SOUTH DAKOTA BOARD OF REGENTS

Items Referred to Two or More Committees

AGENDA ITEM: I – A

DATE: April 1-3, 2014

SUBJECT: Institutional Items of Information

Attached please find a copy of the Institutional Items of Information submitted by Black Hills State University, Dakota State University, Northern State University, South Dakota School of Mines and Technology, South Dakota State University, the University of South Dakota, the South Dakota School for the Blind and Visually Impaired, and the South Dakota School for the Deaf.

RECOMMENDED ACTION OF THE EXECUTIVE DIRECTOR

Information only.
BHSU will have Underground Campus at Sanford Lab

A site has been designated for a Black Hills State University Underground Campus at the 4,850-level of the Sanford Underground Research Facility in Lead.

BHSU President Kay Schallenkamp along with staff and students met with Mr. Mike Headley, director of the Sanford Lab, recently to view the site and discuss the opportunities this will create for students and faculty.

“This is a banner day for Black Hills State University and for our students,” Schallenkamp said. “The BHSU Underground Campus creates unparalleled opportunities for our students to have unique research experiences. It also recognizes the close relationship that the University has established with the Sanford Lab since it was established in 2007.”

“This new laboratory expands our capacity to host a variety of experiments deep underground,” Headley said. “It’s very exciting for us to be working with BHSU to make it a reality.”

The Underground Campus will include a cleanroom that allows students and faculty to conduct a variety of research projects including low-background counting physics experiments. The Campus will also accommodate other experiments such as biology and geology and provide storage for equipment.

The Underground Campus will give BHSU faculty and staff even more opportunities to collaborate with scientists from all over the world and participate in ground-breaking research according to Schallenkamp. When completed the underground space will be the site for research by BHSU undergraduate and graduate students. The site will be used for ongoing physics and biology research as well as include flexible space for future research across a variety of disciplines.

BHSU’s location less than 20 miles from the deepest underground lab in the U.S. has created a number of unique experiences for students and faculty.

Continued on page 2

BHSU geology class takes first underground field trip at Sanford Lab

A Black Hills State University geology class received a new perspective on the area’s geological formations when they spent a day in December touring the 300 level of the Sanford Underground Research Facility, the former Homestake Mine.

Dr. Abigail Domagall’s students were the first from BHSU to have an opportunity to go underground. “The students thought it was awesome. They have heard so much about the mine and about what it is becoming, and to actually get to go underground and see for themselves was like nothing else,” said Domagall, assistant professor of geology. The tour provided an ideal end to the semester-long course, she said. “There were lots of geological features that they could see and talk about.”

Continued on page 2
Underground Campus

Continued from page 1

- BHSU science faculty are trained to go into the lab and take samples for other scientists across the U.S.
- BHSU has been designated the lead Regental institution for the Sanford Science Education Center.
- BHSU serves as a Quarknet site, an educational program funded by the National Science Foundation and the Department of Energy to enhance physics education in high schools.
- BHSU students and faculty are currently preparing the lead bricks used in the MAJORANA DEMONSTRATOR physics research.
- Students and faculty are involved in physics, biology, geology, acoustics and other research projects associated with Sanford Lab.
- Every year a number of students complete internships at Sanford Lab in communications and photography as well as network and computer services internships.
- A group of business students are working with Sanford Lab officials to create marketing plans.

The Underground Campus is another example of the powerful partnership the University has with the Sanford Lab. The BHSU campus will house the Sanford Science Education Center. This collaboration will enable the University to combine its premier teacher program with cutting-edge research creating new opportunities in teaching math and science. Last summer, the University and Sanford Lab announced a $4.5 million project to convert the Jonas Science building on the BHSU campus into a facility to complement Sanford Lab’s education efforts in Lead. The South Dakota Science and Technology Authority (SDSTA), who owns and operates the Sanford Lab, is providing $2.5 million to the Jonas redesign, which will be part of the Sanford Science and Education Center. The donation is part of a $70 million gift from philanthropist T. Denny Sanford. The SDSTA is using much of Sanford’s gift to convert the former Homestake gold mine into a world-leading underground research laboratory.

Geology Field Trip

Continued from page 1

The Homestake Mine was the largest and deepest gold mine in North America until it closed in 2002. The historical landmark is now a federally supported lab nearly a mile underground where researchers are exploring some of the most challenging questions facing 21st century physics including the origin of matter, the nature of dark matter and the properties of neutrinos.

The accessibility of the lab provides a unique resource to local students, said Dr. Jaret Heise, science liaison director at the Sanford Lab. “It is a great supplement to their education,” he said. “Having these hands-on experiences will hopefully excite them more into whatever area they are pursuing.”

The students enjoyed the unique learning experience. “I’ve never thought I would be a part of something like this,” said Jeff Murray, biology major from Rapid City, noting that he developed a better understanding of SURF, as both a mine and lab.

Other students who attended the tour include: Alicia Kawalek, outdoor education major from Eagan, Minn.; Vanessa Lundgren of Spearfish; Sonja Merrow, psychology major from Saint Onge; Lizzy Wahl, psychology major from Rapid City; Anthony Boyd, mass communication major from Spearfish; Chase Dahl, mass communication major from Spearfish; Ida Clarke, environmental physical science major from Oglala; Garima Lohani, environmental physical science major from Kathmandu, Nepal; John Jarding, environmental physical science major from Rapid City; Rianna Hotz, environmental physical science and mass communication major from Hot Springs; and Rebecca Ernst, biology major from Black Hawk.

Rachel Headley, Science, Technology, Engineering and Mathematics (STEM) liaison, has been working with Sanford Lab to make the historical landmark more accessible to BHSU students of all disciplines. She has been working with the University’s music and mass communication departments to get students underground for various projects. There are several music students who are interested in using the mine and lab as inspiration for their compositions including one who is interested in taking an electronic organ underground.

Partnerships like these are a win-win situation for both the University and the lab, said Heise. “These students can turn around and be great ambassadors in the community for Sanford Lab.”
Project PRIME partnership receives 2013 Bush Prize for Community Innovation

Project PRIME (Promoting Reflective Inquiry in Mathematics Education), the decade-long effort of Black Hills State University, the Rapid City School District and the regional nonprofit Technology and Innovation in Education (TIE) to improve K-12 mathematics instruction, was one of nine projects awarded an inaugural Bush Prize for Community Innovation.

The Bush Prize for Community Innovation, presented by the Saint Paul-based Bush Foundation, honors and supports innovative organizations and projects with a track record of making great ideas happen. Along with the recognition, Project PRIME received more than $310,000 to be used to sustain and expand their work.

“We’re absolutely delighted to have received the Bush Prize. It affirms the success and strength of the long-standing partnership of Rapid City Area Schools, TIE, and Black Hills State University to improve the teaching and learning of K-12 mathematics,” said Ben Sayler, BHSU professor and a member of Project PRIME’s director team. “We’re eager to continue learning together and to expand our work together for years and years to come.”

Since 2002, project partners have been working to improve the teaching and learning of K-12 mathematics within Rapid City area schools, to strengthen teacher preparation at BHSU, and to create a vibrant professional learning community across all three organizations.

According to the Bush Foundation, Project PRIME is a true collaboration in which each institution has changed – shifting and refining their approach - to become more effective together to achieve breakthroughs in mathematics teaching and learning.

Two alumni honored with Presidential teaching award

Two Black Hills State University graduates of the Master of Science in Curriculum and Instruction program were among more than 100 educators nationwide to receive the Presidential Award for Excellence in Mathematics and Science Teaching.

Ann Anderson, Belle Fourche fifth-grade science teacher, and Erin Marsh, math teacher at the Pierre Indian Learning Center, were the two South Dakota educators honored with the award, the nation’s highest honor for K-12 teaching in these fields.

“We are excited to see that our BHSU Math Specialist and Science Specialist graduates are being recognized for their impact on P-12 student learning and for their impact on the way math and science are taught in schools,” said Dr. Pat Simpson, dean of the College of Education and Behavioral Sciences at BHSU. “We congratulate them and the BHSU Center for the Advancement of Math and Science Education (CAMSE) for truly making a difference!”

Winners, two from each state, get a $10,000 award from the National Science Foundation to be used at their discretion. They are also invited to Washington for an awards ceremony and several days of educational and other events, including visits with members of Congress and the Obama administration. Both Marsh, Class of ’12, and Anderson, Class of ’10, said they are humbled and grateful for the national honor and recognize how their BHSU education has helped to earn them the prestigious awards.

Marsh said she has implemented many of the research-based best practices she learned at BHSU into her daily math lessons. “I have to honestly say these practices definitely attributed to earning this award.”

Anderson credited winning the award to the outstanding students, parents and staff she works with in Belle Fourche. “The award illustrates my passion for continued learning which is prevalent in a teacher’s career. I believe more teachers should be recognized for their hard work and dedication to the profession.” She added that such a prestigious award would not have been possible without the many professors she had during her time at BHSU.
Black Hills State University is continuing to make progress on its sustainable practices achieving a ten percent reduction in greenhouse gas emissions per square foot of campus and increasing recycling to 35 tons. The University has a goal of meeting carbon neutrality by 2050.

“Our campus has grown over the past few years, but our carbon footprint hasn’t,” said Katie Greer, BHSU sustainability coordinator. “The 2012 carbon footprint report shows a 9.7 percent reduction in emissions per square foot of campus building space and a 12.2 percent reduction in emissions per full-time equivalent number of students.” During fiscal year 2012, BHSU also recycled more than 35 short tons of materials that would have otherwise been sent to a landfill, Greer said.

BHSU completed its most recent carbon footprint report which showed that emissions as a result of University activity in 2012 totaled 13,279 metric tons of carbon dioxide equivalent.

This represents annual greenhouse gas emissions from 2,766 passenger vehicles or 4,973 tons of waste sent to the landfill.

Reporting the University’s carbon dioxide emissions is a requirement of the American College and University Presidents’ Climate Commitment (ACUPCC). BHSU President Kay Schallenkamp signed the President’s Climate Commitment in 2007, pledging that the University will work toward carbon neutrality by the year 2050. BHSU was the first South Dakota university to sign ACUPCC.

The first step in achieving the goal of carbon neutrality is accounting for the carbon emitted by the University. BHSU records the carbon dioxide emissions in three scopes. The first is from direct emission sources which includes the natural gas used to heat buildings. The second scope is from purchased emissions such as electricity, and the third scope covers several indirect sources of emissions including waste sent to landfills; commuting by faculty, staff and students; paper purchases; waste water; and University-funded travel by air, ground or bus.

“We work to bring these numbers down by such things as retrofitting buildings to be more energy efficient and diverting waste from landfills by recycling,” Greer said.

During last month’s final home basketball game for the Yellow Jackets, Black Hills State University faculty, staff, students and community members participated in their own competition – recycling.

BHSU is one of several universities across North America participating in Recyclemania, a competition and benchmarking tool for college and university recycling programs to promote waste reduction activities to their campus communities. BHSU chose Saturday’s game against University of Colorado – Colorado Springs, also Throwback Night, to work to recycle and divert the most waste from the landfill as possible. Each University can choose their own event in the one-day Recyclemania Game Day portion of the competition.

“From one day’s game, we collected 325 pounds of total waste from the lobby, fan seating area, VIP section, bathrooms, laundry room, and concessions,” said Katie Greer, BHSU sustainability coordinator. “Of that, we were able to divert 252 pounds or 77.5 percent of that waste from going to the landfill.”

The waste collected included: 133 lbs of plastics and aluminum bottles; 31 lbs of cardboard; 54 lbs of other plastics including empty laundry soap containers; and 34 lbs of food and paper. Of the 325 pounds of waste collected, 73 pounds of non-recyclable materials including diapers, candy wrappers, gum, wax paper cups, and Styrofoam had to be thrown away.

BHSU students Samantha Starkey, exercise science major from Lusk, Wyo., and Brady Licht, English education major from Rapid City, guided people with trash collection and then sorted and weighed the waste at the end of the two games.

BHSU graduate Markus Heinrich, who started his company Cans 2 Cans Recycling while a student, brought four of his can crushers to the game. Coca Cola also donated signs for the event that will be recycled for future years.

The waste was processed Sunday with the University’s Somat machine, a system that takes leftover food and dehydrates, compacts and sterilizes the food so that it can be used for mulch. “Dining Services does this every day with food waste left on plates at the Hive, the BHSU dining area.”
Student photographer documents daily life of troops in Afghanistan

Julianne Morse finds it difficult to think of the exact words to describe her recent experience as a photojournalist in Afghanistan. She lets her photos tell the story.

The Black Hills State University photography student from Spearfish recently returned from a nine-month deployment with South Dakota’s National Guard 129th Mobile Public Affairs Detachment where she teamed up with a broadcast journalist and documented the daily lives of the troops.

Morse’s deployment was unlike other National Guard units who are usually based at one location. “I got to travel a lot being a journalist embedded with a lot of different units, infantry, cavalry, some artillery, and some just administrative type units, and help to the tell the story of what they are doing.”

Morse worked closely with the U.S. Army as well as the Afghan National Army, Afghan local police and Afghan border police.

Her photos were either sent to the public affairs officers of each of the units she was embedded with and then passed on to the soldiers who shared it with their families, or added to the Department of Army wire service.

Two of her photos from one of her foot patrols were picked up by Time.com.

BHSU ranked among the Best for Vets: Colleges 2014

Black Hills State University has once again been ranked as one of the nation’s top institutions when it comes to services and programs for America’s student veterans. Military Times announced its “Best for Vets: Colleges 2014” rankings last fall with BHSU making the list for the second year in a row.

BHSU received the same distinction last fall, and in March the University was ranked among the Best for Vets for business schools, an honor also put out by Military Times. In September, BHSU was named to the 2014 list of Military Friendly Schools by Victory Media for being among the top 15 percent of schools nationwide that are most dedicated to supporting America’s service members and veterans as students.

BHSU, which has the highest percentage of veteran students among South Dakota’s public universities, has a long history of working with the military to provide educational options for veterans and active military people.

Scrubs Camp engages high schoolers in healthcare opportunities

More than 50 high school students from around the Black Hills had an opportunity to explore the various healthcare careers during a recent Scrubs Camp at Black Hills State University.

Despite the wintry weather, 51 students attended the day-long event sponsored by the South Dakota Department of Health, according to Hasina Ahmad, BHSU distance education coordinator.

“We are facing a serious shortage of healthcare providers in our country, particularly in South Dakota,” Ahmad said. “The South Dakota Department of Health has taken the initiative to make the high school students aware of the challenges, opportunities and benefits of the healthcare professions. Scrubs Camp is an important aspect of that effort, and we, at BHSU, are very proud to be a part of that effort.”

Students heard from professionals in a variety of healthcare fields including physical therapy, dental hygiene, pharmacy, radiology, nursing, respiratory care, diet and nutrition, healthcare finance, psychology, and pediatric and adolescent medicine. This was the first year for healthcare finance and pediatric medicine. “I try to add new topics every year,” Ahmad said. They also had a chance to experience many hands-on activities throughout the day.

Camps are held throughout the state, and each one is tailored to the interests of the students in that area. Ahmad also noted that Linda Daugaard, the first lady of South Dakota, has taken personal interest in the statewide Scrubs Camps as a way to promote Science, Technology, Engineering, and Mathematics (STEM) education.
BHSU students take home several awards including Best in Show during recent ADDY awards

The creativity of Black Hills State University graphic design and photography students was recognized during the annual Black Hills American Advertising Awards with students taking home 15 ADDYs including Best in Show.

Orlando Munoz, graphic design communication major from Rapid City, received the Student Best in Show for his design Presidential Stamps. Makena Peet, art major from Rapid City, was the runner-up Student Best in Show for Illuminated Letter.

“It is always a pleasure seeing our students reap the rewards of their hard work,” said Gina Gibson, BHSU assistant professor of mass communication. “This is a great resume builder and an opportunity to make connections with the professionals in the area.”

Many advertising professionals at the event commented on the caliber of the student’s work.

“The professionals went out of their way to serve our students,” Gibson said. “I want to thank Simpsons Printing for printing the student entries, Message for paying for students to attend the gala, and the board and members of the AAF-Black Hills for being so open and giving of their time and resources.”

This is the second year the American Advertising Federation (AAF)-Black Hills American Advertising Awards incorporated a student division into the competition. The competition is the industry’s largest and most representative competition for creative excellence. The awards are determined by professionals in the industry. The 2013/2014 ADDYs were judged by nationally recognized creative directors from Denver/Boulder, Colo., firms Karsh Hagan, Made Movement, and Victors & Spoons.

Other BHSU student award winners include:

- **Orlando Munoz** – graphic design and communication major from Rapid City, Gold Award in Integrated Campaign – Consumer for Lomo Clothing Campaign, Gold Award in Elements of Advertising–Illustration/Single for Illuminated Letter, and Runner-Up Student Best of Show for Illuminated Letter;

- **Tana Rae Hersch** – graduate, Silver Award, Sales Promotion-Point of Purchase for Sage Bistro, and Silver Award, Collateral Material-Brochure/Annual Report for Travel India;

- **Shelby C. Best** – mass communication major from Joseph City, Ariz., Gold Award, Elements of Advertising, Visual-Illustration-Single for Goldfish, and Silver Award, Collateral Material-Stationary Package for Bee Hive;

- **Allison Polski** – corporate communication major from Rapid City, Silver Award, Direct Marketing for Vintage Pin-Up Stamps;

- **Makena Peet** – art major from Rapid City, Gold Award in Integrated Campaign – Consumer for Lomo Clothing Campaign, Gold Award in Elements of Advertising–Illustration/Single for Illuminated Letter, and Runner-Up Student Best of Show for Illuminated Letter;

- **Anthony Petrone** – mass communication major from Spearfish, two Gold Awards, Elements of Advertising-Visual-Photography-Black & White for Untitled 1 and Untitled 2;

- **Laura Howard** – mass communication major from Belle Fourche, Gold Award, Elements of Advertising-Visual-Photography-Black & White for Sunday Brunch;

- **Joseph Geyer** – mass communication major from Rapid City, Gold Award, Elements of Advertising-Visual-Photography-Color for Peeling Away the Beauty;

- **Cody Wiseman** – graduate, two Silver Awards, Elements of Advertising-Visual-Photography-Digitally Enhanced for Taking Control and What Comes Next?

- **Lorena V. Sumcio** – business administration major from Spearfish, Silver Award, Elements of Advertising-Visual-Photography-Digitally Enhanced for Mandela.
Brian Shaw, former Yellow Jacket basketball player, 2004 graduate and 2011 and 2013 World’s Strongest Man, returned to the court he once played on last fall to accept the 2013 Young Alumni Achievement Award. He was presented the award during halftime of the men’s basketball home opener.

