Legislature, Governor Approve $6M Renovation Plan for Chemistry Building

The state Legislature has approved the sale of $6 million in bonds to renovate laboratories, classrooms and other parts of the old chemistry building at the South Dakota School of Mines & Technology. House Bill 1021 was unanimously approved by both houses with a Senate vote of 34-0 and a House vote of 67-0. The governor signed the bill into law this spring.

Architectural plans have already been drawn, and construction is expected to begin this fall with the renovated space ready for the fall 2016 semester.

The $6 million in Higher Education Facilities Funds will refurbish about 7,000 square feet of the 26,055-square-foot building and would include three research labs, one teaching lab, two support spaces and faculty offices. It would also bring the building into compliance with the Americans with Disabilities Act.

“We are very pleased with the Legislature’s approval of these renovations. These lab spaces are critical in meeting the demands of our new applied biological science program, as well as our basic chemistry course, which is required of all Mines students,” said SD Mines President Heather Wilson.

The chemistry and applied biological sciences (ABS) programs are housed in the old part of the Chemical & Biological Engineering/Chemistry Building which has had only minor upgrades since 1957.

In its second year, the new ABS major is the fastest-growing program on campus and is projected to be one of the largest, at 150 students, within four years.

Enterprise Institute, Mines to Launch Business Accelerator

The Blackstone Charitable Foundation has awarded the Enterprise Institute a $100,000 grant through the third annual Blackstone Innovation Grants Program. The grant is part of the $3 million Blackstone Innovation Grants Program, which targets nonprofit organizations that strengthen entrepreneurial ecosystems and support high-growth entrepreneurs. This grant will fund the Enterprise Institute to create an Engineering Accelerator Pilot Program in partnership with the South Dakota School of Mines & Technology.

The Engineering Accelerator Program will identify and assist high-growth potential engineering projects in the Black Hills region of South Dakota. Up to 10 selected projects will go through an intensive week-long business boot camp and then will work with business experts and mentors over an additional six months. The goal of the program is to identify and launch new high-growth businesses and to create knowledge-based jobs in South Dakota.

Enterprise Institute Executive Director Tim Weelborg said, “We’re excited to launch this pilot program with the generous financial support of the Blackstone Charitable Foundation to join the buzzing entrepreneurial scene at the SDSM&T and to assist in commercializing cutting-edge, world-class research.”

“With the Blackstone Charitable Foundation’s support, we hope to create a stronger culture of innovation on campus and spin out companies faster,” said Heather Wilson, president of the School of Mines. “This will be a great experiment to catalyze new business formation.”

President of the Rapid City Economic Development Partnership Ben Snow said, “Entrepreneurship is a key component to growing our economy, and the Engineering Accelerator will strengthen the connections between the School of Mines and the regional economy. The ideas and technologies born and nurtured at the School of Mines will be captured and converted into viable local businesses, further enhancing the base of knowledge industries already flourishing here.”

Started in 2011, the Blackstone Innovations Grants are given in coordination with the Blackstone Charitable Foundation’s efforts to spur entrepreneurship around the world. Through the Blackstone Innovation Grant program, the Foundation is providing resources to 20 innovative organizations that directly support entrepreneurs as they pilot, expand or replicate programs that will catalyze the growth of successful businesses, industries and communities.
Mazzucco First from Mines to Win National CEIA Award

South Dakota School of Mines & Technology student and recent Intel intern Mark Mazzucco has been selected as the national recipient of the 2015 Academic Internship Student Achievement Award. Mazzucco is the first Mines student to have earned the honor, awarded by the Cooperative Education & Internship Association (CEIA).

Mazzucco served as a process engineer intern for Intel last summer, where he was also awarded Intel Intern of the Week and ranked first on Intel’s Vanguard for community volunteering.

