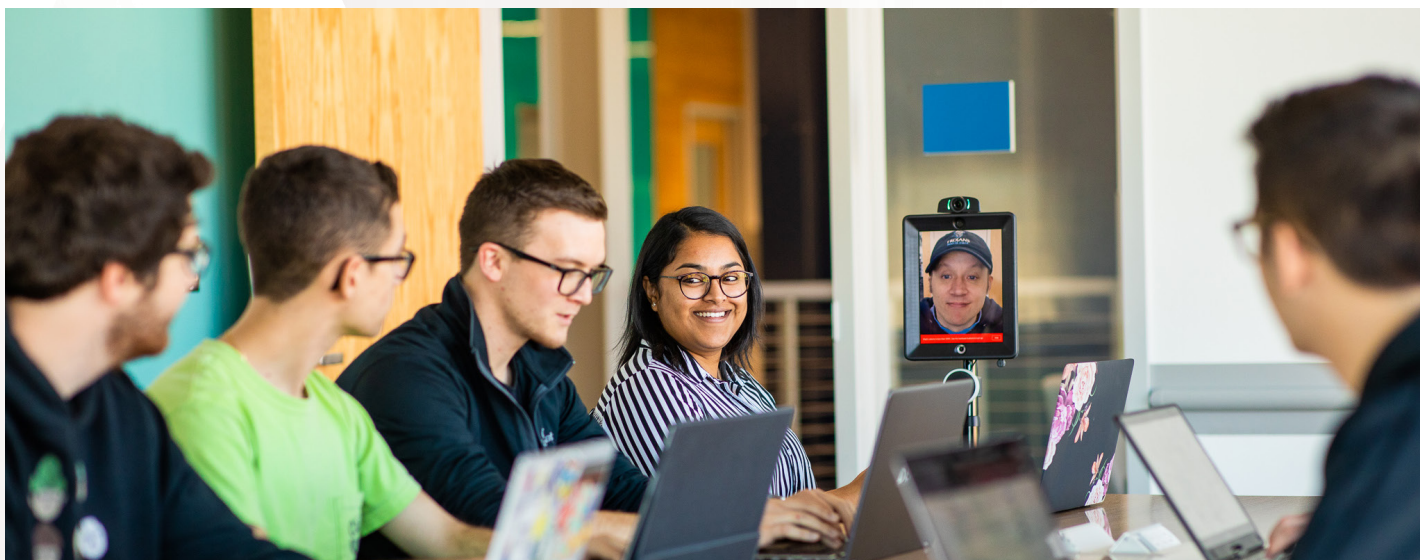
Mork was a long-time Madison businessman, philanthropist, and community leader. One honor he and his son DeLon were awarded included the South Dakota Retailer of the year award in 2004 for the family-run Dairy Queen.

### Ernest Teagarden Award for Excellence in Teaching

The Ernest Teagarden Award for Excellence in Teaching was presented to Dr. Mark Spanier, Associate Professor.

Spanier has a reputation for caring deeply about his students, and works diligently to design relevant, engaging activities. He uses inquiry-based projects and activities in his courses, which provide students with practical, relevant knowledge for their careers. His demeanor impacts the students with a positive energy that is contagious.

The award honors Teagarden, a professor emeritus of business at DSU. Teagarden served as Chair of the Social Science and Business Education Division and later of the Division of Business, Industry and Public Administration; he passed away in 2007. This award is sponsored by the DSU Foundation.





# FOR YOUR INFORMATION

## MISSION CHANGE

February 29, 2024



As we eagerly approach the 40<sup>th</sup> anniversary of the Mission Change at Dakota State University, we find ourselves reflecting on four decades of transformative education and innovation. This significant milestone serves as a testament to our commitment to fostering academic excellence, technological advancements, and a dynamic learning environment. As we prepare to celebrate this momentous occasion, the excitement is palpable, and we invite the entire Dakota State community to join us in commemorating this legacy. Stay tuned for more details on the upcoming festivities and events that will mark this special anniversary. We look forward to sharing the achievements and memories that have defined our institution over the past 40 years, and we encourage everyone to be part of this remarkable journey.