“It’s awesome,” Shaw said of being presented with the award. “Anytime you can get honored from the University you attended for an achievement after you have graduated – it’s really a big honor.”

The Young Alumni Achievement Award is presented to alumni who have attended BHSU within the last 10 years and have distinguished themselves with outstanding achievements, contributions and service to society, the community, and the University.

Prior to accepting his award, Shaw, who earned his wellness management degree from BHSU, spent nearly two hours signing autographs and chatting with BHSU faculty, staff, alumni and community members.

“It’s been fun being in this environment again,” said Shaw, who has not been back to BHSU since graduating. The campus has changed quite a bit, according to Shaw, but so has the former Yellow Jackets basketball player. Transforming from a 6’8” 280-pound basketball player to a 420-pound professional strongman, Shaw has been dominating the strongman world, building a successful business, creating training products and booking appearances across the country.

His latest strongman title came in September when he deadlifted 975 pounds to secure his place as the 2013 World’s Strongest Man, earning the title for the second time in three years.

Alumni Center named for BHSU graduate and longtime supporter

Joy Krautschun’s legacy and longtime support of Black Hills State University will be honored through the Joy (Proctor) Krautschun Alumni/Foundation Welcome Center.

Joy, who passed away last fall at the age of 62, was a 1973 graduate of BHSU and who was instrumental in starting and coaching the University’s first varsity women’s basketball team. Even after her time at BHSU, Joy, and her husband Harvey, continued their service and support to the University.

“She loved this University. Even up until the end of her life she was always talking about BHSU,” said Steve Meeker, vice president of University Advancement. “I can’t think of a better person to have the alumni center named after than Joy.”

The new Joy (Proctor) Krautschun Alumni/Foundation Welcome Center is currently under construction and will be completed this year. When completed the 5,800-square-foot building will house the University Advancement offices; provide a gathering area before games, concerts, and other University events; showcase the past, present and future of BHSU; accommodate community events such as business meetings and receptions; and introduce community members to what the University is doing.

“It is fitting that the alumni/foundation center be named for Joy. She epitomized the qualities of service and commitment that BHSU alumni hold for their alma mater,” according to BHSU President Kay Schallenkamp. “The naming recognizes the love she had for BHSU and memorializes the contributions she made as a student and as an alumnus.”

Despite their hectic lifestyle of running a local financial services business, raising their two kids, coaching, and hauling their children to various sporting events, Joy and Harvey always dedicated time and energy to their alma mater. Joy served many years on the BHSU Alumni Association Board. In 2007, Joy was honored with the Special Service Award, and in 2009 the couple served as the Swarm Day parade marshals.

Joy’s involvement with the University developed into a lifetime of love and passion for the students, faculty, and BHSU events.

“Joy was one of the best volunteers we’ve ever had,” Meeker said. “You could count on her for anything and everything.”
BHSU faculty and staff transform lives

Black Hills State University faculty and staff are transforming lives and making headlines.

**Steve Babbitt**, professor of photography, and BHSU graduate Matt Kapust had several of their photographs featured in a recent issue of *High Country News*. The photographs accompanied an article titled “Cosmic Prospecting: What happens when an old mining town recruits Big Science?” The article is about the transformation of the Homestake Mine into the Sanford Underground Research Facility. Kapust began working at the Sanford Lab while attending BHSU. He is now the lab’s multimedia specialist.

**Dr. David Scarborough**, professor of human resource management, had his symposium/forum submission “Big Data in I-O Psychology” accepted for presentation at the 2014 Society for Industrial & Organizational Psychology (SIOP) Conference. As stated on the SIOP website, industrial-organizational (I-O) psychology is the scientific study of the workplace.

**Dr. Ignatius Cahyanto**, assistant professor of tourism and hospitality management, along with two student research assistants spent several months conducting a baseline study examining the perceptions of tourism businesses with regard to the pine beetle infestation and their preventative behaviors.

Cahyanto presented the findings at the World Research Summit for Tourism and Hospitality in December in Orlando and also plans to submit the paper for presentation at the 2014 Travel and Tourism Association Annual Conference in Bruges, Belgium, in June.

**Don Altmyer**, professor of accounting, was presented with the Outstanding Research Award at the Global Conference on Business and Finance held in Honolulu earlier this year. Altmyer, along with his fellow BHSU co-authors

Dr. Ken Schallenkamp, professor of business law, Dr. Ron DeBeaumont, professor of economics and chair of the School of Business, and former BHSU business professor Dr. Sheng Yang, presented their paper *Student Ethical Awareness as Effected by Gender and Grade Point Average* during the conference.

**Dr. Adam Bailey**, assistant professor of management, had his paper “Anti-Discrimination Law, Religious Organizations, and Justice” accepted for publication in the scholarly journal *New Blackfriars*.


**Dave Diamond**, professor emeritus in journalism, was recently awarded the annual South Dakota State Poetry Prize. Diamond’s poems will be featured in an upcoming chapbook published by the South Dakota State Poetry Society.

**John Rombough**, assistant Facilities Services director, was recently honored by the South Dakota Employer Support of the Guard and Reserve (ESGR) with the Patriot Award, a recognition of his contribution to national security through his support for military employees.

### BHSU ‘Dancing with the Staff’ event raises more than $500 for Rancher Relief Fund

Nearly 200 BHSU faculty, staff, students and community members were present to cheer on their favorite dancing duo at the first annual “Dancing with the Staff” fundraiser.

The event, sponsored by the BHSU University Programming (UP) student organization, raised $530 for the South Dakota Rancher Relief Fund, a fund established last October to provide support and financial assistance to those in the agriculture industry impacted by Winter Storm Atlas.

The competition featured eight teams comprised of BHSU faculty and staff from various University departments paired with students from the BHSU dance team and swing dancing club.

The overall winners of the night were Jane Klug, director of the Student Union, and her partner Dustin Hull, history major from Rapid City, dancing the Charleston. The couple dressed in 1920s fashion - the era the dance originated.

The overall winners of the night were Jane Klug and her partner Dustin Hall, history major from Rapid City, dancing the Charleston. The couple dressed in 1920s fashion – the era the dance originated. Each audience member also voted on their favorite couple and the People’s Choice award went to Melissa Haught, student success advisor, and Teddy Langhout, outdoor education major from Woodbury, Minn.
The future of DSU: the Beacom Institute of Technology

T. Denny Sanford and Miles Beacom have pledged to donate $5 million to DSU to help renovate the current Madison Community Hospital into what will become the Beacom Institute of Technology building.

For Beacom, the tie to DSU is a personal one, as he graduated from Dakota State College (DSC) in 1981 with a Bachelor of Science degree in business with a minor in economics. Beacom credits his education at Dakota State for his success today as President and CEO of Premier Bankcard.

With the gift, the University plans to assist even more students in reaching their goals by providing them with a state-of-the-art technology facility.

DSU Gala

DSU’s Annual Foundation Gala was held on Friday, February 28. We had over 225 in attendance and set a new fundraising record for a single event. All of these funds will be put to great use as part of our Champion Scholarship Program. Dave, class of 1976, and Jill Bockorny contributed $15,000 toward the event.

DakotaCon, South Dakota’s premier security event, returned to the Dakota State University campus on Friday, March 7th through Sunday, March 9th. Once again, DSU brought the best and brightest cybersecurity individuals together for three full days of talks, competitions, and trainings. More than 250 people attended the event which was sponsored by the SANS Institute, DSU Center of Excellence in Computer Information Systems, First Bank and Trust, Citi bank, First Premier Bank Bankcard, SDN Communications, SPAWAR, Daktronics, Sanford Health, Solutionary and the Dakota State University Alumni Association.
Student Successes:

For the second year in a row, the cyber defense talents of the Dakota State University CCDC team achieved a landslide victory during the North Central Regional **Collegiate Cyber Defense Competition (CCDC)**. The DSU team members consist of eight students; Christopher Paschen, Steve Secker, Andrew Kramer, Cody Welu, William Hofer, Benjamin Cable, Alexander Gartner and Jesse Mendez. As the winner of the event, the DSU team receives an all-expense paid trip to the National CCDC event, April 25-27, in San Antonio, Texas. There, the DSU team will compete against nine other regional CCDC teams from around the nation.

Five Dakota State University students were recently awarded top honors in a Game Narrative Review competition for the **Game Developer’s Conference (GDC)**, to be held in San Francisco in March 2014. DSU student, Mostafa Haque, a sophomore majoring in game design, won one of three Platinum level awards, for which he will receive a free All-Access pass to GDC, which is the largest professional game design conference in the industry. Four other students, Andrew Koerner, a senior English major from Freeman, S.D.; Sean Daily, a senior game design major from Burnsville, Minn.; Zachary Truesdell, a senior game design major from Soldotna, Alaska; and Mariah Beem, a senior game design major from Baltic, S.D.; won Gold-level awards.

The DSU cyber security team clinched the first place position in the **National Cyber League’s (NCL) Fall Post Season National Championship Standings**. The DSU student team beat out over 50 other collegiate teams for top honors. During the event, the teams are broken down into three brackets. The Bronze bracket consists of novice players, the Silver bracket includes intermediate players, and the Gold bracket for the experienced players. This year, DSU was in the Silver bracket but beat out gold teams for the championship honor.

Chelsea Meyer, Digital Arts and Design major, took second place in the **Brookings Arts Council 34th Open Photography Exhibition**.

Seth Boomsma has had a fantastic year for the DSU Indoor track team. He was the only competitor from the NAIA to be invited to the **NCAA track meet** at Iowa State. He took second place behind a University of Florida runner in the 60 meter dash. He then went on to the NAIA National Championships and earned second place again in the 60 meter dash.

Three Dakota State players were selected to the **inaugural North Star Athletic Association Men’s Basketball All-Conference** selections and postseason awards. Dylan Hale and Yusuf Vinson were voted to the NSAA Men’s Basketball All-Conference First Team. Miguel Sansavour was named to the second-team and voted as the conference’s Defensive Player-of-the-Year.

Kylie Westover and Alyson Drooger of Dakota State were chosen to the **inaugural North Star Athletic Association (NSAA) Women’s Basketball All-Conference** Second Team, announced Tuesday evening after the conclusion of the NSAA women’s basketball postseason conference championship game. Drooger also was named to the NSAA Defensive Player-of-the-Year.
Governor endorsed DSU’s Cyber Security Lunch and Learn Series

Dakota State University, along with support from the Cyber Security Industry Advisory Board, launched an initiative to showcase exciting careers within the area of cyber security in the state of South Dakota. The series has already hosted Jim Edman from the South Dakota Bureau of Information and Telecommunications, Philip Egeberg from Daktronics, Inc., and William Bushee from BrightPlanet. The spring series features Andy Deinert from Vantage Point on March 18, and Amos Aesoph from SDN Communications on April 1.

S.D. Gov. Dennis Daugaard endorsed the program and recognized the importance it serves for both students and employers.

“South Dakota has many career opportunities in Cyber Security, in the private sector and also in government,” said Gov. Daugaard. “Attend Dakota State University’s Cyber Security Lunch and Learn Career Series and learn about exciting careers in our own backyard. My sincere thanks to Dakota State University and Secure Banking Solutions for their efforts to promote careers within the state of South Dakota.”

Dr. Ashley Podhradsky, Assistant Professor of Information Assurance/Forensics and co-chair of the Cyber Security Industry Advisory Board, helped to create the series with Jon Waldman of Secure Banking Solutions as a way for DSU students currently enrolled or interested in cyber security to gain awareness of the increasing opportunities in South Dakota.

“There are many exciting positions in the area of cyber security in South Dakota. There is no need to leave the state to be able to have a cutting edge career in cyber security,” said Podhradsky.

All sessions are held in East Hall 100 starting at 12:15. Free pizza is provided to attendees compliments of Secure Banking Solutions.

DSU professor on “Top 15 Cyber Security Professors” list

DSU professor, Dr. Josh Pauli, is featured as one of the “Top 15 Cyber Security Professors” on the Forensic Science Education blog on the Forensic Colleges & Universities website. The list is comprised of outstanding professors in the cyber security field.

The individuals on the list were selected based on at least one of the following criteria: extensive law enforcement or police agency experience, a graduate-level education, or workshop and training experience.
DSU joins the HIMSS Academic Organizational Affiliate program

Dakota State University is excited to join with the Healthcare Information and Management Systems Society through the new national HIMSS Academic Organizational Affiliate program. HIMSS is a global, cause-based, not-for-profit organization focused on better health through information technology (IT). This program provides a way to share industry knowledge and educate DSU students on critical issues that will help them succeed in health IT. Faculty and students will have exclusive access to unsurpassed educational content and educational tools to enhance student learning and research, industry news with an improved awareness and understanding of health IT initiatives, networking opportunities and discounted resources.

Dr. Dorine Bennett, Program Coordinator for DSU’s Master of Science in Health Informatics (MSHI) online graduate degree program is very pleased at the advantages this affiliation will provide. Bennett said, “The HIMSS resources available to DSU as an affiliate will contribute to the content of our MSHI courses and the students will benefit professionally from the career development and networking prospects.”

The MSHI program, which began at DSU in 2009, is intended to produce master’s-prepared health informatics professionals for administrative, research, and/or applied health informatics positions.

For more information on DSU’s MSHI program, visit www.dsu.edu/mshi.

Madison Hosts the Legislature

This past February, DSU and Madison went to Pierre and met with the Governor and Legislators during our annual trip for “Madison Hosts the Legislature.” More than 100 participated in the event, including over 20 DSU students. 99 Legislators and people from the Capitol joined us for the evening reception. Our student exhibitions included 3-D printers, animation examples, audio production displays, and photography club students took pictures.

Dakota State University
2013 Overall Placement Rate
95%

Program highlights:

Elementary Education
96%

Computer & Network Security/
Network & System Administration
100%

Professional Accountancy
100%

Business Administration
95%

Health Information Technology
100%

Respiratory Care (Associate & Bachelor)
100%
NSU ranked No. 2 in South Dakota for online affordability

Northern State University was ranked second in affordability among South Dakota colleges and universities offering online programs.

Affordable Colleges Online, a website that provides students with information about affordable higher education options, recently announced the rankings. AC Online identified the colleges and universities in South Dakota with the most affordable online degree programs, focusing specifically on distance learning options from public and private nonprofit institutions with full accreditation.

The rankings, found at www.affordablecollegesonline.org/online-colleges/south-dakota/, include the following highlights about NSU’s online program:

- Master’s, bachelor’s and associate’s degrees are available online.
- Degrees can be earned in anything from teaching to marketing to gerontology.
- NSU features the biggest guaranteed four-year scholarship in the region, the WolfPACT.

“For-profit schools no longer dominate the distance-learning landscape,” said Dan Schuessler, founder and CEO of AC Online, in a news release. “So many of today’s top universities have added full online degree programs to their catalogs, making it much easier for nontraditional students to receive a quality education.”

Schuessler continued, “Offering students great online programs is only half the battle. The colleges on our list offer students quality, flexibility and affordability.”

NSU plans greenhouse for research, plant studies

A new greenhouse could soon be home to plant studies at Northern State University. The South Dakota Board of Regents on Dec. 4 gave initial approval of plans for an approximately 960-square-foot greenhouse next to the MeWaldt-Jensen Building on the NSU campus.

Since 2008, NSU’s biology and environmental science majors have increased by 66 percent. The greenhouse will allow year-round, hands-on plant study, laboratory instruction and research. Plants currently are kept in teaching labs or a lab preparation area, which has limited space and does not provide an optimal learning experience.

“A campus greenhouse is vital to our ongoing university research activities,” said NSU President James Smith. “The majority of active scientific research conducted by faculty and undergraduates at NSU is currently in the area of biology and environmental sciences.”

Plans outline a multi-chambered facility with a general use area and several separate rooms, one of which would provide a secure area for transgenic research. Other faculty research includes mosquito control, water quality, environmental genetics, and the effect of contaminants on vertebrate embryos.

“A greenhouse with designated space for use with transgenic crop plants is critical to NSU’s ability to play an active role in support of the state’s emphasis in the areas of biotechnology, including research and preparing students for advanced degrees in plant and animal bioscience, as well as value-added agriculture,” said Smith. Additionally, the greenhouse will provide a “living classroom” for science education majors. These future science teachers will now be able to study plant propagation, plant genetics, hybridization, soils, agriculture and many other aspects of botany. Their work within the greenhouse will give them firsthand knowledge that they can share in authentic, hands-on science lessons with middle school and high school students.

“…”A campus greenhouse is vital to our ongoing university research activities…”

The estimated $750,000 cost of the project would be funded through South Dakota’s Higher Education Facilities Fund, money that’s set aside as a percentage of certain tuition and fees for facilities. NSU received an additional allocation of HEFF funds to be used specifically for this greenhouse project.

Smith said the greenhouse will be a key component of NSU’s growth strategy, and will support South Dakota’s 2020 Vision by increasing the STEM talent base and providing tools to foster innovative ideas in energy and the environment, human health and nutrition, and plant and animal bioscience.

NSU, other public universities rewarded for research innovations

A $42,154 state grant awarded to Northern State University will pay for scientific instruments to upgrade chemistry laboratories, providing numerous new research possibilities for the university.

The equipment will allow NSU researchers to expand existing projects, open doors for future research, and provide undergraduate students with hands-on experience that will better prepare them for jobs and advanced science degrees.

“The new equipment will enable NSU scientists to build upon early research
New academic advisors join staff at Northern State University

Five new academic advisors have joined the staff of Northern State University, and a sixth will be hired in the coming weeks.

All are being hired with funds from a federal grant NSU has been awarded to overhaul its academic advising system.

The following people began working as academic advisors at NSU in January and February:

• Abby Exner works with students in the School of Education and students in the College of Arts and Sciences with majors in the department of languages, literature and communication studies. Exner is a native of Morris, Minn., who previously worked in the NSU registrar’s office. She received her bachelor’s degree from the University of North Dakota and her master’s degree in guidance and counseling from the University of Alaska Fairbanks, where she also worked as an academic advising intern.

• Tracy Jurgens works with students in the School of Fine Arts. Jurgens is an Aberdeen native who graduated from Huron High School and NSU. She brings a wealth of experience to the position from her almost 30 years working as senior secretary of the School of Fine Arts, where her duties included advising music students.

• Travis Parisi works with students with majors in the School of Education. Parisi is originally from Saratoga Springs, N.Y. He moved to Aberdeen from Springfield, Mass., where he spent two years as a football graduate assistant while working on his master’s in education with a concentration in school counseling.

