

## Distinguished Alumni Award 2010

The 2010 Distinguished Alumni Awards honored five graduates who have pursued excellence in their careers by making outstanding contributions in their professions and to the South Dakota School of Mines and Technology. The awards are co-sponsored by the SDSM&T Alumni Association and the SDSM&T Foundation. This year's Distinguished Alumni Award recipients include:

#### Gaurdie E. Banister, Jr. (MetE 80)

Hailing from Casper, Wyoming, Gaurdie Banister graduated from the School of Mines in 1980 with a degree in metallurgical engineering. He began his career with Shell as a project and production manager in New Orleans, Louisiana, and Bakersfield, California. He then rapidly moved into middle management, including a position as a staff planning associate and asset manager, where he provided leadership and overall direction in Shell's innovative and record-breaking deepwater Auger and Mars platform operations. This included leading a 270-member team of the most strategic growth asset of the company. He was the spokesperson for Shell on live televised business programs including CNN's "Moneyline" and "Who's in Charge."

In 1997, Banister became president and general manager of Shell Continental Companies in Houston where he provided leadership and overall direction, operating in seven states with 800 employees and a net investment of \$1.2 billion. In 1998, he accepted the president USA and executive vice president positions at Shell Services International. He then served as chairman of the spin-off Services Integration Group. In 2001, he became vice president of business development and technology for the Shell Exploration and Production Company, followed by a position as the technical vice president of Upstream Americas. He was responsible for drilling and development activities primarily for the U.S. and Latin America, with a capital budget of more than \$1.5 billion. In 2005, Banister assumed the same position for the Asia Pacific region, with oversight in five countries including Malaysia, Brunei, China, Australia, and the Philippines.

Since December 2007, Banister has served as president and CEO of Aera Energy, LLC in Bakersfield. Aera is one of California's – and the nation's – largest oil producers, delivering 30 percent of the state's oil. It is a stand-alone LLC jointly owned by subsidiaries of Shell and Exxon Mobil and governed by a board of directors with 2009 revenues of \$3.8 billion.

Banister currently serves as a board member for the United Way of Kern County, California, and he is also a trustee for the SDSM&T Foundation. He was recognized as an Outstanding Recent Graduate by the School of Mines in 1991 and received an honorary Ph.D. in community service in 2007.

#### Paul Ching (MS GeolE 73)

Paul Ching, a native of Aberdeen, South Dakota, earned a bachelor's degree in mathematics from Northern State University in 1969 and a master's degree in geological engineering from the School of Mines in 1973.

His nearly 40 years of experience in the oil and gas indus-



From left to right: Larry Simonson (associate dean for advancement), William Pearson, Alan Pelton, Paul Ching, Richard Frank, and Ron Jeitz (regional development). Not pictured: Gaurdie Banister.

In 1970, Frank embarked on a 26-year career at the World Bank/International Finance Corporation (IFC) Group where he started as an investment officer with the World Bank, working throughout Latin America, Asia, the Middle East, and Eastern Europe. At IFC, Frank served as chief financial officer and led the organization to become an AAA borrower in the international markets as well as securing two major capital increases. For his final assignment in the group, he was named managing director where he had oversight for the South Asia and Latin America operations. He also chaired the World Bank's finance committee and the private sector group and coordinated the private sector activities of the World Bank, IFC, and the Multilateral Investment Guarantee Agency.

Frank joined Darby Overseas Investments in July 1997 as chief executive officer. Founded by former Secretary of Treasury Nicholas F. Brady, Darby serves as the private equity arm of Franklin Templeton Investments. Darby has been a pioneer in emerging markets private equity investing and has an on-the-ground presence via 12 offices in Asia, Central and Eastern Europe, and Latin America. Under Frank's leadership, the firm has invested more than \$2 billion in 100 companies and infrastructure projects. He currently serves as Darby's chief executive officer and board director. He is responsible for the management of firm-wide activities and chairman of the firm's private equity, mezzanine finance, and venture capital investment committees.

#### Rear Admiral William Pearson (CE 64)

Originally from Hobart, Oklahoma, William Pearson served as a paratrooper in the 82nd Airborne Division and U.S. Army Reserves from 1956-1962 and worked as a cadastral surveyor doing survey work in Alaska during 1959, the year of Alaska's statehood. He received a bachelor's degree in civil engineering from the School of Mines in 1964 and a master's degree in civil engineering with a specialization in public health from the University of Hawaii in 1968. He also had extensive graduate studies in public health and engineering from the University of Colorado, The Johns Hopkins University, and the University of Minnesota.