“Interning at Intel is typically a stepping stone to full-time employment, so the same rigor is focused on the hiring process. It is my understanding that Mark is in the top ten of his class, is a student athlete in collegiate basketball and an active member of various university organizations. After hearing about all of this … I decided to extend him an internship offer. Mark proved that my decision was worthwhile. Mark’s projects were meant to challenge him, and he was able to execute and complete them with limited guidance. Any investment in him is going to be a good one,” said Brent Roberts, Mazzucco’s Intel manager.

Now a junior metallurgical engineering major at Mines, Mazzucco previously earned a bachelor’s degree in psychology at Arizona State University (ASU) in just five semesters, taking more than 20 credits each semester. Mazzucco chose ASU because of scholarship opportunities but regretted not attending a university where he could play basketball. When he was given the chance to join the NCAA Division II basketball team at Mines, he leapt at the opportunity, concurrently attending Arizona State University and Mines during the fall 2013 semester in order to complete his bachelor’s at ASU and turn his focus to his studies at Mines.

“Mark is very deserving of this honor. He is an exceptional student, leader and scholar-athlete and a great example of the more than three-quarters of our students who not just gain experiences through internships but who make a big impression by immersing themselves in their work and surrounding community, said Heather Wilson, SD Mines president.

At Mines, Mazzucco is a contributing member of the basketball team and has maintained a 4.0 grade point average. He was named to the National Association of Basketball Coaches Honors Court last year for his achievements. Mazzucco is also the lead for the Micron Design Team at Mines, working as part of a four-person student team in partnership with Micron, a multinational company specializing in semiconductor devices, on a project of the company’s choice to gain hands-on experience in industry.

He also serves on the Society of Mining, Metallurgy and Exploration Executive Board as his department’s spokesperson. In the community, Mazzucco tutors students in math, reading and science at Meadowbrook Elementary and partners with School of Mines and the special needs community as part of the Mines Buddies program.

He plans on pursuing a master’s degree in materials science engineering at Mines following graduation in May of 2016.

Mazzucco will be recognized at the CEIA Annual Conference in Atlanta March 29-31, where he will also participate in a panel and speak about his internship experience at the evening banquet.

The Internship Student Achievement Award recognizes an outstanding student enrolled in a four- or five-year undergraduate degree program who has participated in an internship between Sept. 1 of the previous year and Aug. 31 of the nominating year.

See Mazzucco on the court and in the lab: https://www.flickr.com/photos/sdsmt/sets/72157651582929082/

Mines Hosts High Plains Regional Science and Engineering Fair

Middle and high school students entered nearly 400 projects in the March 23, 2015 High Plains Regional Science and Engineering Fair hosted by the South Dakota School of Mines & Technology.

Kyra Holzer, Timber Lake High School, was selected as the overall winner and qualifier for the Intel International Science and Engineering Fair in Pittsburgh, Pa., in May. This international fair is the world’s largest pre-college science competition for students in grades 9-12, and it is the annual forum for more than 1,700 high school students from 70 countries to display their ideas and independent research accomplishments.

The United States Army also displayed equipment being developed for the Army’s Future Soldier Systems program during the fair. The exhibit included thermal suits, weapon sights, night-vision devices, aiming lasers, precision targeting devices, developments in body armor, battlefield power generation technology and unmanned aircraft vehicles. Sponsored by the Military Science Department and the local Army Recruiting Station, the Program Executive Office for Soldier Mission brought the equipment from their headquarters in Washington, D.C.
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, educational activities, storytelling, traditional crafts and displays during the annual Cultural Expo March 26 and March 28. Approximately 20 countries were represented.

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, Coca Cola, and Hunan Restaurant.

More than 500 Girls Attend Women in Science Conference

More than 500 girls from middle and high schools throughout the Black Hills attended the Women in Science conference, a one-day career learning workshop hosted by the South Dakota School of Mines & Technology. Sponsored by Youth in Science Rapid City, the free conference was designed to provide young women in grades six through 12 with engaging opportunities to learn about careers in science, technology, engineering and mathematics (STEM).
New Scholarship Established in Honor of Father Kovarik

The Father Peter Kovarik Memorial Scholarship Fund has been established by Mines alumnus Greg Goldey and his wife Laurie in honor of their friend and former Mines student, who passed away last fall in an airplane crash.