• Krystle Perkins works with students in the College of Arts and Sciences with majors in the department of history, sociology, political science and geography. Perkins, a native of Coushatta, La., received her master’s degree from the University of Kansas and is currently working toward her doctorate in medieval history through that university. Perkins, who is also an adjunct professor at NSU, has taught history at the university level since 2003 at various places in the U.S. and abroad.

• Rebeccah Lutz advises students in the College of Arts and Sciences with majors in the department of biology, chemistry and physics, and mathematics. A native of Akaska, Lutz received her bachelor’s degree in business economics and consumer affairs from South Dakota State University. She has worked as an executive team leader in the human resources field and served as a resident assistant and orientation leader in college. Northern’s new advisors were chosen from a pool of more than 50 applicants, said Steven Rasmussen, director of NSU University College, which coordinates the academic advising program.

NSU will also hire an advisor for American Indian students.

‘A whole new program’

The overall goal of the grant – a five-year, $1,924,640 award from the U.S. Department of Education – is the creation of a more proactive, career-centered academic advising system. Hiring the new advisors is setting the stage for implementation of this new system, Rasmussen said.

“It’s a very exciting change,” Rasmussen said. “This is a whole new program.”

Faculty members still will act as mentors for their students, but the academic advisors will reach out to students rather than wait for them to stop in their offices.

The new advisors are located within their specific departments, though the American Indian advisor will be located in University College. Freshmen who have declared majors now will be advised by the academic advisor in their chosen majors. Undeclared students still will be advised by University College.
**Symphony continues tradition of bringing in renowned string players**

When Stephanie Chase visited Northern State University this spring, she was the fourth acclaimed string player to perform with the Aberdeen University/Civic Symphony since 2010.

Chase, an internationally renowned violinist, performed at the AUCS winter concert on March 1 and in a chamber music concert on Feb. 27.

She followed Gregory Maytan, who visited in 2010, and Rachel Barton Pine, who visited in 2012. Both, like Chase, are internationally renowned violinists. In 2013, celebrated cellist Wes Baldwin performed with the AUCS.

It’s a tradition that Dr. Robert Vodnoy, orchestra conductor, hopes to continue, with the help of the Friends of the Aberdeen University/Civic Symphony. The work of this volunteer board is what makes visits by guest artists possible.

“Bringing in these musicians is a way to enrich the strings curriculum and build the orchestra program and its presence in the community,” said Vodnoy, NSU director of orchestra and professor of strings and history.

Each musician who visits not only performs with the orchestra, but also teaches local music students. Chase, for example, held a master class with college violinists at NSU. She also visited Aberdeen Central High School on Friday, where she performed with the CHS orchestra and put on another master class. The CHS Music Boosters helped to support Chase’s residency.

This is not Chase’s first performance with Vodnoy. They performed Samuel Barber’s “Violin Concerto” together with the Northwest Indiana Symphony in 1992 in Orchestra Hall in Chicago, Ill. Chase plays a 1742 Petrus Guarnerius violin, which is noted for its power and beautiful tonal qualities.

“Performing with Stephanie on the stage of one of the great concert halls of the world was thrilling,” Vodnoy said, “and I am looking forward to performing the Mendelssohn Violin Concerto with her. Stephanie’s glowing tone and profound musicianship will bring out the glories of this rich, romantic concerto.”

‘One of the violin greats of our era’

Internationally recognized as “one of the violin greats of our era” by Newhouse Newspapers, Chase has had solo appearances with more than 170 orchestras including the New York Philharmonic, Chicago Symphony, San Francisco Symphony, Atlanta Symphony, Hong Kong Philharmonic and London Symphony Orchestra.

Her interpretations are acclaimed for their “elegance, dexterity, rhythmic vitality and great imagination” (Boston Globe), “stunning power” (Louisville Courier-Journal), “matchless technique” (BBC Music Magazine), and “virtuosity galore” (Gramophone). Chase is a top medalist of the International Tchaikovsky Competition in Moscow and is a recipient of the Avery Fisher Career Grant.

First violin teachers for Chase - who was born in Illinois - were her mother and her father, Bruce Chase, who was a noted music arranger and composer as well as a violinist. At age 2 she was already performing in public, and she made her debut with the Chicago Symphony six years later as the youngest-ever winner of the orchestra’s youth competition.

She made her Carnegie Hall debut as soloist with the National Orchestral Association at age 18. Shortly thereafter, she became a pupil of the Belgian violinist Arthur Grumiaux.

Chase is a professor of violin at the Steinhardt School of Culture, Education, and Human Development at New York University. She gives master classes at music conservatories throughout the United States, including The Juilliard School, the Shepherd School at Rice University, the University of Texas at Austin, Oberlin Conservatory and the San Francisco Conservatory.

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Equally at home in the virtuoso’s repertoire, historically informed performance practice and contemporary music, Chase offers a diverse repertoire of more than 60 concertos and large works for violin and orchestra and has collaborated with conductors such as Zubin Mehta, Leonard Slatkin, Herbert Blomstedt, Marin Alsop, Enrique Diemecke, Hugh Wolff and Stanislaw Skrowaczewski.

**March 1 Concert**

The AUCS winter concert, “Musical Adventures,” began at 7:30 p.m. March 1 in the Johnson Fine Arts Center theater. It featured three romantic masterpieces. The program opened with the “Overture to Struensee” by Giacomo Meyerbeer and also included Richard Strauss’s “Waltzes from Der Rosenkavalier.”

Chase performed Felix Mendelssohn’s “Violin Concerto in E Minor” with the orchestra. Audience members had an opportunity to meet Chase and learn about the music at a pre-concert conversation, which began at 6 p.m. in Berggren Recital Hall.

**Feb. 27 Concert**

Chase joined Vodnoy and members of the AUCS string section for a chamber music concert at 7:30 p.m. Feb. 27 in NSU’s Krikac Auditorium. Chase opened this program with Bela Bartok’s “Sonata for Solo Violin.” In the second half of the concert, Vodnoy joined Chase for a performance of “Sonata for Two Violins in F Major” by Franz Joseph Haydn. The program concluded with the “Concerto for Four Violins in B Minor” by Antonio Vivaldi, with soloists Chase, Vodnoy, Kira Makeever and Lindsey Fluharty. The four soloists were accompanied by a chamber orchestra of strings and piano from the AUCS. The concerts were sponsored by Dacotah Bank. The AUCS also receives a grant from the South Dakota Arts Council.
$1.4 million NSU art department renovation under way

Northern State University’s art instructors and students soon will pursue their creative endeavors in spaces custom-designed as part of an estimated $1.4 million facilities improvement project.

The project – in which parts of Dacotah Hall will be reconfigured into classrooms for graphic design and photography and other spaces renovated and upgraded – is key to maintaining accreditation from the National Association of Schools of Art and Design (NASAD), said Peter Kilian, art professor and chair of NSU’s art and theater departments.

NSU was awarded full NASAD membership in October 2013, he said, and is the only NASAD-approved college or university in South Dakota with bachelor’s degree programs in art and design.

The South Dakota Board of Regents approved a total of $552,057 for the project, said Veronica Paulson, NSU vice president of finance and administration. Paulson said an additional $40,000 to $50,000 worth of work was added because of unforeseen needs revealed during construction.

Also part of the total is a $200,000 anonymous gift received in January 2013 and earmarked for photography and digital design equipment upgrades.

NSU later will spend an additional $650,000 to remodel first-floor art classrooms in Spafford Hall, Paulson said. Those classrooms house printmaking, sculpture and ceramics.

Construction began in July 2013 and has an estimated completion date of December 2015, according to documents Kilian prepared for NASAD. CO-OP Architecture of Aberdeen was hired for the project.

Straddling the Years and Two Buildings

When NASAD officials recently scrutinized every aspect of NSU’s art offerings, every area but facilities met accreditation standards, Kilian said. Spafford Hall was built in the early 1900s; Dacotah Hall, in the late 1950s.

Never having been designed for art, Spafford and Dacotah present health and safety issues related to air quality and exchange, climate control, heating and cooling, and safe storage, Kilian said.

Kilian, who has worked at NSU for 19 years, said the art department hasn’t had a major upgrade in decades. “We’re well-prepared to have a very robust facility.”

First: Digital Graphic Design, Photography

The current graphic design room, Spafford 109, is in a former locker room in which computers generate heat that’s stifling in early fall and late spring, Kilian said. Other challenges include poor light control and wide pillars that block students’ view of the front of the room. Kilian said the new graphics room will have none of those inconveniences. It will offer storage for servers and equipment and the pleasant, comfortable environment students expect, he said, adding that advanced students will enjoy a separate personal workspace.

Photography will be centralized in Dacotah Hall with areas dedicated to photo and video shoots and processing; ventilation and air exchange and water system upgrades to mitigate the entry of photo chemicals into the water supply; and addition of a secure chemical and supply room.

A 450-square-foot light studio for photo and video shoots will offer track lighting, a mechanized backdrop wall and green screen, Kilian said.

“This is huge – for a college this size to provide a workspace like this is pretty cool.”

A student critique space will offer space for display and discussion where students can view, enjoy, assess and discuss each other’s work, making the formerly fragmented space “feel more like an art department,” Kilian said.

Initial improvements should be complete in April, said CO-OP project manager Bob Strom.

Later: Printmaking, Sculpture, Ceramics

Kilian said the next step will address improvements to the ceramics and sculpture studio classrooms, located in a former locker room and the old NSU swimming pool. Both areas lack storage and present a variety of challenges, from air quality control to safe storage of hazardous materials, he said.

A centralized printmaking area will offer needed storage space and allow safer storage and handling for the acids, solvents and other hazardous materials printmaking requires, he said.

Architectural plans and a construction schedule for these improvements are expected to be ready in July.

‘Modern and Inviting’

“Our goal was to make [Dacotah Hall] a little more modern and inviting, to attract students to the programs,” said Strom.

Strom highlighted other renovation details, including a revolving darkroom door; and, embedded in a wall of the art education room, a length of Chemetal, a magnetized whiteboard that can double as a projection surface.

“With the computer labs, we’re running all power through the floor to create a clean, cordless environment; a sleek, modern look.”

The display lobby and critique space will be a distinguishing focal point, Strom said. “The professors wanted an area that was relaxing, where they could have students show their work and hang out in between classes.”

Strom said workers spent considerable time upgrading mechanical and electrical fittings to comply with modern building codes, and routing new ductwork for fresh air flow.
Broadway actor performs with NSU Symphonic Band

Famed Broadway star Ivan Rutherford sang a selection of the most popular songs from “Les Miserables” with the Northern State University Symphonic Band on Feb. 9.

Rutherford, who has played Jean Valjean more than 2,000 times, performed “Bring Him Home,” “Stars” and “Empty Chairs.” He also talked to the audience about his incredible experiences being a top Broadway performer.

The concert took place at the NSU Johnson Fine Arts Center (JFAC). Rutherford has played Jean Valjean on Broadway, in national tours and, most recently, in regional theaters across the U.S. His recognition for this role has included being nominated for Best Actor at the annual National Broadway Theater Awards in New York.

Rutherford has also received praise for his performance from publications across the country. Los Angeles Times reviewer Philip Brandes wrote, “The immensely sympathetic Ivan Rutherford handles the role of Valjean with dignified assurance, making even the taxing vocal range from baritone to falsetto seem nearly effortless.”

At NSU, Rutherford also held a master class for the cast members of NSU Theater’s April production of “Les Miserables.”

School of Business dean discusses lean principles at conference

Dr. Willard Broucek, dean of the Northern State University School of Business, was a featured speaker at the Siouxland Lean Consortium’s inaugural conference on Wednesday, Jan. 15.

Broucek discussed the application of lean principles to the design and delivery of a business course. The conference took place at Western Iowa Technical Community College in Sioux City, Iowa.

The lean business model stresses continuous improvement; respect for people; the elimination of waste activities that add cost but do not add value; and a focus on value-creation for the customer.

Broucek, who has worked at NSU since 2000, is an educator with a strong international perspective. He received his bachelor’s degree from the University of Illinois, his MBA from York University in Canada and his Ph.D. from the University of Bradford in the United Kingdom.

Broucek has taught and been an academic administrator in Canada, the United Kingdom, the United Arab Emirates and the United States. He has presented papers at academic conferences in the U.S., Canada, U.K., Italy, Germany, Spain, Belgium, Turkey, Thailand, Suriname and India. He has visited partner universities in Canada, China, Korea and Vietnam, and has traveled extensively in Europe and Asia.

Broucek has taught a variety of courses in management and marketing: strategy and policy; leadership; marketing strategy; business ethics; and entrepreneurship. The lean business method is one of his many research interests.

NSU’s Dr. Alan LaFave named Outstanding Music Educator

Dr. Alan LaFave, dean of fine arts and professor of music/clarinet at Northern State University, was named 2012-13 Outstanding Music Educator during the annual All-State Chorus and Orchestra event in Sioux Falls.

LaFave previously served as director of bands at NSU from 1991 to 2006. He graduated from Northern State University and also holds a Master of Music Degree and a Doctor of Musical Arts in clarinet performance from Arizona State University Tempe.

LaFave maintains an active schedule as a guest conductor, adjudicator and soloist throughout the United States and Canada.

He also served as the past president of the South Dakota Music Educators Association. He has taught at the International Music Camp in Peace Garden, N.D., and Yellowstone Music Camp in Powell, Wyo. He also is director of Rushmore National Music Camp in Keystone.

NSU professor published in scientific journal, named co-editor

Northern State University professor Dr. Alyssa Anderson has been named co-editor of the CHIRONOMUS Newsletter on Chironomidae Research.

An editorial by Anderson, assistant professor of biology at NSU, was published this fall in the CHIRONOMUS, a peer-reviewed scientific journal.

In her editorial, “The Importance of Illustration,” Anderson explains why drawings are critical components of research and should continue to be used along with digital images.

The 2013 edition of the newsletter also featured an article announcing Anderson as one of its new co-editors. Anderson’s role as co-editor involves overseeing the manuscript review process, which includes selecting and requesting reviews from appropriate scientists and making decisions regarding article suitability/quality for publication.

Anderson, a native of Lake Crystal, Minn., joined Northern’s faculty in December 2012. She received her bachelor’s degree in biology from St. Olaf College in Northfield, Minn.; and her Ph.D. in entomology, with a graduate minor in conservation biology, from the University of Minnesota. Her primary interest is in the environmental side of biology, including aquatic ecology, entomology, ornithology and conservation biology.
NSU’s Aldridge named collegiate women’s coach of the year

**Brent Aldridge**, Northern State University head volleyball coach, was named South Dakota Sportswriters Association collegiate women’s coach of the year for 2013.

Aldridge, who also was named the Northern Sun Intercollegiate Conference coach of the year in November, led the Wolves to a 22-8 record and an appearance in the National Collegiate Athletic Association Central Regional Tournament for the second time in program history (2006). Aldridge also led Northern to its first appearance in the American Volleyball Coaches Association top 25 poll earlier this year. The Wolves reached as high as 20th in the rankings and finished the season ranked 23rd in the country.

Also in 2013, NSU sophomore Kelsey Chambers was the team’s first AVCA All-American.

Northern football has highest-attended NSIC game in 2013

**Northern State University** football’s Sept. 7 season opener against Wayne State was the highest-attended NSIC game played in 2013, as 6,132 fans attended the Wolves’ 29-27 triple overtime victory.

The crowd was Northern’s highest since 6,642 attended 2012’s Gypsy Day victory over Minot State University. NSU averaged more than 3,200 fans per game this season.

“We have the best fans in the country and their loyal support helps ensure our athletic events have an electric atmosphere, which is very important for our student-athlete experience,” said NSU Athletic Director Josh Moon.

The second-highest attended game in the NSIC was the Sept. 21 contest between then No. 2-ranked Minnesota State University and seventh-ranked University of Minnesota Duluth, as a crowd of 5,723 watched MSU’s 21-17 win.

Acclaimed speaker visits NSU

**Ben Newman** spoke at 7:30 p.m. Feb. 18 in the Johnson Fine Arts Center. His presentation, titled “Own Your Success,” was free and open to the public.

The speech, NSU’s February Business Connections event, was sponsored by Northwestern Mutual of Aberdeen, the Aberdeen American News and the NSU Honors Program. At the event, Newman shared action steps for owning one’s success, both personally and professionally. A book signing followed his speech.

Newman, of St. Louis, is chief executive officer of the Ben Newman Companies. His clients range from top businesses around the world to professional athletes in the NFL, MLB, PGA and NCAA. He has inspired thousands worldwide to do great things by focusing on process instead of results and turning adversity into opportunity.

His mantra is: “Your success is not just about changing your habits, it’s about changing the way you think!”

Newman’s passion and resilience were shaped by the lessons he learned after losing his mother at a young age. Janet Fishman Newman lost her battle with a rare debilitating disease shortly before Newman’s eighth birthday – but, as he says on his website, she never lost her fight. Her strength, love, work ethic and legacy live on through him.

“Getting knocked down is part of life,” Newman said, “but what matters is that we bounce back to living and loving, continuing to fight the good fight.”

“Fight the Good Fight” is the name of the book in which he shares his mother’s story. His newest book, “Own Your Success,” was ranked by CEO READ as the No. 13 business book of 2012.

Newman also offers intensive boot camps for businesses. Derrick Dinger, managing director of Northwestern Mutual, attended one of Newman’s boot camps and has read his books. He was introduced to Newman through a colleague.

“His enthusiasm and passion for life is apparent – but more importantly, it’s real,” Dinger said. “His teachings about mental toughness and ‘reframing’ are not only motivating, they have substance. He gives you steps for taking action and implementing his message. He’s not just another rah-rah, feel-good speaker.”

NSU receives Division II Award of Excellence

**Northern State University** won the Northern Sun Intercollegiate Conference (NSIC) 2013 Division II Award of Excellence for its Day of Champions held last April.

**Day of Champions**

In April, more than 170 NSU student-athletes and coaches took part in Northern’s 11th annual Day of Champions. The event pairs student-athlete groups with organizations around the Aberdeen community and surrounding area for a day of service projects.

Wolves student-athletes were dispatched to projects to benefit nine organizations: The Salvation Army, Frederick Forward, Aberdeen Family YMCA, the Ipswich Tiger Post After School Program, Safe Harbor; Lutheran Social Services, Aberdeen Community Theatre, the Northeastern Mental Health Center and the Aberdeen Boy’s and Girl’s Club.

“This is a great recognition for NSU by the NCAA,” said NSU Athletic Director Josh Moon. “The Day of Champions has been a longstanding tradition at NSU where our student-athletes serve our local community with pride and dedication.”