Pearson joined the United States Public Health Service



Building the Dream Success Continues

Meet the Student Callers

ACM Team Heading to Egypt

SDSM&T



Non-Profit U.S. Postage Paid Permit #541 Rapid City, SD 57701 try began with Shell where he worked in numerous positions in technical development and planning for the first 10 years. In 1983, he accepted a position as the division engineering manager in Houston where he was responsible for Shell's technical development of its assets in Michigan and the Rocky Mountains. In 1985, he moved to Bakersfield, California, as the division operations manager at Belridge Field. In 1987, Ching returned to Houston as the division production manager overseeing 900 staff in a wide range of business operations. In 1993, he assumed the position of asset manager of the Wasson unit in Houston where his team initiated methodology for implementing carbon dioxide flood in stages in West Texas.

In 1994, Ching accepted a position with Pecten International as the vice president of exploration and production. He was responsible for Pecten's exploration and production business for the Eastern Hemisphere including initiation of further growth in Yemen and China. In 1997, he became president of Pecten Production Co., where he remained for three years, delivering income in excess of \$1 billion. The next decade found Ching exceeding financial and operational targets as chief technology officer and general manager of technology and technical services and as general manager of Sarawak Gas Business for Shell Malaysia. He accepted his final position with Shell International in 2002 in the Netherlands as the vice president of technical research and development. He developed and directed the global exploration and production research and development program. He retired from Shell in July 2007.

Since retirement, Ching has remained active in the petroleum industry, serving as executive advisor for the Advanced Energy Consortium, advisor to the Multi-Chem Group, LLC, and as the independent director for both Ingrain Inc. and Oilsands Quest Inc. Ching was also chairman, CEO, and president of Meridian Resource Corporation where he led a turnaround of the company.

#### **Richard Frank (ME 63)**

Originally from Scottsbluff, Nebraska, Richard Frank received his bachelor's degree in mechanical engineering from the School of Mines in 1963. He continued his education at the Massachusetts Institute of Technology (MIT), earning his master of science degree from the Sloan School of Management and serving as an MIT Fellow in Columbia for two years.

Called to active duty during the Vietnam War, Frank served in both the Army's Engineering and Transportation Corps at the Pentagon and in Saigon. He was awarded the Bronze Star for his service in Vietnam.

(USPHS) Commissioned Corps in 1964 and was assigned for duty at the Pine Ridge and Rosebud Indian Reservations in South Dakota. He then served in a variety of progressively more responsible USPHS engineering, environmental health, and management career development positions around the United States. In 1976 he became director of environmental health for Indian Health Service (IHS) at the USPHS headquarters. In 1986 he became the director for environmental health and engineering at the IHS and was responsible for medical facilities and sanitation facilities design/construction with budgets in excess of \$1 billion.

In 1989, Pearson was elevated to the position of assistant surgeon general, USPHS, with the corresponding rank of rear admiral. That same year, he was also appointed as chief engineer, USPHS. Prior to retiring as a two-star rear admiral in 1994, he also served as acting director of IHS Headquarters Operations and acting associate director of administration and operations with broad agency responsibilities.

In addition to his work for American Indians, Alaska Natives, and other governmental/private organizations, Admiral Pearson was active in global health through special assignments in Southeast Asia, Borneo, and the Pacific where his knowledge of cross-cultural health and engineering practices and use of indigenous resources permitted him to introduce significant improvements in public health practices in those areas. Since his retirement from USPHS in 1994, he has become the founder, president, and chief executive officer of Natural Healing USA, Inc. and Annapolis Street Associates, LLC, and the chief operating officer of Katherine Properties, Inc./LLC.

#### Alan Pelton, Ph.D. (MetE 77 / MS MetE 78)

Originally from Seattle, Washington, Alan Pelton graduated from the School of Mines with a bachelor's degree in 1977 and a master's degree in 1978, both in metallurgical engineering. He went on to earn his Ph.D. from the University of California, Berkeley, in materials science in 1982. Pelton then spent a year as a postgraduate research fellow at Stanford University in the Department of Materials Science.

In 1983, Pelton accepted a position as associate metallurgist in the Ames Laboratory at Iowa State University (ISU). He also served as adjunct assistant professor in the materials science and engineering department at ISU. He later moved to Indiana to accept the position of assistant professor in the materials science and engineering department at the University of Notre Dame where he remained for three years.

See DISTINGUISHED ALUMS page 2

Close-Ups

**Dr. Dimitris Anagnostou** (assistant professor, Electrical and Computer Engineering) had the following journal paper published: S. Shelley, J. Costantine, C.G. Christodoulou, D.E. Anagnostou and J.C. Lyke, "FPGA Controlled Switch-Reconfigured Antenna[DA1]," *IEEE Antennas and Wireless Propagation Letters,* Vol. 9, pp: 355 – 358, April 2010.