A scholarship will be awarded annually to an incoming freshman with an engineering major from the communities Kovarik served in the Black Hills region. Towns include Piedmont, Timber Lake, Isabel, Trail City, Hot Springs, Custer, Edgemont, Hills City, Lead and Deadwood, as well as smaller communities in those areas. The scholarship fund will accept tax-deductible contributions from the public through the SD Mines Foundation.

Goldey knew Peter Kovarik for more than four decades, attending school with him from kindergarten through their years at Mines, even being married by Kovarik.

Kovarik studied at the South Dakota School of Mines & Technology before transferring to St. Mary’s College minor seminary and then finishing his education at the major seminary at Mount St. Mary’s. Ordained to the priesthood for the Catholic Diocese of Rapid City in 1991, Kovarik served as pastor to 11 West River churches and was actively involved in diocesan committees and boards. He received an award for excellence in his role as a chaplain for Fort Meade Veteran’s Hospital and took a sabbatical to attend the Institute for Continuing Theological Education at North American College in Vatican City.

“At Peter’s funeral services, many people, primarily parishioners, spoke of how Peter affected their lives. Peter was a man of action, and he moved people to action. Wherever he went as a priest, he tried to revitalize the parish by bringing people together as a community with new activities, programs and ideas. He challenged people’s old ways of thinking and doing things with the end goal of strengthening the community, but more importantly, he challenged people’s faith,” Goldey said.

“Father Peter started his education at Mines and went on to be a leader of faith in western South Dakota. This is a very kind way to remember him and honor his work,” said Mines President Heather Wilson.

Kovarik is survived by his mother, four sisters and brothers, six nieces and nephews and a great-niece. His sister, Camille, is a Mines alumna, and his nephew, Nathan, is currently enrolled as a senior in electrical engineering.

“Father Peter left this world a better place. … Laurie and I established this scholarship to memorialize Father Peter’s positive and loving influence by helping the youth of his communities enter SDSM&T. Hopefully, we can aid in keeping his works and memory on-going,” Goldey said.

To give a tax-deductible contribution to the Father Peter Kovarik Memorial Scholarship Fund, contact the SD Mines Foundation at (605) 394-2436 or foundation@sdsmt.edu.

Nearly 150 to Attend Networking Event with Day of Excellence Speaker

Nearly 150 female Mines students, faculty members and Black Hills Corporation employees are expected to attend “Learn to Network Like a Pro,” hosted by the South Dakota School of Mines & Technology from 5:30-7 p.m. Wednesday, April 1, in the Surbeck Center ballroom. Sponsored by the Women in Science & Engineering, Black Hills Power, Black Hills Corporation and its gender diversity initiative ASPIRE, the professional development event will feature Day of Excellence speaker Denise Ryan, who will share tips and tricks in her presentation, “Networking Like a Pro (Wallflower, No More!).”

A graduate of the University of South Carolina with a master’s degree in business, Ryan currently works at FireStar as a motivational speaker, where she energizes large corporations and small businesses across America at conferences, board retreats and annual meetings. Ryan is an author, keynote speaker and holds the title of Certified Speaking Professional, a designation awarded to fewer than 10 percent of professional speakers.

The Day of Excellence was developed by Leadership Rapid City Class of 2009 and provides an opportunity for people in the Black Hills region to gather with locally and nationally recognized speakers for personal and professional development.

Symposium Showcases Student Research at SD Mines

Graduate and undergraduate students showcased their research through 47 oral presentations and 51 poster projects at the annual Research Symposium March 31 in the Surbeck Center.

Topics included nanoparticle ink for covert printing and anti-counterfeiting; Sanford Underground Research Facility experiments; printed electronics in space; printed reactive formulations to counter weapons of mass destruction; methods to mass produce Ebola-fighting antibodies; energy-efficient wastewater reuse in power plants; and organic carbon exports within the Upper Rapid Creek Watershed from the current Mountain Pine Beetle outbreak.