“The Aberdeen community shows tremendous support to our athletic programs throughout the year,” said Terri Holmes, NSU assistant director of athletics. “The Day of Champions event is a small way for us to return that support.”

To be considered for the award, Division II institutions and conferences submit a community engagement event or game environment from the past year to the National Collegiate Athletic Association. Each conference winner receives $500. The top three finalists and overall winner will be announced during the business session of the 2014 NCAA Convention Jan. 18.
Larissa Kempf had the winning poster presentation and Katelynn Kippes had the winning oral presentation at the 2014 Undergraduate Research Forum at Northern State University. Kempf’s project was “Isolation and Identification of Bacterial Micro-flora in Rocky Mountain Wood Tick (Demacentor variabilis).” Her mentor is Dr. Jon Mitchell, assistant professor of biology.

Kempf then represented NSU at the annual Pierre Poster Session in March, where students from colleges throughout the state present to legislators in the Capitol building.

Kippes’ research project was “Down Syndrome: The Effects of Knowing on Prenatal Testing and Abortion Decisions.” Her mentor is Dr. Erin Fouberg, professor of geography.

Seventeen students participated in NSU’s third annual Undergraduate Research Forum, which was held in the Williams Library Round Room. The event gives students the opportunity to showcase research projects in which they have engaged this year.

Kempf, a sophomore, was born and raised in rural Aberdeen. Active in 4-H, she developed her interest in biology through horticulture and raising small livestock.

She is majoring in biology with a minor in chemistry. She also is pursuing an associate’s degree in biotechnology and a minor in art.

Kempf anticipates graduating from NSU in May 2016, after which she hopes to study chiropractic medicine.

Kippes, a special education major who will graduate in May, is originally from Somerset, Wis. Kippes said her research topic was inspired by her younger sister, who has Down syndrome.

Kippes plans to earn a master’s degree in speech pathology, beginning her studies this fall at a Minnesota university.

Northern State University history and honors student Mike Newman, who traced his grandfather’s journey through World War II Europe, presented his Honors thesis at 7 p.m. Feb. 12 in the Johnson Fine Arts Center Room 134.

The presentation was free and open to the public, and refreshments were provided following the talk.

Fascinated by his grandfather Heinz’s fragmented story, Newman was inspired to delve into the past and reconstruct his family’s experiences. Despite the German invasion of Belgium, his family’s imprisonment in a concentration camp, and the loss of several family members, Heinz eventually escaped and “traveled throughout five countries, often illegally,” Newman said.

The man immigrated to the United States and left his past largely unspoken — save for a number of handwritten pages narrating his plight. “[The memoirs] had a very emotional impact on me,” Newman said. “In all of my time with him, I never realized he went through something so traumatic.”

Newman discussed the process of developing his research idea, how he received funding from the NSU Undergraduate Research Program to travel, and his personal experience in Europe following his grandfather’s path.

Northern State University student Wyatt Warkenthien was accepted as an intern with S.D. Sen. Tim Johnson’s Senate Banking Committee in Washington, D.C.

Warkenthien is the son of Kerry and Paula Warkenthien of Willow Lake, and is a graduate of Willow Lake High School. He is a sophomore at NSU, where he is pursuing a degree in professional accountancy and banking and financial services, with a minor in economics.

On campus, Warkenthien is involved with several student activities and organizations. Included in these is NSU’s honors program, where he serves as Honors Club treasurer. This year he was also able to take part in Northern’s newly formed honors ambassador program. He also is School of Business senator for Northern’s Student Association.

Warkenthien, one of many candidates applying for the internship, was selected by the Senate Banking Committee after a careful review of his resume.

His favorite part about the internship has been learning the legislative process for drafting bills and bringing them before Congress. “There is always something to do, from touring the Capitol to going to the Smithsonian,” he said of life in Washington, D.C.

Warkenthien’s internship began in September and ended Dec. 18.
NSU student sits on cybersecurity panel

Northern State University student Ethan Brown, who attended a national conference on cybersecurity challenges facing the U.S., also discussed the issue at a state event.

Brown, a senior in the NSU Honors Program, participated in a personal cybersecurity panel at the South Dakota World Affairs Council (SDWAC) Cybersecurity Symposium at 10 a.m. Jan. 24.

Brown, a native of Flower Mound, Texas, was the only student awarded a scholarship from the SDWAC to attend the World Affairs Councils of America conference in November in Washington, D.C. Only 25 students from across the country were selected to attend the conference.

Brown is majoring in biology and environmental science and minoring in chemistry and geography at NSU. In addition to the Honors Program, he is also involved in the NSU Student Association; Phi Mu Alpha Sinfonia, the men’s music fraternity; and the Common Read committee.

Brown said he was the only student with a major unrelated to international affairs chosen for the WACA conference. But, he thinks that ultimately, that difference helped him be selected. He started at NSU as an international business major, but he switched when he realized his interests were more in international affairs and less in business. He maintains a strong interest in global issues and hopes to apply his degrees on a global level. His interests include ecosystems studies, and he wrote about population health in his application letter to the WACA conference.

The WACA conference was dedicated to the top six issues facing the national security of the United States, including cybersecurity. That issue was also examined at the South Dakota symposium, which took place Jan. 23-24 on the South Dakota State University campus in Brookings. Brown sat on the personal cybersecurity panel with professors and students from other universities in South Dakota. The event was open to all South Dakota students as well as the public.

Cybersecurity expert Michael McNerney delivered the keynote address, “Cyberwar: How the Internet Changes World Conflict.” McNerney assisted in drafting the Cybersecurity Act of 2012 and establishing the U.S. Defense Industrial Base Enhanced Cybersecurity Services Program. A former Pentagon official, McNerney has spoken on national security issues, including the leaks by Edward Snowden.

For more information about the SDWAC or the symposium, visit www.sdworldaffairscouncil.org or www.facebook.com/SDWorldAffairsCouncil.
A faculty team at the School of Mines has been awarded $999,998 in funding from the U.S. Department of Defense – Army Research Lab through a subaward from the University of Alabama.

Focusing on novel extraction technologies for rare earth ores, the research will use a multidisciplinary approach to develop new leaching and concentration techniques and strategies for recovery of rare earth metals. The School of Mines has a long tradition of research related to the metallurgy associated with mineral concentration and metal recovery.

Rare earth metals, derived from their ores, have been deemed critical to the nation's economy and defense. End uses for rare earth elements include applications in petroleum refining, cell phones, laptops, wind turbines, jet fighter engines, missile guidance systems, antimissile defense and hybrid vehicles.

For years, China has been the largest supplier of rare earth metals due to a generous supply of resources and economical extraction techniques. However, in recent years, China announced a halt in production of some of its major rare earth mines. This reduction in exports placed increased pressure on the global market to meet the explosive demand.

With fears of a shortage, mining, extracting and refining these rare earth metals became a top priority, even lending the resource a new moniker: critical strategic metals. Adding to the challenge is the difficulty of the extraction process. Many easy ores – ores where metal is readily visible – have already been processed, and as the grade of ore deteriorates, extraction technologies must become inversely advanced.

As of now, there is only one active source in the United States and four universities researching extraction techniques – the School of Mines among them.

"Mines is one of the few universities in the nation that still teaches and does research in extractive metallurgy – getting metals from rocks. The supplies of these rare metals are currently dominated by China, and, as a nation, we need to develop secure sources of supply in North America. Our researchers have made progress in this area already, and I'm glad we will continue to do so through the effort funded by the Defense Department," said Mines President Heather Wilson.

Faculty members involved at the School of Mines are Jon Kellar, Ph.D., Michael West, Ph.D., William Cross, Ph.D., Sadegh Safarzadeh, Ph.D., Kenneth Han, Ph.D., Department of Materials & Metallurgical Engineering, and David Boyles, Ph.D., Department of Chemistry & Applied Biological Sciences.

Hardrocker athletes outperform on and off the field

Balancing academic demands with team practices and competition schedules requires a deep commitment and desire, and Hardrocker student athletes continue to exceed expectations.

With an overall 2.943 grade point average in the fall semester, Hardrocker athletes outperformed the Mines student body as a whole. Additionally, each athletic team earned a higher grade point average than the overall student body, which earned a 2.734 GPA.

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<th>ATHLETIC GPA</th>
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Mines fair hosts young scientific minds

Erupting volcanoes? That’s practically elementary compared to today’s science fair entries. Mini recreations of thermal wonders and more were demonstrated at the 59th annual High Plains Science Fair hosted by the School of Mines on March 21.

This year’s projects presented by more than 250 middle and high school students from throughout western South Dakota and the Newcastle, Wyo., area tackled topics such as how to make aircraft invisible to radar and the microevolution of Bacillus subtilis in response to isopropanol stress.

Attracting the best and brightest young scientific minds, entries spanned all engineering disciplines, as well as the biological, physical and social sciences, according to Shawna Delaney, Youth Programs director.

Last year’s fair attracted the likes of Conrad Farnsworth of Newcastle, Wyo., who went on to receive international attention for the nuclear fusion reactor he built in his parents’ garage. Farnsworth, who won last year’s fair, is believed to be just one of a handful of high school students in the world to have achieved nuclear fusion. Now an electrical engineering major at Western South Dakota and the Newcastle, Wyo., area tackled topics such as how to make aircraft invisible to radar and the microevolution of Bacillus subtilis in response to isopropanol stress. Farnsworth spoke about his experience with the Mines science fair and the Intel International Science and Engineering Fair (ISEF) at the afternoon award ceremony.

“The encouragement and support provided to all students by their parents and science teachers is crucial in developing the desire and skills to prepare a project for the fair. Behind the scenes, many of the SDSM&T faculty and staff work hard to ensure that each year the science fair is a success and that all student participants have a unique experience that will inspire them to choose a profession in science or engineering for their future,” said Donna Kliche, Ph.D., Mines’ Institute of Atmospheric Sciences faculty member and co-chair of the science fair committee.

The stakes were high, with the overall winner in the senior division (high school) and his or her teacher receiving an all-expense paid trip to present their project at the international fair (ISEF) in Los Angeles in May. Additionally, an eighth through tenth grade student and their teacher were selected to travel to the ISEF and participate as a student observer.

Travel to the international fair for the senior winning team is sponsored by the School of Mines, while travel for the student observer team is sponsored by South Dakota EPSCoR. Both the senior winner and student observer will present their projects at the state EPSCoR conference in May.

Clean Snowmobile team takes second in SAE design competition

The South Dakota School of Mines & Technology Clean Snowmobile team took second in the 2014 Society of Automotive Engineers (SAE) Clean Snowmobile Challenge, triumphing in one of Michigan’s snowiest winters in years – ideal sub-freezing conditions for the SAE design competition.

In the Clean Snowmobile Challenge, engineering students compete in a variety of categories. The internal combustion category aims to reduce emissions and noise and increase fuel efficiency while preserving the riding excitement demanded by snowmobile enthusiasts. The zero emissions category, sponsored by the National Science Foundation, relies on electric snowmobiles to conduct atmospheric research in pristine arctic locations.

“Advances like these are critical to the future of snowmobiling,” said Art Jeffers, acting forest supervisor of the Huron-Manistee National Forest, who represented the U.S. Forest Service at the challenge. “The snowmobiling industry and the clubs have made great strides, and with their sponsorship, the Challenge has been a great way to move the technology forward.”

Next year, the challenge will dedicate a separate category to diesel-powered sleds, as demand mounts for diesel technology education from companies such as John Deere and Caterpillar. Sleds in the challenge will continue to use a biofuel mix based on gasoline and isobutanol, requiring future entries adapt to a mystery blend fuel recipe that contains an unknown percentage of isobutanol.

The Clean Snowmobile team falls under the purview of the Center of Excellence for Advanced Manufacturing and Production (CAMP). The center is designed to teach students engineering, science and design skills, as well as the ability to work in teams. Team members design, build, market and raise the money for their projects.
E-Week 2014

[Images of various activities and people during E-Week 2014]
The South Dakota School of Mines & Technology hosted the 2014 North Central Region 6 Student Conference for the Institute of Industrial Engineers (IIE), attracting nearly 200 people to the Black Hills. Most of the 189 attendees at the March 6-8 conference were engineering students from universities in eight states. In a unique kick-off event, SDSM&T Industrial Engineering professor Carter Kerk, Ph.D., demonstrated scientific principles underlying safety engineering by lying between two beds of nails as a concrete block was crushed on his chest. The agenda also included a community service-oriented competition in which student teams designed workstations and assembled pedal tractors in a timed event. Teams from 10 universities competed in the Kaizen/ manufacturing efficiency competition, building tractors provided by Scale Models & Dyersville Die Cast. All 10 tractors were donated to Rapid City Youth and Family Services at the final banquet held at Mount Rushmore. The School of Mines Department of Industrial Engineering, conference host, also organized tours of Rapid City Regional Hospital, RPM and Associates, GCC Dakotah cement plant and Nash Finch Distributing Center. Other conference events included a Student Paper Competition sponsored by John Deere and breakout sessions with industry speakers Anna Boyd of 3-M, Ben Mollman of Polaris, Dennis Oates of FedEx SmartPost, Paul Elder of Strider Bikes and Dan Thury of Andersen Corporation. “Breakout sessions provided a chance for industry professionals to connect with each student and provide insight to making that transition from student to professional,” said Terry Nguyen, Mines senior industrial engineering major who served as conference co-chair. Mines’ Roger Johnson, Ph.D., of the Department of Mathematics and Computer Science, was among the speakers, discussing his statistical prediction models of NFL games. Johnson developed a mathematical model he has used for many years, and this year predicted the Super Bowl winner.

Among the 189 registered attendees were representatives from the University of Chicago, the University of Illinois at Urbana-Champaign, Northern Illinois University, the University of Iowa, Iowa State University, the University of Nebraska, North Dakota State University, Montana State University, the Milwaukee School of Engineering and both the Madison and Platteville campuses of the University of Wisconsin.

Students host nearly 200 for regional industrial engineering conference

Andrew Pierson represents university at state research poster session

Andrew Pierson of Brooklyn Park, Minn., represented the South Dakota School of Mines & Technology at the 2014 Student Research Poster Session. The senior computer science major was among 13 undergraduates from colleges and universities statewide who showcased their research endeavors before state lawmakers in the State Capitol Rotunda on March 6. Pierson’s studies at SDSM&T combined with his hands-on industry experience have led him and the rest of his senior design team, Jonathan Richardson of Douglas, Wyo., and Derek Stotz of Sioux Falls, to the research area of computer vision. Raven Industries, an industry leader in high-tech agriculture equipment, is sponsoring the team whose research may eventually be implemented in semi-autonomous agriculture equipment.

The group developed a method to accurately test and compare technology which could make the current labor-intensive, multi-step hay-making process more efficient. Using a different type of distance sensor along with clever edge-detection and guidance algorithms, an inexpensive alternative can be achieved allowing tractor drivers to minimize the amount of overlap on each pass and maximize the amount of crop they can collect over a period of time. Pierson will graduate in May with a B.S. degree in computer science. Faculty advisors are Jeff McGough, Ph.D., of the Department of Mathematics & Computer Science, and Randy Hoover, Ph.D., of the Department of Electrical & Computer Engineering.
Clarkson, Pioneer Bank, Davis gift to benefit Mines freshmen

Inaugural 5K Diamond Dash set for April 12

Alpha Delta Pi sorority at the South Dakota School of Mines & Technology invites runners to compete in the inaugural 5K Diamond Dash on April 12.

The dash will consist of a 5K run/walk and a ¼ mile kids run, starting in the School of Mines Quad. Registration forms may be found at etaeta.jimdo.com or through Cheryl Dillon in the university’s Student Activities and Leadership Center office, lower Surbeck Center, on the School of Mines campus.

Early registration continues through April 4. Early registration costs are:
- 5K run/walk – $20 for community participants, $15 for Black Hills Runners Club members and Mines students
- ¼ mile kids run – $15 for all participants

Race day registration costs will be:
- 5K run/walk – $25 for community participants, $20 for Black Hills Runners Club members and Mines students
- ¼ mile kids run – $20 for all participants

Race check-ins will begin at 9:15 a.m. in the Quad, with the 5K starting at 9:30 a.m. and the ¼ mile children’s run starting at 10:30 a.m. The maximum age for children runners in the ¼ mile race, which will be held entirely on campus, is 12.

The 5K run extends from campus and follows bike paths through the city.

All proceeds from the Diamond Dash will benefit Ronald McDonald House, the national philanthropic organization supported by Alpha Delta Pi. The Ronald McDonald House offers housing for families to be near their children during their medical care and sometimes helps with basic dental and medical needs.

The sorority hopes to turn the Diamond Dash into an annual event.

From left: Earl Davis, Davis FLP; Jeb Clarkson, senior vice president and senior trust officer, F.L. Clarkson Family Foundation; Ferman Clarkson and Mary Buchholz, Clarkson Foundation; Jim Morcom, senior vice president of Pioneer Bank & Trust and manager, Rapid City West branch; Kevin Whitlock, president and chief executive officer of Pioneer Bank & Trust; Brad Johnson, vice president of development, South Dakota School of Mines & Technology Foundation; and Rick Messer, senior vice president of Pioneer Bank & Trust & Trust and manager, Rapid City South branch.

The F.L. Clarkson Family Foundation and Pioneer Bank & Trust have joined with Davis FLP to commit $50,000 to freshmen scholarships at the School of Mines.

The commitment will help support the university’s growing enrollment. With 553 first-time students, this year’s freshman class increased by 20 percent compared to the previous year. Mines’ overall enrollment is 2,640.

One of the university’s strategic priorities is to increase enrollment to 3,500 by 2020, and offering scholarships to incoming freshmen is key to achieving that goal. One of the deciding factors on whether students of potential will be able to enroll at Mines is scholarships.

“In an effort to follow two of the Clarkson Family Foundation’s tenets, one being to promote education and the other being to champion the rights and liberties guaranteed by the Constitution, we are pleased to be able to support students seeking higher education in South Dakota’s universities and trade schools. Youth are the future of this state and of this nation and the goal is to help them to become hard working, taxpaying, contributing members of society,” said Jeb H. Clarkson of the F.L. Clarkson Family Foundation.

Mines President Heather Wilson thanked the Clarkson Family Foundation, Pioneer Bank and Davis FLP for their gift and said a scholarship is a great investment in student success.

“A freshman scholarship can mean the difference between a family deciding they can afford college or deciding to choose another path,” Wilson said. “We continue to get applications from highly qualified students who will be able to do the hard work to succeed at Mines, and if we can narrow the gap between what an education at Mines costs and what a family can afford, then we all benefit.”

Once students enroll, chances are they will stay throughout their college careers. In fall 2013, the first- to second-year retention rate from fall 2012 was 79 percent.