Anagnostou also presented some of his papers with his collaborators at the IEEE Antennas and Propagation Society International Symposium and CNC/USNC/URSI National Radio Science Meeting, Toronto, Canada, from July 11-17, 2010. The papers included: B. D. Braaten, D. E. Anagnostou, Keith W. Whites, "Mutual Coupling Between Coax-fed Rectangular Microstrip Patch Antennas Embedded in Layered Uniaxial Anisotropic Dielectrics"; J. Costantine, S. Shelley, C. G. Christodoulou, D. E. Anagnostou and J. C. Lyke, "Controlling Switch-Reconfigured Antennas Using FPGAs"; and N. Sepulveda, D. E. Anagnostou, M. T. Chryssomallis and J. L. Ebel, "Integration of RF-MEMS Switches with a Band-Reject Reconfigurable Ultra-Wideband Antenna on SiO2 Substrate."

In addition, Anagnostou was a co-chair for several sessions at the IEEE Antennas and Propagation Society International Symposium. The sessions included Oral Session 222 "Reconfigurable Antenna Arrays" and Oral Session 329 "Pattern Reconfigurable Antennas."

Daun Davids, master's candidate in Robotics and Intelligent Autonomous System, recently received second place in the graduate poster competition at the National AISES Conference in Albuquerque, New Mexico, held November 11-13, 2010. Davids' work in robotics earned her the \$1,000 award and certificate. Also present at the AISES conference were students Jaron Noisy Hawk (freshman, Interdisciplinary Sciences) and Jessica Tsingine (senior, Industrial Engineering), AISES advisor Dr. Robb Winter, AISES co-advisor Abena Songbird, and Tiospaye Engineering advisor Dr. Carter Kerk.

**Dr. James D. Feiszli** (director, Music Activities/professor, Humanities) has been appointed director of the International Conductor Exchange Program for the American Choral Directors Association (ACDA). ACDA is the major professional association for U.S. choral directors with over 25,000 members.

The International Conductor Exchange Program has three aims: 1) To create connections between potential leaders of the U.S. choral community with their counterparts across the globe, 2) To forge stronger relationships between the American Choral Directors Association and choral associations across the world, and 3) To raise the visibility and leadership role of the American Choral Directors Association in the global choral community.

Feiszli is also chair of ACDA ChoralNet, a global communications network which he developed over the past seventeen years.

**Dr. Scott Kenner** (professor, Civil and Environmental Engineering) traveled to China in November 2010 with the ASCE Environmental and Water Resources Professionals Delegation to China. The agenda included visits to the China Institute of Water Resources and Hydropower Research (Dr. Kenner was a co-leader for this meeting), College of Water Science at Beijing National University, and Beijing Gaobeidian Sewage Treatment Factory. Kenner also visited the Guilin Water System Construction and Development Co., the Two Rivers and Four Lakes Project in Guilin, and the Shanghai Water Resources Foundation.

Dr. Keith W. Whites (professor/Steven P. Miller Chair) presented the following conference paper: Keith W. Whites, Tony Amert, Lori Groven, and Brian Glover, "Low loss, high index of refraction metamaterials based on multiple enhancement mechanisms," *International Conference on Electromagnetics in Advanced Applications (ICEAA)*, Sydney, Australia, pp. 569-572, Sept. 20-24, 2010.

Whites also had the following journal paper published: Dimitris E. Anagnostou, Ahmed A. Gheethan, Anthony K. Amert, and Keith W. Whites, "A direct-write printed antenna on paper-based organic substrate for flexible displays and WLAN applications," *IEEE/OSA Journal of Display Technology*, vol. 6, no. 11, pp. 558-564, 2010.

### School of Mines Receives \$1.25 Million to Create Mining Center of Excellence



Corporate representatives gather with President Robert A. Wharton, Ph.D. to show their support of the Mining Center of Excellence.

Officials from the South Dakota School of Mines and Technology and four major mining companies - Alpha Natural Resources, Barrick Gold of North America, Kiewit Mining Group and Newmont Mining Corporation - have announced a combined gift of \$1.25 million to the Department of Mining Engineering and Management.

This major gift will be used to create the Mining Center of Excellence, designed to enhance the department's curriculum and the overall educational experience while supporting the School of Mines mission. During this initial phase of creating the unique center, the four mining companies stand out as being the major donor-investors with a combined total of \$1.25 million spread over five years to provide funding for student and faculty support plus laboratory and curriculum development within the center.

"We are fortunate to have an engaged industry, which we see as our primary stakeholder in that they hire all our graduates and we have been successful in 100 percent placement in the last 5 years," said Shashi Kanth, mining engineering and management department head. "The addition of this center will further enhance the quality and competence of our graduates and attract further research into the School of Mines, which in turn will benefit the school, the state, and the industry that these graduates go to."

The center is focused on elements that include upgrading the existing laboratories and adding new modules to the curriculum to better train mining engineering graduates to meet the challenges of the industry. Advanced safety and simulations, dispatch and advanced explosives laboratories, and a lecture series on sustainable development are all part of this center of excellence.