“The number of students participating in the symposium has almost doubled compared to last year, reflecting a significant increase of research activities at the university,” said Jan Puszynski, Ph.D., vice president for Research Affairs.

The increase includes the work of faculty, whose new research awards in Fiscal Year 2015 will exceed those received during the last fiscal year by more than 100 percent, Puszynski said.

Henry Kohlbrand, principal consultant for HT Consulting, spoke at the evening awards ceremony. Kohlbrand is an internationally recognized expert in reactive chemicals engineering and has been involved in many areas of product technology, including engineering plastics, antimicrobials, agricultural chemicals, organic chemicals and advanced materials. Prior to establishing his consulting firm, Kohlbrand was the global research and development director for Process & Manufacturing Technology R&D at The Dow Chemical Company. He also served as Dow’s global director of external technology and intellectual asset management and was responsible for external research and development and for Dow’s Offices of Science & Technology in Europe and the Pacific.
Engineer, Meteorologist, Film Consultant Speaks on Record Tornado

Structural engineer and meteorologist Tim Marshall spoke on the destruction of the El Reno Tornado Monday, March 30. Sponsored by the Mines Weather Club, the talk was open to the campus and community, and donations benefitted the American Red Cross.

A well-known scientist and engineer, Marshall has combined his education in structural engineering and meteorology to survey damage from natural disasters. His presentation focused on damage analysis from the El Reno, Okla., tornado, the widest on record with a 2.6-mile-wide path and wind gusts measuring nearly 300 miles per hour. The tornado was responsible for eight fatalities, including three professional storm chasers.

Marshall has conducted more than 100 damage surveys of hailstorms, tornadoes, floods and hurricanes and has consulted on the movie Twister. He helped develop the Enhanced Fujita (EF) scale of tornado intensity and is currently serving on the Severe Local Storms, EF scale and Saffir-Simpson scale committees, the latter of which measures hurricane intensity. He currently lives in Dallas.

“We chose to ask Tim Marshall to speak because his career overlaps both meteorology and engineering. We wanted to not only appeal to the campus and community, but to also share an example of how science and engineering can be blended in a lifelong career,” Brianne Gerber, Weather Club treasurer, said.

Marshall earned a bachelor’s in geography with a concentration in meteorology from Northern Illinois University and master’s degrees in both atmospheric science and civil engineering from Texas Tech University.

9th Annual 5K Dublin Dash

Sporting St. Patty’s Day fare and the luck of the Irish, runners ran for the gold at the 9th annual Dublin Dash sponsored by the South Dakota School of Mines & Technology and the American Institute of Chemical Engineers (AlChE).

The 5K race began on the School of Mines campus quad with a post-race ceremony held at Murphy’s Pub in downtown Rapid City. Prizes were awarded to individuals and groups with the most original costumes.

The main fundraiser for the School of Mines AlChE, Dublin Dash proceeds help defray costs for Mines students to attend the national and regional conferences, as well as fund community outreach efforts and student scholarships.

Mines Hosts Prospective Students April 11

The South Dakota School of Mines & Technology will hold Go to Mines on Saturday, April 11, for high school students exploring their college options.

The event hosts high school students of all ages, particularly juniors and seniors, as well as their parents, who get to know the university’s engineering and science curriculum and research projects. They will also have the chance to view residence halls and explore campus. Current Mines students, faculty and staff will be available to provide insider tips about campus life, the application process, scholarships and financial aid.

A Go Women event will be held as well, offering prospective female students the opportunity to interact with current students to learn about everything from dorms and dining halls to professors and job fairs.

Pre-registration is encouraged but not required. Prospective students and their families may pre-register at www.sdsmt.edu/visit

Another Go To Mines event has been scheduled for July 25.
About Legacy News

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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 Mines news, visit news.sdsmt.edu.

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