With a 98 percent placement rate for its graduates, the School of Mines continues to prepare leaders for the high demand in science and engineering fields. The average starting salary for a Mines graduate is $62,400.

The Higher Learning Commission invites third-party comment on the South Dakota School of Mines & Technology.

The South Dakota School of Mines & Technology seeks comments from the public about the university in preparation for its periodic evaluation by its regional accrediting agency. The university will host a visit April 14-16, 2014, by a team representing the Higher Learning Commission of the North Central Association. The South Dakota School of Mines & Technology has been accredited by the Commission since 1925. The team will review the institution’s ongoing ability to meet the Commission’s Criteria for Accreditation.

The public may send third-party comments to the following address:
Third-Party Comment on the South Dakota School of Mines & Technology
The Higher Learning Commission
230 South LaSalle Street, Suite 7-500
Chicago, IL 60604-1411

The public may also submit comments on the Commission’s website at www.ncahlc.org

Comments must address substantive matters related to the quality of the institution or its academic programs. All comments must be in writing.
All comments must be received by March 28, 2014.
Rajesh Sani, Ph.D., South Dakota School of Mines & Technology associate professor in the Departments of Chemical & Biological Engineering and Applied Biological Sciences, has been selected as a fellow to deliver a short course in India. The American Society of Microbiology Fellowship and the Indo-U.S. Science and Technology Forum awarded Sani the fellowship for “Interactive Short Course on Anaerobic Microbial Processes for Energy and Environment.” The four-week course will be delivered in December 2014 to graduate students at Guru Nanak Dev University in Punjab, India hosted by Professor B. Chadha. Graduate students from Jaypee University of Information Technology in Himachal Pradesh, India, will also participate in the course. The main goal of the course is to introduce master's and doctoral graduate students to current topics in anaerobic microbial processes, emphasizing critical evaluation of published peer-reviewed scientific literature as well as hands-on experiences in anaerobic processes, which occurs in the absence of free oxygen. Today, most of the sustainable and environmentally friendly processes – including conversion of lignocellulosic biomass to liquid and gaseous biofuels; food processing; and site remediation – rely on anaerobic microbiological systems. For example, to develop a consolidated bioprocessing for economical cellulosic biofuel production, unique saccharolytic fermentative microbes are needed. To isolate and work on such unique microbes, hands-on experiences in anaerobic processes are needed. Additionally, the visit to India will develop strong Indo-U.S. collaborations (research, student exchange and Indo-U.S. networking projects).

Mines' winning entries were:

- Adventure Weekend logo by Madison Zimmerman, University Relations – Gold, Elements of Advertising, Logo Category. This logo was designed last spring for use by Residence Life in digital promotional materials for the annual fall Adventure Weekend, which offers a weekend of bonding activities for incoming freshmen.
- Alumnus Merle Crew portrait by Fran LeFort, University Relations – Silver, Elements of Advertising, Photography Category. This portrait of 1942 Mines graduate Merle Crew was featured in the winter 2013 edition of The Hardrock magazine. Then 92, Mr. Crew holds a tattered National Geographic Society flag that flew during a 1940 Badlands expedition in which he participated.
- STEMinist campaign by Jon Michaels, Dani Doran, Madison Zimmerman-Dusek, all of University Relations, and Lisa Carlson of Women in Science and Engineering (WiSE) – Judges’ Choice. This collaborative effort produced last fall’s STEMinist campaign collateral that included T-shirts, brochures, and a digital sign to help promote Mines’ efforts to educate, mentor and retain female engineering students.

The School of Mines won three awards at the recent Black Hills chapter of the American Advertising Awards gala.

The awards represent the true spirit of creative excellence by recognizing all forms of advertising across a multitude of media sources. All of Mines’ winning entries will advance to the regional level of competition, where they will be judged with other winning works from Iowa, Minnesota, North Dakota, Wisconsin and eastern South Dakota.

Mines’ associate professor selected for fellowship in India

Rajesh Sani, Ph.D., South Dakota School of Mines & Technology associate professor in the Departments of Chemical & Biological Engineering and Applied Biological Sciences, has been selected as a fellow to deliver a short course in India. The American Society of Microbiology Fellowship and the Indo-U.S. Science and Technology Forum awarded Sani the fellowship for “Interactive Short Course on Anaerobic Microbial Processes for Energy and Environment.” The four-week course will be delivered in December 2014 to graduate students at Guru Nanak Dev University in Punjab, India hosted by Professor B. Chadha. Graduate students from Jaypee University of Information Technology in Himachal Pradesh, India, will also participate in the course.

Cultural Expo features international food, entertainment

International students from the South Dakota School of Mines & Technology and a variety of community groups celebrated their cultural diversity with food, entertainment and displays during the annual expo March 27, and March 29. Approximately 20 countries were represented. The 2014 Cultural Expo attracted visitors from area schools as well as members of the general public who converged on campus for entertainment featuring a variety of traditional food, music, dancing and fashion shows from a wide range of cultures. Educational and cultural activities for youth included storytelling and traditional crafts. Mines currently enrolls 135 international students from more than 35 countries. International students have been sharing their cultures with the community through this annual event for more than 40 years. In addition to the Ivanhoe International Center and the university’s Student Association, other sponsors of the annual festival were International Students, Inc., Black Hills Power and Pepsi.
Engineering students lend skills abroad during spring break

Two groups of School of Mines students traveled abroad during spring break to lend their engineering expertise to projects that will improve the lives of others.

One group from the Mines chapter of Engineers and Scientists Abroad (ESA) traveled to Bogotá, Colombia, to begin design and installation of a rainwater harvesting system, as well as remediating a landslide-prone slope. They collaborated with like-minded peers from Pontificia Universidad Javeriana and Irma and Richard Frank, whose past donations and future commitments to fund international experiences have played a pivotal role in ESA’s good deeds. Richard Frank is a 1963 mechanical engineering graduate from the School of Mines.

Because of the high level of annual precipitation in the Bogotá area, roughly 30-40 inches per year, rainwater harvesting is of particular interest. ESA’s plan is to create a simple, repeatable design based on materials common to the area and collect precipitation data, which can be implemented on a large scale for many local residents.

The Colombia team was comprised of Tony Kulesa, a graduate student from Rapid City; Cody Schellinger, a senior from Sheridan, Wyo.; Logon Vogt, a senior from Chadron, Neb.; and Michael Dollarhide, a senior from Pipestone, Minn., all civil and environmental engineering (CEE) students; Erik Walega, a geological engineering graduate student from Lafayette, Colo.; Elizabeth Woody, a junior mathematics and computer science major from Rapid City; and Kati Johnson, a senior chemical engineering major from Buffalo.

A second School of Mines ESA team traveled to Peru March 13-18 to help improve conditions at the Wesfalia Orphanage in the hilly area of Cieneguilla, about 90 minutes from downtown Lima, Peru.

ESA members designed and constructed new infrastructure to provide needed improvements to supply the orphanage with a permanent clean water source, new plumbing and solar energy to replace gas, as well as allowing the addition of a fruit orchard. Mines students made contact with Wesfalia through family and mutual friends and plan to return for consecutive years to complete infrastructure improvements.

Wesfalia is a non-government funded orphanage dedicated to helping about 100 children by providing housing, education and psychological assistance to children with serious emotional development problems.

The Peru team was comprised of Carl Holloman, a sophomore from Rapid City; Kevin Barry, a senior from Rapid City; Kylie Berger, a senior from Sioux Falls, and Tony Kulesa, a graduate student from Rapid City, all CEE majors. Two students from a similar organization in Colombia will join them.

State library e-resources training session hosted on campus

The South Dakota School of Mines & Technology hosted a public training session on use of the state library’s e-resources the Devereaux Library on campus.

State documents such as the governor’s budget, fishing, transportation and environmental impact reports, as well as other state agency annual reports, are now available online through the South Dakota State Library. Patrons may search for a state government report via the online library catalog in the same way they would search for a book or DVD. Magazine and newspaper articles, practice tests, language skills exercises, repair manuals, genealogy programs and encyclopedias are examples of other resources available online for free. The library has paper copies available of documents not issued in electronic format.

For additional information, call the Devereaux Library at (605) 394-2418.

Math modeling contest poses traffic challenges

A trio of undergraduate students from the South Dakota School of Mines & Technology recently competed in the 30th annual Mathematical Contest in Modeling (MCM).

Teams were comprised of up to three students from the same school. Representing the School of Mines this year were Erica Daniels of Lennox, Christopher Cody of Saint Peter, Minn., and Daniel Nix of Sioux Falls. Kyle Riley, Ph.D., head of the Department of Mathematics & Computer Science, served as team advisor.

Teams are given a choice between two problems. After picking their problem, teams research the question, develop a mathematical model, use a computer to simulate the model and then write a technical report about it – all within one weekend.

The Mines team chose a problem involving a rule that requires motorists to drive in the right-most lane unless they are passing another vehicle, in which case they move one lane to the left to pass and then return to the right lane. The team’s challenge was to build a mathematical model to analyze the performance of this rule in light and heavy traffic. The contest also posed the idea of cars controlled by computers instead of humans and how that would affect models.

Results from the competition will be released at the end of April.

About Legacy News

Legacy News is produced by the Office of University Relations the first Wednesday of each month. The newsletter is a compilation of news releases, photos and Web articles.

To submit news or story ideas or to subscribe to the email distribution list, please contact Fran LeFort, communications manager, at 605.394.6082 or at fran.lefort@sdsmt.edu. For more School of Mines news, visit news.sdsmt.edu

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SCHOOL OF MINES & TECHNOLOGY
A Celebration of Faculty Excellence recognizes research, teaching, service

SDSU recognized 22 faculty members, researchers and scientists as well as a committee at its annual Celebration of Faculty Excellence banquet held Feb. 18. The event honors faculty members in each of the university’s colleges for outstanding research, teaching and service.

Prior to the evening banquet, several faculty scholars participated in the Sewrey Colloquium to raise awareness and demonstrate scholarship in research, creative and fine arts, teaching and learning, and service.

Michael Keller delivered the David Fee Memorial Lecture, “Wither Rigor? The Cultute of Distraction and the Crisis of Dispersed Consciousness.” Keller is a professor of English. Fee taught philosophy and religion at SDSU for more than 20 years. Annual presenters of the named lecture are selected based on their topics and contributions to Fee’s example of cross-disciplinary learning, inquiry and collegiality.

Faculty Awards for Global Engagement
- Michael Wimberly, professor of natural resource management, received an award for faculty engagement in global research.
- Feng Li, professor of biology and microbiology, received an award for faculty engagement in global research.
- Molly Enz, associate professor of modern languages and global studies, received the award for overall faculty engagement in international affairs.

Excellence in Teaching and Research
- Alan Young, professor and research leader of veterinary and biomedical science, received the Pat and Jo Cannon Intellectual Property Commercialization Award.
- Jeffrey Jacquet, assistant professor of sociology and rural studies, received the Dr. Sherwood and Elizabeth Berg Young Faculty Award.
- Kurt Cogswell, department head and professor of mathematics and statistics, received the Dr. Harold and Barbara Bailey Award for Excellence in Academic Department Leadership.
- Qiquan Qiao, associate professor of electrical engineering and computer science, received the F.O. Butler Award for Excellence in Research.

In this IMPACT State

**IMPACT Community** ........................................ 2
- Art Museum hosting ‘Oblique Legacies’

**IMPACT International** ....................................... 3
- Student on international happiness panel
- English Language and Culture Institute set to launch in fall 2014

**IMPACT Students** ............................................. 5
- Student launches ‘Bison: My Way!’ cookbook

**IMPACT Stewardship** ......................................... 7
- Foundation sets one-year fundraising record
- Student fundraises for children with ‘Miracle Mugs’

**IMPACT Research** ............................................. 10-11
- Grad student studies ice load on bridge piers
- Undergrads share research with legislators

**IMPACT People** .................................................. 13
- Richard Meyers appointed to national organizations
- Bernadette Olson tapped for MAATA Hall of Fame

Sherwood O. Berg, president emeritus, 1919-2014 ........................................... 16
Art Museum hosting ‘Oblique Legacies’

World-renowned artist Stephen Braun has something for everyone to ponder, whether it’s comical or serious in his latest exhibit, “Oblique Legacies.”

The exhibition opened Jan. 14 and will be available to the public until May 11 at the South Dakota Art Museum. A public reception with Braun will be held March 28 starting at 4:30 p.m. In addition, Braun is scheduled to speak to students in at least seven classes with the SDSU Department of Visual Arts.

People are astounded about Braun’s work and his unique use of ceramic art, according to Jodi Lundgren, coordinator and curator of exhibitions at the South Dakota Art Museum. The show is attracting the public’s attention such as school groups and is exciting for anyone in the area who knows ceramics.

“This (art) causes such a visceral reaction,” Lundgren said. “Before you even get into really looking at it closely or reading the titles and discovering the humor that comes into play, there is just such a draw when you see this stuff physically."

Braun became fascinated with ceramics while studying at the University of Montana. His work has been displayed in textbooks, periodicals and newspapers. Braun, who is always exploring the possibilities of clay’s dimensions and limits, has had exhibitions in museums throughout the world.

Countless hours and several pieces make up Braun’s sculptural installations. After forming his sculptures in clay, it’s the firing that consumes a large amount of time.

“The idea behind (“Oblique Legacies”) is to focus on legacies that are left on the landscape, in our bodies, in our minds—and how we create our world view and make decisions,” Braun said in his artist statement that accompanies the exhibition.

While much of Braun’s work brings on heavy contextual interpretations, Lundgren feels that Braun handles it graciously.

“It’s dealing with really heavy stuff: overconsumption and consumer culture, short-sighted ways of looking at the world and how your actions impact the world; however the way he handles it brings a lot of levity to it,” Lundgren said. “You grow up loving your car. You don’t really see how that value comes in conflict with some other things and so to be able to put that all out on the wall and say, ‘think about it, but laugh a little bit,’ there’s a lot of value in that."
The Office of International Affairs and Outreach is planning to launch the English Language and Culture Institute in fall 2014.

The institute will offer various programs for international students who want to develop proficiency in the English language before entering SDSU at both the undergraduate and graduate levels.

In the Intensive ESL Program, students will have the opportunity to learn academic English, with special attention to increasing their reading, writing, listening and speaking skills, as well as enhancing their ability to engage in critical thinking and academic dialogue in English.

The program offers three levels of intensive ESL learning. Upon completion of the third level, students will be prepared to begin their studies at SDSU.

The institute also will offer cultural instruction, so students can fully experience the richness of their experiences in South Dakota and the United States.

“We are excited to provide the SDSU community with ESL support that engages students at all levels of their English language development,” said Nathan Ziegler, ESL director.

“ELCI provides a nice pathway for students who are eager to come to SDSU but are not quite ready in their English language development.”

The institute also will offer the American Language and Cultural Immersion Program to provide language and cultural learning experiences for those studying in the United States on a short-term basis during the summer.

It will provide support to all international students, faculty and staff, including assistance with communication and cultural understanding in English-speaking environments.
Jonas Center grant to fund doctoral nursing students

The SDSU College of Nursing and the Jonas Center for Nursing and Veterans Healthcare have announced they will award scholarships for two doctoral nursing students starting in the 2014-15 school year. The scholarships are a result of a new grant of $20,000 from the Jonas Center, matched by $20,000 of the college’s own funds. As a recipient of the Jonas Center grant, SDSU is part of a national effort to stem the faculty shortage and prepare future nurses as America’s health-care system continues to evolve.

The recipients for the two-year scholarships are Julie Kittlesrud and Kelli Hinsch, both from Sioux Falls. Kittlesrud is a doctoral student whose research focus is on genetic factors and physiologic variables that may be associated with shiftwork-related health and safety issues. Hinch is a doctor of nursing practice student who was a U.S. Army nurse and currently serves in the Army Reserve. Her focus is quality primary care for veterans who have experienced sexual trauma.

“Having the opportunity to be a Jonas Scholar has been a life-changing experience,” said Nicole Gibson, who was awarded a Jonas Scholarship in 2012. “The support I received through the Jonas Center was invaluable in providing me with the vital resources, leadership and collegiality to develop and implement my practice innovation project, enhance my leadership skills and further the educational aspirations of future nurses.”

The Jonas Scholars join nearly 600 future nurse-educators and leaders at 110 schools supported by Jonas Center programs, the Jonas Nurse Leaders Scholars Program and Jonas Veterans Healthcare Program.

“The Jonas Nurse Leaders Scholar Program is aligned with the strategic plan of the College of Nursing,” said Dean Nancy Fahrenwald, adding that development efforts are underway to further support the required matching funds for this program as well as other initiatives to support and recruit excellent faculty.

The Jonas Center, the leading philanthropic funder for nursing, is addressing a critical need, evidenced by data showing that 2013 saw the lowest enrollment increase in professional RN programs in the past five years. This is due primarily to a shortage in qualified faculty. To date, the Jonas Center has contributed more than $8.2 million to the initiative.

“The call for more nurses—and thus the faculty to prepare them—is massive. Health care in America has never been more complex, yet tens of thousands of would-be nurses are turned away from the profession each year,” said Donald Jonas, co-founder of the Jonas Center. “We’ve stepped up the pace and expanded our programs to meet this need.”

Forensics wins second-straight title

SDSU won the 2014 South Dakota Intercollegiate Forensics Association State Championship Feb. 14-15 in Fargo, N.D. The title was SDSU’s second-straight. SDSU has won more than 20 titles since 1975.

Sophomore Nicholas French (Brookings) won the persuasive and informative speaking events on his way to a third-place finish in individual sweepstakes. He also was third in prose interpretation and fourth in extemporaneous speaking.

By winning the persuasive-speaking category, French qualifies to participate in the Interstate Oratorical Association’s Contest, the oldest public-speaking contest in America. That event will be April 25-26 on the campus of James Madison University in Harrisonburg, Va.

By placing second in persuasive speaking, first-year student Forrest Kramin (Olivia, Minn.) also qualified to represent the state of South Dakota at the Interstate Oratorical Association.

Michael Maxwell (Omaha, Neb.) won the extemporaneous-speaking category, Olivia Tyrrell (Taylor, N.D.) won drama and Andrew Jorgensen (Tea) won impromptu. Other finishes included:

- Danielle Baker (Fairfax)—second, informative speaking; second, program oral interpretation; second, interpretation of poetry; and third, drama interpretive;
- Samantha Blum (Watertown)—second, duet interpretation; third, interpretation of poetry; sixth, prose interpretation;
- Tyrrell—second, impromptu speaking; third, program oral interpretation.