## DAKOTACON

March 22 - 24, 2024



DakotaCon, an acclaimed weekend-long cybersecurity symposium, marks over ten years of excellence. It showcases free public lectures by leading experts, alongside competitive activities and specialized training. Attracting over 1,000 cybersecurity students and a broad alumni base, DakotaCon stands as a distinctive forum for education, collaboration, and bolstering the industry. This event doubles as a unique homecoming, bringing together the Dakota State University community to foster growth in regional cybersecurity. It's a convergence of innovation, talent, and forward-thinking, emphasizing the importance of cybersecurity in today's digital world. DakotaCon not only educates but also inspires, making it a pivotal event in the cybersecurity calendar.

## DSUNITE

April 12, 2024



DSUunite, an annual fundraising event focusing on scholarship support for students at Dakota State returns, bringing together the DSU community and its supporters for a night of philanthropy and support. We invite you to join us at the Sioux Falls Convention Center for a dynamic evening of socializing, games, silent and live auctions, and more!

Scholarships are crucial to the growth of Dakota State University, as they provide deserving students with the resources they need to excel academically and make a lasting impact in their fields. At last year's event, 200 donors raised a record breaking \$510,000, with over \$100,000 raised from live and silent auction items.

Get your tickets today at [DSU.edu/dsunite](https://DSU.edu/dsunite)

## SEND US AN UPDATE

*We want to hear from you! Personal or professional, we love to hear how you are doing and what is going on in your life. Please visit [Trojansunite.org](https://Trojansunite.org) and use the contact us form or click or scan the QR code. While you're at the site, don't forget to stay up-to-date on all the latest DSU Foundation & Alumni news.*





## SUPPORT THE BEACOM COLLEGE OF COMPUTER & CYBER SCIENCES

Your support powers The Beacom College of Computer and Cyber Sciences at DSU. Join us in shaping future tech leaders and driving innovation. Give today to empower students and build a legacy of excellence in computer science and cybersecurity. Donate now by scanning the QR Code. Your contribution is instrumental in advancing education in technology and business at DSU.



## MAJORS & PROGRAMS

### UNDERGRADUATE

#### Bachelor

- Artificial Intelligence (BS)
- Computer Game Design (BS)
- Computer Science (BS)
- - Artificial Intelligence/Machine Learning (BS)
- - Software Engineering (BS)
- Cyber Operations (BS)
- Network and Security Administration (BS)

#### Associate

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

#### Certificate

- Creative Coding Certificate
- Cybersecurity Certificate
- High-Performance and Research Computing Certificate
- Network and Telecommunications Administration Certificate
- Network Services Certificate
- Object Oriented Programming Certificate
- Software Development Certificate

### GRADUATE

#### Doctoral

- Doctor of Philosophy in Cyber Defense (PhDCD)
- Doctor of Philosophy in Cyber Operations (PhDCO)
- Doctor of Philosophy in Computer Science (PhDCS)

#### Master

- Master of Science in Computer Science (MSCS)
- Master of Science in Cyber Defense (MSCD)
- Graduate Certificates
- Banking Security Graduate Certificate
- Cyber Security Graduate Certificate
- Data Privacy Graduate Certificate
- Ethical Hacking Graduate Certificate

#### Minors

- Artificial Intelligence & Machine Learning Minor
- Computer Science Minor
- Cyber Operations Minor
- Digital Forensics Minor
- High-Performance Computing Minor
- Mobile Application Development Minor
- Network Security Administration Minor

## ACCREDITATION INFORMATION

Dakota State University is accredited by the Higher Learning Commission (HLC), and is one of a number of institutional accreditors in the U.S. HLC accreditation indicates that DSU has the standards, processes, and assurance that it delivers quality educational experiences. DSU must meet 18 core components within the five HLC Criteria for Accreditation.

DSU completes periodic reviews for reaffirmation of accreditation through HLC's Open Pathway, a ten-year cycle with an assurance review in year four and a comprehensive evaluation in year ten. The Open Pathway also includes an improvement component, the Quality Initiative, that provides DSU the opportunity to pursue improvement projects that meet institutional needs.

DSU's undergraduate and graduate Cyber programs are accredited by the National Security Agency (NSA). NSA leads the U.S. Government in cryptology that encompasses signals intelligence (SIGINT) insights and cybersecurity products and services and enables computer network operations to gain a decisive advantage for the nation and our allies.

DSU is designated as the Center of Academic Excellence in Cyber Operations (CAE-CO), Center of Academic Excellence in Research (CAE-R), and Center of Excellence in Cyber Defense (CAE-CD). Universities designated as National Centers of Academic Excellence are eligible to apply for scholarships and grants through the Federal and Department of Defense Information Assurance Scholarship Programs.