"Today, there are many companies, as well as our alumni, that continue to play the very important role of providing annual funding as well as creating endowments that will support our activities well into the future," Kanth said. "And yet, to reach our potential in serving South Dakota and the worldwide mining industry, we continually invite more companies and people to join as investors. There are certainly more than four, but today we are proud to recognize these major commitments with excitement about the life-changing benefits we will be able to keep giving our students and graduates."

The gift was announced during the 125th anniversary year of the School of Mines, which has its roots in the mining industry. Founded in 1885 to support the growing research needs of the industry led by the former Homestake Gold Mine, the university has long had a foundation in mining engineering.

From the initial transformation to include management with the core mining curriculum that began in 2004, industry partners have provided the necessary funding that has allowed the mining program to become one of the most vibrant and populated in the nation. The 100-strong student body has active representations on the national scene through the Society of Mining, Metallurgy and Exploration; the International Society for Explosives Engineering; and international events such as the International Intercollegiate Mining Competition. Students have also placed highly in national student design contests, making a significant mark for themselves.

As the department continues with new and revitalized curriculum, it has identified continuous improvement opportunities presented through active collaborations with industry. These exercises resulted in the creation of the Mining



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The SDSM&T Foundation is a non-profit corporation operating under the 501(c)(3) designation assigned by the Internal Revenue Service.

Rod Pappel, President Sandra Carlson, Director of Programs and Communications Peggy Dixon, Project and Donor Programs Coordinator David Gnirk, Regional Development Ronald Jeitz, Regional Development Brad Johnson, Vice President of Development Leah Mahoney, Charitable Gifts Officer Judd Nielsen, Regional Development Officer Valerie Olney, Charitable Gifts Officer Larry Simonson, Associate Dean for Advancement Lana Thom, Director of Financial Services

The Foundation Update shall be used as a forum to advise alumni and friends of important events occurring on campus and within the Foundation. I extend thanks to the individuals who have contributed news reports to the Foundation Update and to the Rapid City Journal, our publisher.

Sandy Carlson, Editor

Center of Excellence.

"On behalf of the entire university, I would like to thank each of these companies for their generous gift," said School of Mines President Robert A. Wharton, Ph.D. "We are fortunate to have such visionary partners to help support our mission of developing the leaders of tomorrow."

#### About the companies:

**Alpha Natural Resources:** The company is America's third-largest coal producer and produces, processes, and sells steam and metallurgical coal from more than 60 active mines and 14 coal preparation plants located throughout Virginia, West Virginia, Kentucky, Pennsylvania, and Wyoming.

**Barrick Gold of North America:** The company is the gold industry leader, with interests in 25 operating mines and a pipeline of projects located across five continents, in addition to large land positions on some of the most prolific mineral districts.

**Kiewit Mining Group:** The company is one of North America's leading producers of high-quality, high-energy coal and is ranked as one of the top 10 coal producers in the nation. Kiewit owns or manages four surface coal mines located in Montana, Wyoming, and Texas.

**Newmont Mining Corporation:** The company is primarily a gold producer, with significant assets or operations in the United States, Australia, Peru, Indonesia, Ghana, Canada, New Zealand, and Mexico. Newmont is one of the world's largest gold producers and is the only gold company included in the S&P 500 Index and Fortune 500.

#### Distinguished Alums From Page 1

In 1989, Pelton relocated to Fremont, California, for a position as a research manager in the metals division at Raychem Corporation where he worked on the development and commercialization of shape memory alloys. He became technical manager in 1991, and in 1993, he accepted the director of research position at Nitinol Devices and Components Inc. In 2004, Pelton began lecturing at various institutions in California, starting with the department of material science and engineering at the University of California, Berkeley, where he was also a research faculty member. In 2007, he began lecturing at Stanford University in the Department of Materials Science and Engineering. He also lectured at the California Polytechnic State University in San Luis Obispo. In 2007, Pelton served as a distinguished research fellow and director of materials research at Nitinol Devices and Components which was part of the Johnson and Johnson Company in Fremont, California. Since 2008, he has served as the company's chief technical officer.

Pelton has received several awards including the Outstanding Recent Graduate Award from the School of Mines, Outstanding Teacher of the Year Award from Notre Dame, and Best Paper Awards for several of the 110 papers he has written. He also holds three patents and has authored five books.

### Building the Dream Campaign Success Continues

Throughout the past several months, Foundation and university personnel have continued to spread the news of the success of the Building the Dream capital campaign as many campaign "launchings" have been held. Building the Dream, which began in 2004, will raise \$50 million for scholarships, faculty, the student experience, and capital improvements.

"The common misconception is that tuition, fees, and state appropriations cover the costs of operating this university," said Brad Johnson, vice president of development, SDSM&T Foundation. "Many of the experiences and routine activities that students, faculty, and administrators have in the course of an academic year are only possible through a variety of designated spending accounts donors have provided through the Foundation."