The team is coached by Andrea Carlile, the director of forensics. SDSU will also participate in the National Individual Events Tournament April 4-7 at Arizona State University.
At an early age, Kristin Olson revealed a love for cooking. She remembers sitting on the counter by her grandma Anna Marie, mixing up cookies and punching down bread dough—just the beginning of her culinary calling.

That calling has provided “Bison: My Way!”—a cookbook filled with unique bison recipes.

It contains 25 recipes featuring bison as the main protein in entrees, salads, soups and stews. Recipes for side dishes and Olson’s famous berry sauces are also included. The cookbook provides easy-to-reproduce meals for cooks with skills ranging from beginner to expert.

The cookbook was a project partly funded by Olson’s Griffith Honors Scholarship. Don Lake and Jim Stone from the Intertribal Bison Council donated bison meat.

Olson had a couple of goals when putting her cookbook together: incorporate healthy vegetables and spices within the bison recipes, and make the recipes kid- and family-friendly.

“It’s so important to teach cooking in the family,” said Olson. “If parents teach the basic cooking skills when children are young, there’s more room for creativity in the kitchen in the future.”

Olson said bison intimidates many home cooks only because they are unfamiliar with it as a recipe ingredient. She prefers cooking with bison because it is leaner than beef, but still has all the flavor. She said the most critical tip for beginner bison cooks is preparing the meat with patience and care.

Scrumptious specialties

Her cookbook stands apart from a handful of other bison cookbooks on the market in that it lists the nutrition information for every dish—calories, fat, saturated fat, cholesterol, sodium, carbohydrates, fiber and protein. Each page features a brief personal connection to the dish or suggests tasty pairings.

All of the recipes in Olson’s cookbook went through a taste test, where students and faculty judged the appearance, flavor, texture, aroma and overall acceptability.

Olson’s “Bison Tenderloin” almost always wins taste tests because of its mild flavor and moist texture. “I cook it on higher heat for a shorter amount of time,” said Olson. “I use an internal thermometer and bake it to 138 degrees Fahrenheit. Oftentimes people overcook the tenderloin because of how lean it is.”

Olson buys bison at the local grocery store, but said finding it in most small-town grocery stores isn’t common. “I know Hy-Vee keeps ground bison and patties on hand in the freezer section, but I pre-order certain cuts, like the tenderloin,” Olson said. “It usually takes about a week to get in the special order.”

Bison costs more than beef, averaging around $7 to $8 a pound for 93 percent meat, 7 percent fat. Olson said, for her, it’s worth the extra money.

Before bison

Olson grew up in Rapid City, and after graduating high school she sharpened her cooking skills while serving in the U.S. Army as a food service specialist. After military service, Olson graduated from the Texas Culinary Academy in Austin, Texas, and went on to work as a personal chef.

Her desire to learn more about food nutrition led her to SDSU, where she is pursuing a Bachelor of Science degree in dietetics. She expects to graduate in May.

Olson said furthering her education has been worthwhile, and she plans to continue her education after earning her undergraduate degree.

She applied to graduate school at SDSU and will work with dietetics professor Kendra Kattelmann as part of a dietetics internship.

After grad school, Olson hopes to combine her culinary and dietetics knowledge and work as a registered dietitian.

She wants to help others find the confidence to cook healthy meals for themselves and their families.

Buy the cookbook

“Bison: My Way!” can be purchased for $5 by contacting Olson via email at bisonmyway@icloud.com, by calling 605-688-4040 or by getting in touch with Padmanaban Krishnan, professor in the department of health and nutritional sciences and project mentor for the cookbook.
PRT summer shows deliver entertainment to Brookings, Brandon

Each summer, the Prairie Repertory Theatre troupe offers Brookings and Brandon communities a theatrical snack. College-age actors from around the country come together to put on four shows. Last year, Brookings performances brought in 6,194 patrons, and Brandon performances 6,224.

“We are eager to begin work on our 2014 season,” said J.D. Ackman, PRT administrative head, and director of theater at South Dakota State University. “We are especially pleased to be presenting four shows never before produced by PRT. Our 44th season will provide outstanding entertainment for the people of Brookings and Brandon.”

This summer, the PRT crew will present “The 25th Annual Putnam County Spelling Bee,” “Making God Laugh,” “The Lone Star Love Potion” and “Shrek the Musical.”

The Brookings shows will be presented in Doner Auditorium in the Administration Building on the SDSU campus, and the Brandon shows will be held in the Brandon Valley Performing Arts Center at Brandon Valley High School.

Tickets will be available beginning June 3 by visiting the online box office at http://sdstate.tix.com, or calling the SDSU Performing Arts Center Audience Services Office at 605-688-6045, and Brandon Audience Services Office at 605-582-8039.

Early-bird season subscriptions are available at a reduced rate if purchased before May 15.

‘The 25th Annual Putnam County Spelling Bee’

Directed by Ackman, the show tells the tale of six adolescents vying for the spelling championship of a lifetime.

A quirky, yet charming cast of outsiders find comfort at the spelling bee—the one place where they stand out and fit in at the same time.

- Brookings performances begin at 7:30 p.m. June 11, and run nightly through June 14, with a 2 p.m. matinee June 15.
- Brandon performances begin at 7:30 p.m. July 17 and run nightly July 19 and 23, with a 2 p.m. matinee July 20.

‘Making God Laugh’

Bob Sylskar directs the South Dakota premiere of this family comedy. The storyline reveals four scenes, each 10 years apart, set at various holidays.

In 1980, a priest, an aspiring actress and a former star football player all return to their childhood home.

The siblings reunite with their empty nest parents, and old family rituals and ancient tensions flare up. Thirty years of celebrations—Thanksgiving, Christmas and Easter—bring changes the family won’t see coming.

As Woody Allen said, “If you want to make God laugh, tell him your plans.”

- Brookings performances begin at 7:30 p.m. June 18, and run nightly through June 21, with a 2 p.m. matinee June 22.
- Brandon performances begin at 7:30 p.m. June 25, and run nightly through June 28, with a 2 p.m. matinee June 29.

‘The Lone Star Love Potion’

SDSU assistant theater professor W. James Wood directs the funny farce. “The Lone Star Love Potion” tells the story of a wealthy Texas rancher, Mr. Stancliffe, who passed away.

His butler, the maid and the rancher’s niece, who is his only living relative, gather for the reading of the will. Oddly, Miss Tammy Jo Harper, a neighbor, also shows up.

As expected, the niece inherits everything. Then, the butler produces from the safe, a reputed love potion. Before long, everyone is sipping the sample with hilarious results.

- Brookings performances begin at 7:30 p.m. July 30, and run nightly through Aug. 1.
- Brandon performances begin at 7:30 p.m. July 17 and 18, and Aug. 2, with a 2 p.m. matinee Aug. 3.

‘Shrek the Musical’

SDSU associate theater professor Billy Wilburn directs the musical based on the DreamWorks Animations film. “Shrek the Musical” brings the hilarious story of everyone’s favorite ogre to life on the stage.

In a faraway kingdom turned upside down, things get ugly when an ogre, not a handsome prince, shows up to rescue a feisty princess.

Throw in a chatty donkey, a bad guy with a temper and a dozen other fairy tale misfits, and there’s the kind of mess that calls for a real hero. Luckily, there’s one on hand, and his name is Shrek.

- Brandon performances begin at 7:30 p.m. July 9, and run nightly through July 12, with a 2 p.m. matinee July 13.
- Brandon performances begin at 7:30 p.m. July 16 and 17, and Aug. 2, with a 2 p.m. matinee Aug. 3.

For more information on PRT, visit www.prairierep.org.
Donors committed more than $63 million to the South Dakota State University Foundation in 2013, breaking the previous record for gifts and pledges in a single year by $10.4 million.

The 2013 total of $63,027,612 came from 9,268 different donors. The previous one-year high of $52.6 million was set in 2008.

The record-breaking fundraising comes on the heels of It Starts with STATE: A Campaign for South Dakota State University, which received $255.7 million in gifts and pledges over a six-year period. The campaign officially ended April 24, 2013.

The Foundation had received $30.9 million in pledges and gifts between January 1 to April 24 of 2013 as donors made a strong push to be part of the historic campaign. In the final eight months of 2013, another $32.1 million was raised.

"It would not be unusual for donors to pause and catch their breath after being the driving force behind a record-setting campaign," said Steve Erpenbach, president and CEO of the Foundation. "The fact is, our donors have been energized by the extraordinary progress made by SDSU as a result of the comprehensive campaign and continue to invest in this university in a very generous fashion."

In the past seven years, donors have now committed just shy of $290 million to SDSU. Prior to the campaign, giving to the Foundation averaged about $14 million a year.

The leadership gifts for the proposed new football stadium are an example of that momentum. Philanthropist T. Denny Sanford and the Dana and La Dawn Dykhouse family announced $12.5 million in gifts during halftime of this year’s Hobo Day game to jumpstart the fundraising effort for a new stadium. Other leadership gifts from 2013 included seven-figure commitments for the Thomas A. Daschle Center for Public Policy and Leadership, a proposed development to construct a new Alumni Center as an addition to the Foundation’s Lohr Building and the expansion of the Performing Arts Center.

Forty-five new named scholarships were created and 52 named endowments (41 that will ultimately support scholarships, 11 that will support programs) were also started in 2013.

An Endowed Professorship in Structural and Construction Engineering initiated by 1953 civil engineering graduate John M. Hanson was completed. Nadim Wehbe is the first holder of the John M. Hanson Endowed Professorship.

"The commitment donors continue to make to our students, faculty and institution is truly remarkable," said Keith Mahlum, the Foundation’s vice president for development. "Their investments are making a profound impact on our campus, within our state and throughout the region. We appreciate their generosity and look forward to forging new relationships as we set our sights on future opportunities."

University leaders and the Foundation have announced a new initiative aimed specifically at student success. The effort includes the Jackrabbit Scholarship Initiative, which seeks to raise an additional $2.1 million annually for scholarships, endowed faculty and professorships, and capital improvements that include the renovation of 99 existing classrooms over the next five years.

Finding new ways to raise money for children is mission for Jade Possail.

Recently, the SDSU senior came up with the idea of engraving children’s handwritten thank you messages to Children’s Miracle Network on coffee mugs and selling them to raise money.

The advertising and apparel merchandising double major began fundraising for CMN in 2011 when she was named Miss Eastern Plains at the Miss SDSU pageant. Her fundraising efforts continued in 2012 while she served as Miss Lake Alvin, and now as Miss S.D. State Fair 2013.

Miracle Mugs in pink, orange, blue and green are available for purchased for $15 on Possail’s Facebook page at https://www.facebook.com/MissStateFair

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Student raises money for children with ‘Miracle Mugs’ continued on page 15
Grant offers rural health professionals interdisciplinary palliative care training

A grant from the South Dakota Comprehensive Cancer Control Program will allow faculty from the University of South Dakota/Sanford School of Medicine, the South Dakota State University College of Nursing and the University of Sioux Falls to offer an interdisciplinary palliative care educational workshop to health-care professionals practicing in a rural or frontier setting.

A palliative care team consists of doctors, nurses, social workers and other professionals who guide patients and their families through any stage of a serious, life-threatening illness including choosing curative treatments. The $6,513 grant was awarded to LifeCircle, a statewide coalition of institutions, organizations and people committed to improving palliative and end-of-life care in South Dakota.

The daylong seminar will take place in Winner this September, according to Dr. LuAnn Eidsness, chair of internal medicine at USD/Sanford School of Medicine and a member of the LifeCircle advisory board. The location was chosen because it is close to two reservations—Pine Ridge and Rosebud—which also have need of this expertise.

Katie Bloom, assistant professor in social work at the University of Sioux Falls; Mary Minton, associate professor at the SDSU College of Nursing West River Site in Rapid City; and Mary Isaacson, assistant professor for SDSU College of Nursing, Sioux Falls campus, are developing the workshop with Eidsness.

Helping patients and their families

“All health-care providers care for people at the end of life,” Eidsness said, “but we can do a better job of helping people die well and helping families deal with their loved one’s dying and death.” Trained palliative care professionals can help families put advance directives and care plans in place that can improve the quality of the patient’s remaining life.

Specifically, Eidsness sees the need for better pain and symptom management, which result from discussions about the diagnosis, expectations and care goals earlier in the course of the illness.

Though some palliative training is available to medical and nursing students, this grant will help educators reach practicing professionals who work with these patients every day, according to Eidsness.

“If we can educate some, they will take that knowledge back to their workplaces and pass it on,” she said. Participants will receive continuing education credit for the workshop.

Educating health-care professionals

In fall 2012, Minton and a team of researchers gathered information on the palliative and end-of-life services offered at 455 of the 688 health-care facilities in South Dakota. These included clinics, assisted living centers, specialty clinics, hospice and home-health providers, hospitals and nursing homes.

The researchers found that the staff at 80 percent of the facilities surveyed had no palliative care training and those at 73 percent had no training in end-of-life care. The project was funded by the South Dakota Department of Health Comprehensive Cancer Control Program.

This workshop will help “fulfill the identified educational needs of these health-care professionals,” Minton said.

Lexi Haux, program coordinator for the S.D. Comprehensive Cancer Control Program, explained that though the survey highlighted the need for palliative care training, the LifeCircle project also fulfills two key health priorities. It speaks to the health needs of cancer survivors who are now living longer and helps address health disparities among Native Americans through delivery of palliative and end-of-life care services.

“We felt it was a strong fit with our program,” Haux said.
Concussion research charts pre-injury ‘normal’

A blow to the head was once referred to as “seeing stars” or “having your bell rung,” but these days coaches, athletes and parents are taking concussions more seriously.

An important step to recovery for athletes who have sustained an injury involves knowing what was normal. A team of SDSU researchers led by associate professor Bernadette Olson is providing these valuable pre-injury baseline measurements for youth in southeastern South Dakota.

Beginning in 2011, Olson and her team developed a protocol that includes a neuro-cognitive assessment tool called ImPACT, balance testing and quality-of-life measures. All are designed to help evaluate injuries and develop a care plan appropriate for each athlete.

“We have more than 1,000 students who are current in the database,” she said proudly. Her team does yearly testing for nine area schools—Arlington, Brookings, Castlewood, Deubrook, Elkton, Estelline, Lake Preston, Oldham-Ramona and Sioux Valley.

Helping rural schools comply with law

In 2011, South Dakota passed legislation requiring that any player who sustains a head injury be removed from the game immediately and not be allowed to return until a health-care professional declares him to be symptom free. The law applies to all schools who participate in South Dakota High School Athletic Association sports.

Compliance with the law is especially difficult for small school districts, most of which do not have an athletic trainer, Olson explained. The project is supported through a collaborative research grant from Avera Health and the SDSU College of Education and Human Sciences.

Making a difference for injured athletes

Brookings High School athletic trainer Angela Brown can see the impact of Olson’s work. All Brookings High School student-athletes have yearly baseline testing. This year hockey and soccer players were added.

Over the last two and a half years, 60 of the approximately 650 student-athletes have sustained concussions—some more than once, according to Brown. Those who have sustained one concussion are at higher risk for subsequent concussions. Because of this baseline testing, Brown is able to show parents and student-athletes where the player was and where he is now.

“It’s objective data that shows the effect the concussion has had on cognitive functions, memory and reaction

Scholarship winner works on renewable energy storage

SDSU doctoral student Hong Jin has been named recipient of the Joseph P. Nelson Graduate Scholarship Award. Since August 2011, Jin has been working as part of a project to use biochar, a byproduct of transforming plant materials into biofuel, to develop more cost-effective ways of storing renewable energy. His adviser is assistant professor Zhengrong Gu.

The research is supported by the U.S. Department of Agriculture and the North Central Regional Sun Grant Center. The scholarship, given each year to an outstanding grad student, recognizes original scientific research and provides up to $8,900 for tuition and expenses.

Jin, originally from China, earned his bachelor’s degree in applied chemistry from Harbin Institute of Technology in 2006. For the next two and a half years, he worked on coatings for BYD Electronics, which makes handset components and assembles mobile phones.

Gu seeks to replace expensive, activated carbon that coats electrodes in current storage devices with carbon material from inexpensive biochar.

Using his knowledge in chemistry and industrial coatings, Jin is investigating different methods of converting biochar into nanostructured carbon materials that will hold more energy. His dissertation research focuses on developing biochar-based carbon materials for supercapacitors.

For a lithium battery, the carbon must have a relatively high graphene content. However, for use on the electrodes of a supercapacitor, “the carbon must have well-developed hierarchical pores,” Gu said.

The two devices can be used in combination—supercapacitors to capture energy from wind turbines and lithium batteries to provide long-term storage.

To manufacture these devices, the United States now imports most of its activated carbon from Asia. With America’s abundance of wood-based biomass and agriculture residue as raw materials, Gu said, “We can use those materials as biofuel so the U.S. does not have to depend heavily on petroleum, and at the same time, generate good active carbon to export.”
Drivers are only concerned if there is ice on the bridge, but an SDSU graduate student has been awarded for her work on studying ice under the bridge.

Brittney Ahrenstorff, a graduate student in the civil and environmental engineering program, was named the Outstanding Graduate Student of the Year for 2013 for the Mountain-Plains Consortium, a university transportation center formed by eight universities stretching from Utah to North Dakota.

She and winners from other regions received their honors at a banquet in Washington, D.C., Jan. 11.

Ahrenstorff’s research measures and evaluates ice loads on bridge piers in South Dakota. The two-year study’s main objective is to calibrate the ice load equations given in bridge-design codes and develop realistic estimates of the loads imposed by the ice formation found in South Dakota rivers.

The study is co-sponsored by the Mountain-Plains Consortium at SDSU and the South Dakota Department of Transportation.

While data from this winter is still being collected, Ahrenstorff, of Lake Park, Iowa, is writing her thesis on information from the first winter. The 2012 SDSU undergrad expects to complete her master’s degree in May and then she plans to begin work as a design engineer with Kiewit Engineering Company in Omaha, Neb.

Data is being collected from the I-29 southbound bridge over the Big Sioux River south of Brookings and the bridge over the James River on U.S. 14 east of Huron.

**Design ‘more than adequate’**

“Based on our first-year collection we have seen that the design practices are more than adequate.” In fact, the state may be “overdesigning their bridges,” Ahrenstorff said. The research includes measurements of ice thickness and taking ice core samples that are crushed to measure the ice’s strength.

But the key component being measured is the impact load that “ice cakes” deliver to the bridge piers, the 2007 Harris-Lake Park High School grad said.

To measure that, Ahrenstorff and her faculty supervisors designed a system in which a 12-inch hollow pipe was fastened to a bridge pier with steel plates. The plates also hold in place 12 string gauges, which record the strain being applied from the ice. That can be mathematically converted to force, she said.

Because there is not an established method for this type of testing, Ahrenstorff said she and her faculty mentors devised this one based on feasibility, accuracy, ease of installation and cost.

**First award for SDSU in five years**

Nadim Wehbe, head of the SDSU Civil and Environment Engineering Department and director of the Mountain-Plains Consortium program at SDSU, calls Ahrenstorff “an individual of great intellect, solid work ethics, high aptitude and genuine personality.” She has a 4.0 GPA as a graduate student.

“Her research work will undoubtedly result in significant advancement in the field of bridge engineering,” Wehbe said.

As the Mountain-Plains Consortium Student of the Year, Ahrenstorff received $1,000 and an all-expense paid trip to Washington, D.C., to attend with a guest the banquet of the Council of University Transportation Centers.
Undergrads share corn stalk, cancer research with legislators

State legislators had the opportunity to learn about research to combat colon cancer and to determine the material properties of corn stalks as a value-added agricultural product from two South Dakota State University students at the annual Student Poster Session in Pierre March 6.

Taylor Suess, a senior in mechanical engineering, and Alex Olinger, who is in his third year of the pharmacy professional program, explained their projects in a poster session at the Capitol Rotunda. Suess and Olinger, who were members of the SDSU football program, received Joseph F. Nelson scholarships to support a portion of their research. Olinger is also enrolled in the Van D. and Barbara B. Fishback Honors College.

Increasing effectiveness of chemo

Olinger, a native of Ames, Iowa, investigated how a drug called 2-deoxyglucose, or 2DG, can improve the effectiveness of the chemotherapy medication 5-fluorouracil. Used in combination with 2DG, the chemotherapy dosage can be decreased by 30 to 50 percent, yet kill the same percentage of cancer cells.

“Using that much less chemo helps lower the side effects for these colon cancer patients who are already under such stress,” Olinger added, and that leads to “a better quality of life after chemo and after they beat their illness.”

Essentially, colon cancer cells live in what Olinger calls “a challenging environment, low in oxygen.” Consequently, they take in more sugar molecules and make more enzymes to utilize sugar. That makes them vulnerable to 2DG, which the cancer mistakes for sugar.

“It’s the same as a sugar molecule with one chemical group changed,” he said. The cancer cells take it in as glucose but can’t use it to make energy. Thereby, 2DG helps weaken the cancer cells and make them more susceptible to 5-fluorouracil.

Olinger worked with cell cultures under the supervision of assistant professor Hemachand Tummala, but the drug combination is now being evaluated in animal studies.

“I gained insight on how the research model works,” Olinger said, noting he will use the techniques and problem-solving skills he learned the rest of his life. He’d also like to be involved in clinical research during his pharmacy career.

“Alex is so hardworking and disciplined,” said Tummala, who is also his honors program mentor. In summer 2011, Olinger began his research work, continuing beyond his scholarship funding until the project was completed, even working on weekends when necessary. “He’s so dedicated,” Tummala added.

While Olinger was killing cancer cells, Suess was examining corn stalks that might one day be used to make biofuel.

Examining properties of corn stover

Biofuels research has focused on the thermo-chemistry behind production, but assistant professor Stephen Gent, Suess’s research adviser, said “feeding the material into any type of chemical reactor presents another set of challenges that will literally make or break whether this technology can be commercialized.”

Suess, who is from Columbus, Neb., explained: “Corn stover is low density, soft material.” When it’s fed through a conveying system, auger or any pneumatic system, he pointed out, “It will plug pretty easily.”

Suess worked with graduate student Ozan Ozdemir at the Materials Evaluation and Testing Lab, or METLAB, to test the corn stover, a mixture of stalks and leaves.

The two researchers did hardness and 3-point bending testing on the corn stalks. Suess found that the material from the top of the stalk is stronger than that from the base.

“Corn stover is a composite material,” he said. “It has different fiber resistances at different parts of the stalk.” In addition, the stalk’s properties will vary, even from field to field, based on growing conditions and the corn variety.

Suess said the project has given him “a pretty wide perspective on taking scientific research and applying it to topics that have a high impact in our state.”

When engineers design feeding systems, they will model the flow of the materials. To do this, they consult the American Society for Testing Material, ASTM, manual of standards that gives them guidelines for how a material behaves.

None exist for corn stover, according to Suess. When it’s finely ground, corn stover “could be representative of a soil sample.”

Essentially, Suess and Ozdemir validated previous experiments with the goal of “understanding the structural properties of corn stover so it can be considered a material like metal or wood.”

Gent said, “Taylor is an inherently talented engineering student.” In the long run, Suess’s research will contribute to the development of a materials standard for corn stover.

From this research project, Suess said he’s learned that ag-related work might be his focus as a career or in graduate school.
**Sandra Bauman named February Civil Service Employee of the Month**

Sandra Bauman has been named the February Civil Service Employee of the Month.

Bauman has worked in the University Student Union for four years, three months. As a member of the custodial team, she assists in cleaning and setting up the union for various events and day-to-day operation.

In letters of support, co-workers said Bauman is a hard worker with high standards.

They said she is diligent, takes a considerable amount of pride in her work and described her as a conscientious professional who makes time for everyone in need.

Bauman is married to Curtis Bauman and has two stepchildren, Joshua Bauman and Danielle Pikul, and two grandchildren, Kendra and Connor.

All Employee of the Month selections are determined through a nomination process by the Civil Service Advisory Council.

Bauman would like to thank all of the people that chose her for Employee of the Month, and extend a big thank you to her co-worker Ashley Buller.

Each Civil Service Employee of the Month receives an appreciation monetary gift from the F.O. Butler Foundation. The trustees of the foundation recognize the importance of civil service employees and take this opportunity to thank them for their exemplary service.

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**Former SDSU journalism prof signs new book**


Cecil, a professor in the journalism and mass communication department from 2006 to 2013, now serves as director of Wichita State University’s Elliott School of Communication.

Since he conducted the research and wrote the book during his tenure at SDSU, Cecil donated more than 400,000 pages of FBI files to the archives at Briggs Library, including files on journalists and publications during the Hoover era.

“The book looks at cases where the FBI worked with Hoover’s ‘friends,’ selected journalists who helped obscure what Hoover and his staff were doing,” Cecil said. “These friends published favorable articles that marginalized journalists who were critical of Hoover and promoted the FBI.”

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**Sam Kean featured as Harding lecturer**

South Dakota native Sam Kean recently spoke at SDSU’s Performing Arts Center as part of the Harding Distinguished Lecture Series.

Kean, who was born and raised in Sioux Falls, is a popular science writer and speaker with a unique take on both science and science history. He is a reporter at "Science" magazine.

“I’m always excited to come back and speak in South Dakota,” said Kean. “I loved growing up here, and there’s always a big crowd to welcome me back.”

He recently released “The Violinist’s Thumb,” which was described by the Washington Post as “a thoughtful work of literature that allows all of us—the nonscientists, the reading public—to grapple with the big questions about the history and future of our genetic code.”

“I want people to appreciate the wonder of science,” Kean said. “I always emphasize the stories in science—those are the things that stick with people, and you can learn a lot of science just through stories, I think. More specifically with this talk, I think people will come away with a deeper understanding of genetics and just what an amazing molecule DNA is.”

Kean also is the author of the New York Times bestseller “The Disappearing Spoon.”

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**SDSU professor J.D. Ackman received the South Dakota High School Activities Association’s Distinguished Service Award**

SDSU professor J.D. Ackman, left, received the award from SDHSAA executive director Wayne Carney.

Professor and director of theater J.D. Ackman was honored by the South Dakota High School Activities Association Feb. 8 following the state’s one-act play festival in Brandon. He received the association’s Distinguished Service Award in the officials category.

Ackman has served as a one-act play judge at regional and or state competitions for more than 20 years, and is one of 20 individuals to receive that award this school year. He was one of three judges officiating the 2014 Class A state competition.

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**Brookings native and former SDSU professor Matt Cecil recently returned to campus to sign copies of his new book, “Hoover’s FBI and the Fourth Estate: The Campaign to Control the Press and the Bureau’s Image.” University Press of Kansas released the book in February.**

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Richard Meyers began working at SDSU in the summer of 2012 with a goal in mind—he was going to start an American Indian studies major. "In a state with nine different federally recognized tribes, it was vital, and the existing minor indicated that the desire for the major was long-standing," said Meyers.

Meyers is the tribal relations director and program coordinator for the American Indian studies program that opened for enrollment fall 2013 with the new major highlighted.

Alongside coordinating American Indian studies, Meyers teaches an upper level anthropology course, and plans to teach more once he solidifies the administrative work that goes along with developing the program. "I've been exploring how to make the SDSU AIS program applicable to the Plains Indians and to South Dakota," said Meyers.

Meyers' work at State ties into the notion of being elected and appointed to national organizations.

He was appointed to serve on the Task Force on Cultural Heritage, a subsidiary to the world's largest anthropology organization called the American Anthropological Association. The group meets annually to discuss methods to build a strong, multifaceted approach to cultural heritage issues in the United States.

Meyers was also appointed to serve a three-year term on the American Indian Studies Association board of directors. Headquartered at Arizona State University, the annual conference brings together scholars from around the country to discuss problems and solutions for American Indian studies topics.

South Dakota roots

Meyers grew up off and on both the Pine Ridge and Rosebud Reservations. He attended Crazy Horse School in Wanblee on occasion, but family travel led him to Massachusetts, where he graduated high school in 1993.

After high school, Meyers attended Amherst College in Massachusetts, and graduated with a bachelor's degree in anthropology in 1997. After that, he came back to South Dakota and taught at Crazy Horse School, but in 1998 decided to pursue a graduate education.

He graduated in 2004 with two master's degrees—one in cultural anthropology from Arizona State University, and the other, a master's in English from Middlebury College in Vermont, completed during the summer months. He also worked as an anthropology instructor at Middlebury College from 2005 to 2007.

Meyers then went on to complete his dissertation within the anthropology department at the Smithsonian Institution in Washington, D.C. Upon completion in 2008, Meyers started working for the U.S. Department of Interior's Office of the Assistant Secretary for Indian Affairs as a writer and editor.

In 2012, he left federal service and made his way to Brookings to develop the American Indian studies program.

American Indian studies major

When developing the American Indian studies major, Meyers wanted to make sure students received a rounded cultural awareness. The major provides a broad base for understanding past, present and possible futures of American Indians.

Course curriculum includes the historical and contemporary significance of American Indian experiences.

Bernadette Olson tapped for MAATA Hall of Fame

Bernadette Olson was inducted into the Mid-America Athletic Training Association Hall of Fame at the organization’s 35th annual symposium March 28 in Des Moines.

Olson, an associate professor in the department of health and nutritional sciences, has been a certified athletic trainer since 1988 and licensed in South Dakota since 1994.

She becomes the third member of the MAATA Hall of Fame with SDSU ties. Former SDSU athletic trainer Jim Booher was inducted in 1996 and State graduate Kathie Courtney was honored in 2006.

Mary Beth Zwart, who nominated Olson, said Olson’s roles in the athletic training field have changed. “When you look at the components of athletic training she’s done all of them. She has provided patient care to collegiate student-athletes, she educates future practitioners and provides concussion outreach services to local communities,” said Zwart.

Olson also has spent years leading the athletic training field. She has been vice president and president of the board of directors for the Board of Certification Inc., the credentialing organization for athletic training. She also served as the MAATA secretary from 1996 to 2004.

Olson has presented at some 20 international and national conferences.

She received the Most Distinguished Athletic Training Award in 2011 from the National Athletic Trainers’ Association. Olson was named the recipient of the Paul Grace Leadership Award and Dan Libera Service Award from the Board of Certification Inc. Olson was honored as the 2007 South Dakota Athletic Trainer of the Year.
Chemistry labs chosen to test, evaluate gadget

continued from page 8

24 in Brookings and 12 at the University Center in Sioux Falls.

Hirko, his students and other professors were having major issues with the previous Vernier drop counters. When liquid hit the side of the drop counter and entered the device, the internal electronics became corroded and the units did not operate correctly.

“We were sending the counters back to Vernier all the time, and they’d fix them, send them back—it was a never-ending cycle,” said Hirko. “I got along well with Jack Randall at Vernier, and every time I called or emailed him, I asked if they were revising the drop counter or improving the technology.

“I was kind of hounding them on it,” said Hirko. “I said once you’ve got a new one, I want to evaluate it, and Jack said ‘you’re on the list.’ So, last semester I got a call from Vernier and they said they were sending me their newest prototype.

“I was kind of amazed because I know Vernier does business with a lot of huge universities,” said Hirko about being chosen to test the drop counter. “It shows that they respect what we are doing here in our program. "It’s really an honor they chose us to pilot their redesigned product.”

The redesigned drop counters were recently launched for mass markets, and SDSU purchased 24 to replace the others.

According to Hirko, the new drop counters work beautifully, and students do not have the difficulty they did before. “Students get a thrill seeing the red light blink for every drop,” said Hirko. “The new counters are very reliable and show high-quality data.”

SDSU students use more than just Vernier’s drop counters in lab. “Since 2010 we’ve been using Vernier’s LabQuests, pressure transducers, visible spectrometers, conductivity cells, platinum REDOX electrodes and more,” said Hirko. “It’s really an honor they chose us to pilot their redesigned product.”

Concussion research charts pre-injury ‘normal’

continued from page 9

time—factors that are otherwise hard to evaluate,” she said. Comparing these post-injury results to the baseline scores gives a student-athlete and his family evidence of the changes resulting from the concussion.

The ImPACT report must then go to a medical professional who is trained to interpret the results. “Without that training, ImPACT is not as useful and could be misleading,” explained Dr. Verle Valentine, a credentialed ImPACT consultant/researcher at Sanford Health who sees patients in Brookings twice a week and helped formulate the state concussion law.

By using clinical evaluation and the information from ImPACT testing, a trained provider can then recommend what accommodations in terms of physical and academic activity need to be made to allow him to recover, according to Brown.

That can involve pulling the student-athlete out of school or providing a longer testing time or less reading and homework. Typically, the student-athlete is out of the game for at least 10 days, she added.

Sometimes players are reluctant to tell the athletic trainer that they’ve suffered an injury, she admitted. But she tells them: “I’m looking out for their whole well-being. From the neck on down, it can be taped, braced and splinted, but from the neck up, it’s a totally different deal.”

As word gets out about this program, Brown said, “It’s gaining a lot of support.” People recognize the value of the testing, she added. “Parents thank me.”

Coming back without a baseline test

Kristi League of Brookings knows how difficult it is to assess when a child’s brain has returned to normal without baseline testing. Her daughter Charlotte, a figure skater, sustained a concussion. It took 20 days until she was cleared for normal activity. Brookings figure skaters have not participated in the program.

“We were making assumptions on healing rather than having somewhere to go from,” League explained. She favors baseline testing for all school children, saying even a fall from playground equipment could result in a head injury.

The ImPACT test can be used for children 11 and older, according to Valentine.

The skating club is developing a concussion policy and putting in place a compliance officer—all prerequisites to Olson’s team conducting pre-injury testing.

Learning from experience

All Lake Preston students in grades 7 through 12 have had baseline testing, regardless of whether they participate in school sports, according to superintendent Tim Casper. Students can be injured in a physical education class or an auto or bus accident, he pointed out.

The district did ImPACT testing for two years through a free program at Dick’s Sporting Goods before it became involved in Olson’s program.

Casper’s motivation came from his son, who sustained three concussions playing football in high school and college. ImPACT testing helped Casper decide to pull his son out of college football. “He had tough days with headaches and difficulty just getting through college,” he explained.

“We have to educate people,” Casper said. “This game is not as important as your son’s or daughter’s well-being. Sometimes you have to make tough decisions.”

Samuel Schimelpfenig, a pediatrician at Avera’s McGreevy Clinic who has worked with Olson’s project, said, “This is valuable work because it focuses on an area where we still need more information—how best to manage these young athletes with concussions.” Schimelpfenig is seeing more patients with concussions in part due to increased awareness of symptoms and the need for professional evaluation.

“It’s important for athletes in rural communities to have the same level of expertise as found in high-level concussion clinics,” said Valentine. However, it’s a challenge for rural health-care professionals to keep up to date when they see only a few cases a year. That’s why the support of specialists is important, according to Olson.

Brown foresees a pre-injury, baseline-testing protocol one day becoming a part of the sign-up process for all activities. “With Bernadette and SDSU, we could really be a role model community.”
Students to serve as members of international happiness panel

than 5,000 community service hours,” said Larson, who received the Presidential Volunteer Service Award. “But I decided to stop logging hours. I realized that just doing the service work for my own happiness was enough, and I no longer needed that outward recognition.”

Giving back in Brookings

At SDSU, she stays involved on campus by serving as marketing chair for Chi Omega sorority, assistant grand pooba for marketing on the Hobo Day Committee, and photographer for the Collegian.

“We do a lot of community service and volunteer work with our Xi Theta Chapter of Chi Omega,” said Larson. “All of our fundraising proceeds go toward the Make a Wish Foundation. We’ve put on ‘Skating for Wishes’ events, and participate in ‘Relay for Life’ each year.”

Larson expects to graduate from State in May 2015. After college, she wants to work in public health, writing and promoting social campaigns for nongovernmental organizations.

“Happiness is something everyone can achieve,” said Larson. “And helping and giving back locally is a step in the right direction.”

‘Miracle Mugs’ raise money for kids

and at Choco Latte in Brookings.

“I walked in one day and Donna Behrend (the owner) handed me a cup of coffee, and said ‘Here, I hope it inspires you.’ Not 10 minutes later, I thought of the Miracle Mug idea,” said Possail. “I love the idea of being an entrepreneur. Donna is a local businesswoman who has a zest for life that we can all learn from.”

Miracle Network children from South Dakota have written six thank you messages, and nearly 100 mugs have been printed at the Print Lab on campus.

The South Dakota Wheat Commission sponsored the cost of the mugs and Huron Regional Medical Center sponsored the tag costs. All proceeds go directly to Children’s Miracle Network.

“Sometimes people may not know exactly what their money does,” said Possail. “It could go to the family for gas, hotel rooms, medical equipment and treatments, or activities for their other children. CMN helps pay for all those things, and the money South Dakotans donate stays in the state.”

After graduation, Possail wants to advertise for a global nonprofit. “I love to fundraise for a good cause, and it would be great to work for Children’s Miracle Network in the future,” she said. As for pageants, Possail will compete for the title of Miss South Dakota in June.