Alumni who gathered at the gala banquet during the 2010 All-School Reunion in July were the first large group to publicly learn of the Building the Dream campaign. Since that time, alumni from across the United States have had the opportunity to attend small group functions and get together with their fellow Hardrockers while at the same time familiarizing themselves with the campaign.

"We give people the opportunity to stay involved with the campus," said Johnson. "From this continuous process, both on campus and off, we hope to find alumni, families and friends who feel their education added value to their life and who now believe it is worth an investment to see that young people following in their footsteps have access to the same opportunities at the School of Mines."

In addition to the alumni gatherings that are taking place across the country, faculty and staff learned more about the campaign during a campus launching held in October. Johnson played his guitar and sang humorous renditions of

old crowd favorites to the room filled with faculty, staff, and students who afterwards settled in to watch the Building the Dream video.

A month later, students were invited to the Surbeck Center Ballroom to learn more about the Building the Dream campaign as well. After a free lunch, students snacked on popcorn while watching the Building the Dream video, provoking consideration of the important role each of them can play after graduation.

"Traditionally, the face-to-face outreach of the School of Mines has focused on alumni, which of course will remain an important part of what we love to do – but recently we have joined forces with the Student Association and student leaders to educate as many students as we can before they leave campus," added Johnson.

As of December 31, 2010, over \$38.6 million has been raised toward the \$50 million Building the Dream campaign goal.



### Fall Phone-a-thon Student Callers

Twelve students made nearly 6,000 phone calls over ten nights of calling, and the School of Mines Foundation processed more than 500 pledge cards or requests for information during its fall phone-a-thon held from September 26 – October 7, 2010. Pledges and contributions totaled \$106,750.

Held semi-annually, the phone-a-thon

is the most effective way the Foundation has found to reach a large number of alumni in a short period of time. Over \$1.6 million has been contributed by way of the phone-a-thons since fall 1998. Many alumni choose to give unrestricted dollars which are allocated to the area of greatest need on campus. Others choose to direct their funds toward a particular group, department,

endowment, or need on campus.

The SDSM&T Foundation offers our\_ sincerest thanks for the continued? generous support of alumni and friends who have participated in the phone-athon or have otherwise made gifts to the Foundation.

Students participating in the fall 2010 phone-a-thon included:



Laurie Aga is an industrial engineering freshman from Sturgis. She's known that she wanted to attend the School of Mines since she was in seventh grade, and her mother, Karmen Aga, has worked on campus in Research Affairs since 2002. On campus, Laurie is involved with the Unmanned Aerial Vehicle and Aero Design teams. She also likes to read and ride horses in her free time. She decided to help out on the phone-a-thon

because she thought it would be fun to talk to alumni.



Emilee Basta is a sophomore mechanical engineering major from Glendive, Montana. When she is not busy studying, she is active in Phi Eta Sigma and is also part of the SAE Mini Baja Team where she is also the student president of the School of Mines Chapter of SAE. She chose to come to the School of Mines because of the CAMP teams and also because she views the university as a "top-rated school." Emilee joined us

for this, her first phone-a-thon, because she thought it sounded like fun. She added that she needed a few extra dollars, and it is convenient to be able to find a temporary, part-time job on campus.



Tom Cox is a mechanical engineering junior from San Diego, California. He worked on his fourth phone-a-thon because he has experience making calls in a call center, because he had some extra time, and because he likes the free food. After having lived in several states including California,



Conlan Nelson is a five-time phone-a-thon caller and a senior mining engineering major from Denver, Colorado, who will graduate in December 2011. Conlan's mom, Jill Nelson (MinE 82), and dad, Mark Nelson (ChemE 83), are both graduates of the School of Mines who helped him decide that the campus was the right place for him to C pursue his engineering studies. When Conlan is not busy studying, he works part-time at the Deep

Underground Science and Engineering Lab (DUSEL). Conlan enjoys flying and is active in the Hardrocker Flying Club, SME, and ISEE.



Tyler Paul is a senior computer science major from Maysville, Kentucky, who graduated in December 2010. He decided to come to the School of Mines because he has liked the area since he was young. His stepdad, Grant Wenker (GeolE 97) is also a graduate of the School of Mines.



Kathleen Schwabe is a first year graduate student studying geology (ore deposits) who received her undergraduate geology degree in 2010 from the School of Mines. Kathleen hails from Merrimack, New Hampshire, and came to the School of Mines because of the geology program and because of the close proximity to the Badlands and Black Hills. She is active in the Society of C Economic Geologists (SEG). Kathleen worked on



Arizona, Tennessee, Georgia, New Hampshire, and Massachusetts, Tom decided to study at the School of Mines because he feels "it's an affordable

college with an excellent mechanical engineering program." In addition to staying busy with his classes and studying, Tom enjoys music as well as teaching and playing tennis.



Zane Graham is a junior industrial engineering student from Rushville, Nebraska. He is a first-time caller who needed a few extra dollars in his pocket. When Zane is not busy in class or studying, he is active in Triangle Fraternity and was also involved in the M-Week Committee this year.



Josh Green is a senior mechanical engineering student and an eight-time student caller from Peoria, Illinois, who will graduate in May. Josh's dad, Jim Green (ME 73), helped Josh decide that the School of Mines is the place for him, and Josh agrees saying the School of Mines is in his blood. When he is not busy studying and having fun, Josh enjoys playing the guitar, competing in triathlons, and skydiving. He also constructed stadium

seating for two couches in his basement that is fully equipped with a movie projector, surround sound, and a gaming console.



Melissa Heron is a junior transfer student from Lake Powell, Arizona, who is studying geological engineering. She came to the School of Mines at the recommendation of one of her teachers, Donna Benson, whose husband, Dwayne Benson (ME 83), is an alum. Since she's been on campus, she's become involved in the Tech Geological Association, AISES, and the Rock Climbing Club. She worked on this, her first-ever

phone-a-thon, in order to make a few extra dollars. She enjoyed getting to talk to all of the very nice alumni of the School of Mines.

this, her eighth phone-a-thon, because it's fun to talk to alumni and she enjoys working with her friends. This past summer, Kathleen worked in Alaska doing geology-related work.



Grace Sumption is a sophomore geology major from Aberdeen, South Dakota. She transferred to the School of Mines because it was the "only place in-state that offered a geology major and a good place to study geology." When she is not busy studying, she is also involved in the Hot Rockers Dance Team, Tech Geological Association, American Indian Science & Engineering Society (AISES), and the Rock

Climbing Club. She worked on this, her first phone-a-thon, to make some extra money.



Jennifer "Twiggy" Trosvig is a senior applied geology major from Ottertail, Minnesota. She came to the School of Mines because of the location in the Black Hills and because of the small class size. On campus, Jennifer is the vice president for the Society of Economic Geologists and a member of Tech Geological Association. She is also a student ambassador and works part-time for the Admissions Office making phone calls to

prospective students. Jen spent time in Turkey this past summer for a field camp, and she joined us for her fourth phone-a-thon because she enjoys talking to alumni.



Tyler Vogel is a sophomore industrial engineering student from Rapid City. When he is not busy studying, he finds time for a variety of extra-curricular activities including being a member of the School of Mines Cheer Squad, M-Week Committee, and Ski and Snowboard Club. He also says he is "pretty good" at foosball. Tyler participated in his first phone-a-thon because he likes being social and is friends with Josh Green

who persuaded him to give it a try.

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### School of Mines Recognized as One of the Top "Five Star Award" Winners

The National Association of Intercollegiate Athletics (NAIA) recently named South Dakota School of Mines as a "Champions of Character Five Star Award Winner." The Hardrocker Athletic Department earned the number two overall ranking (out of 204 institutions that qualified), scoring 97 out of 100 points based on results obtained from the NAIA Champions of Character Scorecard.

"The significance of this award cannot be underestimated. It demonstrates a clear commitment on behalf of the Hardrocker student-athletes, coaches and administration to promote good sportsmanship, academic excellence, develop positive character and to instill a sense of community service within our university," said Dick Kaiser, athletic director for the School of Mines.

Institutions were measured based on a demonstrated commitment to Champions of Character and earned points in each of the following categories: character training, conduct in competition, academic focus, character recognition, and character promotion. Institutions earned points based on exceptional student-athlete grade point averages and by obtaining zero ejections during competition throughout the course of the academic year.

"I am obviously extremely pleased that South Dakota School of Mines finished second nationally within the entire NAIA," Kaiser said. "This award truly symbolizes the year-long efforts of the entire athletic department, as well as the institution, to make being a student-athlete at South Dakota School of Mines an opportunity for personal and academic growth." The Champions of Character Scorecard was crafted to convert the NAIA's vision and strategy into measurable goals and to monitor progress towards advancing character-driven intercollegiate athletics. The initiative supports performance-driven athletics while defining expectations and standards that drive successful teams and athletics departments.

The School of Mines and other Five Star Award recipients will be recognized on the NAIA Champions of Character website and will receive a special web banner and certificate noting the honor. Presidents, athletics directors, and conference commissioners at award winning colleges, universities, or conferences also will be recognized at the 70th Annual NAIA National Convention in April.

"Winning an award like this really speaks volumes about the student-athletes we have on this campus," said Lady Hardrocker head volleyball coach Tiffany Mastin-McCampbell. "Just the amount of effort they put in during the athletic season on top of an already difficult academic routine is impressive. When you add in the extra hours spent in service to the public and making the community a better place – it truly is amazing."