Celebration of Faculty Excellence recognizes university’s best

continued from page 1

- William Gibbons, professor of biology and microbiology, received the F.O. Butler Award for Excellence in Research.
- Donald Auger, associate professor of biology and microbiology, received the F.O. Butler Award for Excellence in Teaching.
- Suzanne Stluka, food and family program director for SDSU Extension, received the F.O. Butler Award for Excellence in Service.
- James Paulson, associate professor of journalism and mass communications, received the Edward Patrick Hogan Award for Teaching Excellence.
- Teresa Seefeldt, associate professor of pharmaceutical sciences, received the Edward Patrick Hogan Award for Teaching Excellence.
- Jonathan Jenks, distinguished professor of natural resource management, received the Excellence in Graduate Student Mentoring Award.
- Alvaro Garcia, professor/SDSU Extension specialist, dairy science, received the Excellence in Outreach and Engagement Award.
- The Common Read Committee received the Excellence in Building Inclusive Community Award.

Distinguished Researchers and Scholars

- David Clay, professor of plant sciences and director of the South Dakota Drought Tolerance Center, was recognized by the College of Agriculture and Biological Sciences.
- Adam Hoppe, assistant professor of chemistry and biochemistry, was recognized by the College of Arts and Sciences.

- Kendra Kattelmann, professor of health and nutritional sciences and director of the didactic program in dietetics, was recognized by the College of Education and Human Sciences.
- Qi Hua Fan, associate professor of electrical engineering and computer science, was recognized by the Jerome J. Lohr College of Engineering.
- Haifa Abou Samra, associate professor of undergraduate nursing, was recognized by the College of Nursing.
- Debra Farver, professor of pharmacy practice, was recognized by the College of Pharmacy.

Student to serve as member of international happiness panel

continued from page 3

ATTACHMENT I   44
In Memoriam

Sherwood O. Berg, president emeritus, 1919-2014

South Dakota State University President Emeritus Sherwood O. Berg, 94, the first alumnus to serve as the university’s president, died February 16 at United Living Community in Brookings.

His 40-year career included military service, humanitarian assistance as the world recovered from World War II, fostering institutions of higher education to provide learning to all that desire it, and efforts to feed a growing and hungry global population.

Berg took office in 1975 as the institution’s 14th president and served until his retirement in 1984. He came to SDSU after serving as the director of the Indonesia Project of the Midwest University Consortium for International Affairs.

Berg emphasized global perspectives for faculty and staff. During his administration, university leaders formed programs in Syria, Botswana, Senegal and Mauritania, and the number of international students on campus grew.

Berg was also an early proponent of the reciprocity program with Minnesota. In addition, he oversaw the groundwork for the first endowed chair for the university, the Ethel Austin Martin-Edward Moss Martin Chair in Human Nutrition.

Berg Agricultural Hall, named in his honor in 2011, contains the offices of the dean of agriculture and biological sciences, the director of SDSU Extension and the director of the Agricultural Experiment Station. State 4-H offices are located there as well as biology laboratories and classrooms.

A native of Hendrum, Minn., Berg was born May 17, 1919. He enrolled at State in 1940, was on the Jackrabbits basketball team and chosen class president. He was also one of State’s ’44 Kings—a group of Class of 1944 ROTC students whose schooling was interrupted for military service in World War II.

Before leaving for Europe, Berg married Elizabeth “Betty” Hall. He saw action in the Battle of the Bulge and received a Bronze Star.

After graduating from State in 1947, Berg completed a master's degree from Cornell in 1948 and his Ph.D. from the University of Minnesota in 1951.

He was named U.S. agricultural attaché to Yugoslavia in 1951 and three years later was appointed to be the agricultural attaché to Denmark and Sweden.

Berg returned to the University of Minnesota in 1957 as professor and head of its department of agricultural economics. He was named dean of Minnesota’s Institute of Agriculture, Forestry and Home Economics in 1963. In 1973, he went to Indonesia.

In retirement, he and his wife Betty continued their support to the university and the Brookings community. In 1999, they established the Dr. Sherwood and Elizabeth Berg Young Faculty Award to recognize and encourage an outstanding faculty member early in his or her career and to further support his or her professional development within the framework of the university’s land-grant mission.

In particular, Berg enjoyed Jackrabbits sports and was an avid fan of football and basketball.

In addition to his wife, Berg is survived by two children: Mary of St. Paul, Minn., and Bradley of Singapore; two grandchildren: Joseph of Minneapolis, and Monica of Singapore; a brother, Spencer (Phyllis) Berg of Chevy Chase, Md., and 12 nieces and nephews.
Student to present at Posters on the Hill

USD student David Christianson has been selected to present his research poster at the 18th annual Posters on the Hill in Washington, D.C., April 28-29.

Christianson, from Yankton, S.D., will present the results of his research “Design of Nanoscale Compositions for Remineralization of Human Dentin,” one of only 60 posters (out of 600 applications) to be presented at this prestigious undergraduate research event.

Christianson is the only student from South Dakota invited to participate at Posters on the Hill where research posters are on display to Congress, federal agency funding officers and invited guests in the Rayburn House Office Building.

Grigoriy Sereda, Ph.D., associate professor of chemistry, serves as Christianson’s mentor and supervises his undergraduate research in the field of materials chemistry, which includes application of nanoparticles in dentistry and drug delivery. In Sereda’s lab, Christianson has worked to develop Langmuir isotherms, exploring the binding affinity of various molecular functional groups to titanium dioxide nanoparticles.

Muenster University Center expansion celebrated with grand opening

The University of South Dakota celebrated the expansion of the Muenster University Center with a grand opening on Jan. 13.

The new, 31,000 square foot addition not only offers expanded seating with booth and table areas, it also features contemporary dining options with national brands Chick-fil-A, Qdoba and Einstein Bros. Bagels.

“The campus community is very excited for the completion of this project, especially knowing the significance of the MUC and what it means to our student body,” added Tena Haraldson, director of Marketing and Communications at USD.

The celebration included lunchtime entertainment, giveaways and USD student leaders serving as hosts and hostesses.

In addition to celebrating the opening of the new seating and dining areas, the Muenster University Center debuted its new media wall: 16, 60-inch HDTVs spanning 16 feet along the south wall of the cafeteria.

Named for former USD Foundation President Theodore R. and his wife, Karen K. Muenster, the MUC opened Feb. 17, 2009 and was dedicated with a ceremony on May 15, 2009. The expansion was completed at a cost of $11.6 million.
Student honored for research at Sanibel Symposium

USD student Wendi Sapp of Elkhorn, Neb. was honored with the Dell-Intel/O’Brien Award for Undergraduate Students for her research on computationally modeling metal-organic supercontainers at the 54th annual Sanibel Symposium on St. Simons Island, Ga., recently.

Sapp, a senior chemistry major, co-presented a poster with fellow undergraduate Adam Erck, which highlighted their results on “Computational approaches to understanding host-guest interaction of metal-organic super containers.” This research project stems from Rick Wang’s experimental research on supercontainers, including the identification of interesting guest-binding capabilities. Wang is an assistant professor of chemistry. Sapp’s research is also part of Dmitri Kilin’s research group of eight students.

Kilin, Ph.D., who joined the chemistry department in 2010, teaches advanced physical chemistry classes at USD to graduate students, but this fall added an undergraduate computational chemistry course to his teaching repertoire. Class material is focused on time resolved issues of quantum theory as a background to interpret or to predict an outcome of a measurement.

Second group of USD medical students selected for FARM Program

The second group of medical students were selected to participate in the University of South Dakota Sanford School of Medicine’s Frontier And Rural Medicine (FARM) Program.

The six participants from the class of 2017 have also been matched to their host communities for the program: Jed Assam and Keely Krolikowski to Winner, S.D.; Ryan Buse, Mobridge, S.D.; Brooke Jensen, Platte, S.D.; John Person, Milbank, S.D.; and, Meredith Sauer, Parkston, S.D.

The FARM Program is an initiative designed to combat the rural physician shortage by exposing students to the challenges and unique opportunities inherent in rural medicine. Beginning in July 2014, the first group of students in the FARM program will spend nine intensive months in carefully selected host communities during their third year of medical school, working with local physicians and becoming immersed in the communities. The students listed above will begin their FARM experience in 2015.

“The Frontier And Rural Medicine Steering Committee was again impressed by the quality of the applicants that were interested in the program. The communities are excited to be able to host these students,” said Susan Anderson, M.D., director of the FARM Program. “We are appreciative of the ongoing support of Gov. Daugaard, the South Dakota Board of Regents and the South Dakota State Legislature. This is a very exciting initiative for the medical school.”

Anderson added that the FARM students are selected well in advance of their scheduled arrival in the communities so that they can get to know more about their host community and start to build relationships with identified physician coordinators and com-
Mrs. Fischbach was honored with the VFW National Citizenship Education Teacher Award. Here is an excerpt of the award letter:

“The Department of South Dakota Veterans of Foreign Wars and its Ladies Auxiliary is proud to announce that you have won the VFW National Citizenship Education Teacher Award for the Elementary Level 2013 – 2014 for the State of South Dakota. You won this award because of your abilities as a teacher to change our society one day, one class lesson and one student at a time. Your dedication as an educator at Dakota Valley High School, North Sioux City and South Dakota shows the role you play in the important job as a teacher creating new citizens of tomorrow who will lead our nation in all walks of life.”

As part of the award, the VFW provided Mrs. Fischbach the opportunity to travel to Pierre to attend the Teacher of the Year Awards Program. She was introduced at the beginning of the Senate and House legislative session and even met Governor Daugaard. Mrs. Fischbach has been teaching at the SDSBVI for over 35 years and provides instruction in Braille and academic classes on the Braille level, such as math, social studies, and science.

Principal Jodi Carlsgaard is pleased to announce the following students who have been selected as students of the month. For November Blaine Jemming of Woonsocket and Michael McMillen of Yankton were selected. In December Vincent Stuwe of Hoven and Ch’oshgai Roanhorse of Sisseton were the honorees. January’s student of the month was Jordan Harkless of Hayti. Zach Cordier of Aberdeen and Jordan Houseman of Pickstown were selected for February.
Mrs. Christie Hulscher, who teaches health and physical education, organized our “kick off” event for this year’s Jump Rope for Heart in the gym on Valentine’s Day.

Susan Egging, West River Outreach Vision Consultant, will be bringing Mille Smith to Rapid City to provide training for teachers and speech pathologists. Millie Smith is a private consultant for students with visual and multiple impairments. She worked at the Texas School for the Blind and Visually Impaired as an outreach teacher-trainer, classroom teacher of students with visual and multiple impairments, and a resource teacher for academic students who were visually impaired. Millie was an itinerant teacher of students who are visually impaired in the Dallas Independent School District, as well as an instructor at the University of Texas at Austin. She has a Master's degree from the University of Texas at Austin in visual impairment and emotional disturbance. She has published several books and numerous articles. Since retiring in 2000, she has been working as a consultant for the American Printing House for the Blind, helping them develop products for students with visual and multiple impairments.

Dakota Chapter AER (Association for the Education and Rehabilitation of the Blind and Visually Impaired) will be holding its annual conference in Aberdeen in early May. This conference will feature topics ranging from transition and technology to literacy tools and orientation and mobility.

Also underway is planning for the Family Weekend which is held on campus just prior to the start of the summer program. Family weekend is designed to increase parents’ understanding of skills they can reinforce at home and a chance to build support networks including other parents and professionals. It also provides an opportunity for families to meet and learn from adults with vision loss.

We are pleased at the activity being generated on Facebook and Pinterest. We are adding to the information available as a resource for our parents and professionals.

Principal Jodi Carlsgaard attended the Principals’ Joint Conference and a special education teleconference sponsored by SDCASE.

Teacher Lori Peterson is serving on a national deaf-blind work group to correlate the goals for deaf-blind children with the common core standards. The group has been meeting through teleconference and met in Arizona in March.
Superintendent **Marje Kaiser** attended the American Foundation for the AFB leadership conference in Brooklyn. This conference focuses on research and policy. Major topics for discussions included the Ann Sullivan Macy Act which is being introduced in congress, the accessibility of Smarter Balance testing for students with vision loss, and employment. Dr. Kaiser serves on the AFB Board of Directors.

SDSBVI was well represented at the Getting in Touch with Literacy Conference in Rhode Island. Low Vision Specialist **Dr. Marva Gellhaus** and librarian **Pat Geditz** presented on using award winning books with children. Our Braille team of **Mrs. Tevan Fischbach** and **Mrs. Diane Agnitsch** was represented, as were the outreach vision consultants by **Ms. Susan Egging**.

Two staff members, **Diane Agnitsch** and **Dawn Brush** went to the North Dakota Vision Forum to receive additional training on the BrailleNote.

Business Manager, **R.Lee Ginsbach** and Outreach Vision Consultant **Amy Scepaniak** attended the C-SUN technology conference in March. With so many new products on the market, it is necessary to evaluate devices to determine the most versatile and cost effective for use with children in educational settings.
On October 24, 2013, SDSD’s Outreach department visited Minnesota State Academy for the Deaf (MSAD) in Faribault. The group met with director, Roxie Mitchell, and assistant director, Jody Olsen, to discuss the history of the school which recently celebrated their sesquicentennial. Team members toured the campus, observed deaf education teachers and students in classrooms, had opportunities to sign with children of all ages, even chatting with former SDSD students who attend MSAD.

Team members had an opportunity to pose questions, discuss concerns, and compare resources and methods used to ensure our deaf and hard of hearing students have full access to educational experiences. The SDSD Outreach team enjoyed meeting MSAD staff and added several contacts to their professional networks.

On November 13, 2013, Sara Hansen, Service Coordinator, provided a guest lecture to The University of South Dakota’s Dr. Cindy Nelson’s Sioux Falls student teachers cohort. The formal presentation included information about audiograms, hearing loss, ear infections, and tinnitus. The students gained greater understanding of hearing loss through simulations of moderate loss as well as simulations of hearing aids and cochlear implants. The group also learned about bone anchored hearing aids, FM systems, and classroom sound field technology. The session also included a tour of the Audiology Department provided by Sarah Zellmer, SDSD Audiologist.

Communication tips and practical strategies for working with deaf and hard of hearing students in classroom settings were provided. The future educators were also given access to web links and videos of classroom activities related to hearing health for students of all ages and grade levels. Elements of Deaf culture and American Sign Language were also discussed.
Christmas Party with CSD and SDAD

On December 8, 2013, Communication Services for the Deaf (CSD) and South Dakota Association of the Deaf (SDAD) hosted a holiday meal for members of the Deaf Community. Over 100 people gathered at the SDAD Center in Sioux Falls to enjoy a turkey dinner. The entertainment portion of the day starred SDSD clients signing Christmas songs in Santa hats. The songs included, “Rudolph the Red Nose Reindeer”, “We Wish You a Merry Christmas”, and “Jingle Bells.” The event ended with a surprise visit from “Signing Santa!”

Cookie Exchange

Sioux Falls Outreach Consultants Julie Luke and Laura Scholten hosted a signing cookie exchange on Saturday, December 14, 2013. Attendees included hearing mothers with deaf children and mothers from the Deaf community. Deaf moms shared their personal experiences at home and schools. SDSD moms asked questions about situations they can prepare for with their own children. The morning visit ended with everyone exchanging Christmas cookies.
Lakota Nation Education Conference

On December 20, 2013, Nina Ringstmeyer and Kerry Ruth, Outreach Consultants, presented “Maximizing Language in the Home and School” at the Lakota Nation Education Conference. The session focused on increasing language opportunities for deaf and hard of hearing children and those who are at risk for language delays. Attendees were given real life examples, take away activities, ideas to support increased use of language, and methods to expand on the current routines and strategies.

Foreign Language Credit Option

Megan Arhart, student at Stanley County High School, is deaf and uses a cochlear implant. Her postsecondary plans include attending Gallaudet University in Washington, D.C. where a large majority of the student population uses a language other than spoken English.

The foreign language courses offered at local high schools do not fit Megan’s needs or goals. While she attempted a Spanish course, it was difficult for Megan to be successful.

Sarah Lingle, Outreach Consultant, Mr. Timothy Hollar, her principal, and the SD Department of Education worked together assist Megan in registering for a course in American Sign Language which will be shown on her high school transcript as a foreign language credit. This course was offered through Michigan’s Virtual School and the World Languages program, a branch of Michigan Virtual University based out of Lansing, MI. Megan completed the fall semester and is enrolled in the second half of the course this spring.

Sign Class for Children’s Home Society

On January 6 and 7, Sioux Falls Outreach Consultants Kami VanSickle and Julie Luke taught a basic sign language class to foster parents at Children’s Home Society. During the presentation, Julie and Kami shared information about SDSD Outreach and audio-logical services. The benefits of sign language were discussed. Foster families shared their personal experiences with sign language and learned 25 new vocabulary words they can use with their children.
Rush Hockey Night

On Tuesday, February 11, SDSD Outreach Consultants, Kerry Ruth and Nina Ringstmeyer hosted the second annual Rush Hockey family night. Ten clients and their parents attended the game in a luxury suite! The Rush Foundation provided game tickets and the Rushmore Plaza Civic Center provided the suite. Attendees enjoyed pizza, popcorn, and soda donated by the SDSD Foundation.

The event was a great opportunity for students to meet and interact with deaf and hard of hearing peers. Many attendees live in rural areas and rarely meet other individuals with hearing loss. Parents enjoyed sharing stories and experiences with one another. Although the Rush did not win, everyone enjoyed cheering them on!
In-service Update

SDSD Outreach Consultant In-Services

Eileen Anderson ..................... 18
Julie Delfs ..................................8
Carol Johnson ........................ 12
Sarah Lingle ............................. 14
Julie Luke ..................................8
Naomi Mangan .........................4
Nina Ringstmeyer ..................... 14
Kerry Ruth .............................. 19
Jodi Schnider ............................6
Laura Scholten ..........................6
Kami Van Sickle ............. .......................... 12
Total ...................................... 121

In-services and guest lectures are provided by members of the SDSD Outreach team as an extension of support for children and students with hearing loss. These in-services may relate to hearing loss and its educational impact, technical assistance and orientation with hearing aids, cochlear implants, FM systems, sound field systems, and/or interpreters, or educational strategies and materials that may benefit SDSD clients.

Audiology Department News

The following report details audiological services provided to South Dakota children from July, 2013 through February, 2014 on SDSD’s campus or via the mobile lab.

Total Screened: 8639
Total Evaluated: 704
*SNHL Found: 156
*CHL Found: 597
Mobile Sites: 118

SNHL—sensorineural hearing loss
CHL—conductive hearing loss

www.sdsd.sdbor.edu/audiology.htm