The NAIA, which boasts a proud reputation as an arena that promotes competitive athletics, academic excellence, and character values simultaneously, will recognize 204 colleges and universities and 20 conferences with the Champions of Character Five Star Award. To receive the award, members scored 60 or more points on the NAIA Champions of Character Scorecard, and confer-



ences named to the list had at least 60 percent of its member schools making the grade with 60 or more points.

"We constantly discuss with our coaches and student-athletes about 'walking the walk' and serving as examples of being a Champion of Character," Kaiser said. "It goes without saying this award and the high national ranking provides validation of what we feel is extremely important within the athletic and academic experience at South Dakota School of Mines."

The Scorecard process is based on the NAIA's flagship program Champions of Character which emphasizes the five core values of integrity, respect, responsibility, sportsmanship, and servant leadership.

"Wow – this is really exciting for the university to receive this type of 'character statement' award that goes beyond the actual competition that takes place on the courts and fields nearly every day," Kaiser concluded.

### Paleontology Research Building to be Named after Martin



Dr. Jim Martin

butions to the field of paleontology, the School of Mines, our students, and the state of South Dakota.

Martin received his bachelor's degree in geology and his master's degree in paleontology from the School of Mines in 1971 and 1972, respectively. He earned his Ph.D. in geology from the University of Washington in 1979 and returned to the School of Mines as an assistant professor of geology and director of the field station that same

The South Dakota the Board of Regents has A recently authorized the as School of Mines to the rename the D Paleontology Research C Laboratory the James E. D Martin Paleontology H Research Laboratory in A honor of Dr. Jim N Martin and his contributions to the field of N

throughout North America, Antarctica, Argentina, Europe, and Australia. He also served as a consultant to the U.S. Corps of Engineers, the Bureau of Land Management, the South Dakota Geological Survey, the R.M. Rangle Corporation, Parsons Engineering, Inc., the John Day Fossil Beds National Monument, the Black Hills Natural Sciences Field Station, the Archaeological Research Center, the Wind Cave Natural History Association, Mobil Oil Company, and the Georgia Southern University Museum. He is the author or co-author of more than 180 papers and abstracts and eight geological maps.

Martin's work has brought national and international recognition to the School of Mines and the state of South Dakota. He received the International Discovery of the Year Award in 1999 from the Royal Geographical Society of London/Discovery Channel Europe and the Department of Defense Antarctica Service Medal. He served as elected president of the South Dakota Academy of Science from 1989-1990 and as a panel member for the National Science Foundation's Biological Research Collections Program in 2004. He is the recipient of grants from the National Geographic Society, the National Science Foundation, and the Bureau of Land Management, and he also received the 2004 Distinguished Alumnus Award from the School of Mines. He was inducted into the South Dakota Hall of Fame in 2008.

Paleontology at the School of Mines has been an integral part of the university for more than 100 years. The 33,000-square-foot James E. Martin Paleontology Research Laboratory provides a safe, environmentally-controlled location for the Museum of Geology's fossil, geological, and archival collections. The building is unique and is the only state-owned building in South Dakota to earn a Leadership in Energy and Environmental Design (LEED) Gold certification.

An event to formally recognize Martin and cel-

During his career, Martin has discovered, excavated, and characterized numerous fossil sites ebrate the renaming of the building will be held in the first half of 2011.

### Asmussen Retires after 27 Years on Campus



Sanna Asmussen

Sanna Asmussen, director of programs and capital campaign coordinator at the School of Mines Foundation, retired on December 31, 2010.

Having worked on campus for over 27 years, Sanna is wellknown by faculty, staff, students, and alumni. Those who have worked

most closely with her have often heard her joke that she has been around long enough to be considered part of the Museum of Geology's fossil collection. Sanna was born and raised in South Dakota and graduated with a bachelor's degree in education from Dakota State University. After three years of teaching business courses to high school students in Minnesota, she married her husband, Ron, in 1970 and moved to Oldham, South Dakota, where she worked at American State Bank for 13 years.

Sanna and Ron arrived in Rapid City in 1983 when Sanna joined the School of Mines. She accepted a position as the executive assistant in the Office of the President and worked in that capacity for four years before taking a position at the School of Mines Foundation. Over the past 23 years, Sanna has done a myriad of jobs at the Foundation, working closely with the Foundation trustees and executive committee along with faculty and alumni.

Sanna has always lived in the moment, enjoyed what she is doing, and willingly accepted whatever assignments come her way with a smile. Her philosophy for life is straightforward: "You need to laugh, you need to learn, and you need to love." She has truly lived out this philosophy throughout her time at the School of Mines, and it spills over into her interactions with everyone she meets.

Sanna looks forward to the lack of a schedule she will enjoy after retirement, and she hopes to spend more time traveling, gardening, reading, and practicing yoga and tai chi. Undoubtedly, she will also continue to share her laughter, her learning, and her love with those around her for many years to come.

### School of Mines Holds 162nd Commencement

The School of Mines held its 162nd commencement on Saturday, December 19, 2010, in the Rushmore Plaza Civic Center Theatre. Nearly 90 graduates received bachelor's, master's, or doctoral degrees.

The Honorable Kathie L. Olsen, Ph.D. was the commencement speaker and Anastasia M. Baker (MetE 10) represented the student body.

Olsen is vice president of international programs at the Association of Public and Land-Grant Universities. Through strengthening ongoing activities and developing new international programs, her leadership and vision have incorporated a global dimension as an integral part of the

modern public research university.

Prior to her current appointment, Olsen was confirmed by the U.S. Senate as the deputy director and chief operating officer of the National Science Foundation (NSF). Olsen has also served as the senior advisor to the NSF's chief human capital officer; associate director and deputy director for science in the Office of Science and Technology Policy; chief scientist for the National Aeronautics and Space Administration; and other high-level positions.

Anastasia Baker of Rapid City has served as a peer advisor, a Welcome Week orientation leader, and a 2008 orientation co-chair. She was also active in Alpha Omega Epsilon, the Inter-Fraternal Council, the Society of Mining, Metallurgy and Exploration, and Material Advantage.

Also during the ceremony, the School of Mines honored five alumni with Distinguished Alumni Awards (see page 1, Distinguished Alumni Award 2010). The Distinguished Alumni Awards are presented to graduates who have made outstanding contributions in their professions and to the School of Mines. This year's recipients included Gaurdie E. Banister, Jr. (MetE 80), Paul Ching (MS GeolE 73), Richard Frank (ME 63), William Pearson (CE 64), and Alan Pelton (MetE 77).

# SDSM&T Foundation Around and About



Gillette, Wyoming: Riley Roberdeau (ME 06), Scott Durgin (MinE 90), Lisa Durgin (ChemE 93), Jeane Hull (CE 77), John Hull (MinE 77), Heidi Gross, Jerry Tystad (MinE 77), Doug Wagner (MinE 70).



Gillette, Wyoming: Ken (CE 75) and Kathy (Chem 74) Miller and Lisa (ChemE 93) and Scott (MinE 90) Durgin.



Billings, Montana: Dick Kaiser, Matt Stevens (Chem 92), Rod (EE 95) and Sarah Bach, Larry Simonson (EE 69).



**Butte, Montana:** Hardrocker fans attend a tailgate party before the showdown between the South Dakota School of Mines and Montana Tech.



Knoxville, Tennessee: Bonnie and Steve (EE 69) Ogden, Joe Hansen (ME 54), Kay Wolfe, Charlene Dubs (MetE 81), Dana (Chem 67) and Dr. Sally Peterka, and Dan Baumiller (ChemE 99).





Nucor in Norfolk, Nebraska: Front Row: Terry Rasmussen (MetE 91), JD Russo (MetE Summer Intern), and Kyle Reisenweber (MetE 07). Back Row: Karl Barfuss (IE 08), Dwight Eisenbraun (CE 81), Blake Werning (MetE 09), and Joy McClure (MetE 07).



**St. Louis, Missouri:** Front Row: Rosemary Schmidt, Pam Roeber, John Mohr (EE 56), Susan Frasch (ChemE 80), Lynne Wictor (ChemE 87), Arnie Mueller (Phys 54), and Betty Price. Back Row: Chuck Schmidt (MetE 63), Merle Symes (ChemE 73), Denny Tiede (ME 67), Russ Roeber (ChemE 70), Lydell Frasch (EE/Phys 79), Bill Hoskins (ME 51), John Knie (MetE 99), and Jay Price (ME 63).



**Overland Park, Missouri:** Front Row: Matt (ME 06) and Kari Wolff, Dan Schurman (EE 76), Justin Tomac (IE 93), and Terry Katzer (ChemE 70). Back Row: Mike Fischbach (ME 64), Terry Bartels (ME 71), and Betty and Randy (EE 70) Monson.



Birmingham, Alabama: Front Row: Henry Simwanza (MinE 97) and John Stalcup (MinE 92). Back Row: Victor Mwaba (MinE 01) and Dan Lerew (MetE 99).



**Overland Park, Missouri:** Front Row: Wade (EE 07) and Jenny (ChemE 07) Johnson, Landon, Justin (ME 06) and Sara Wenner, and Jessica Berg. Back Row: Nick Peeke (ChemE 98), Lee Harms (CE 62), Perry Dinger (ME 03), Andy Kannenberg (CEng 04), and Dakota and Adam (EE 03) Berg.



Hunstville, Alabama: Front Row: Theresa Longcor, Julia Lamont, and Chuck Benson (ME 60). Back Row: Dave Handel (CEng 03), Ross Lushbough (ChemE 71), Jim Lamont (ChemE 73), Scott Trites (EE 77), and Tex Longcor (EE 64).



Naperville, Illinois: Front Row: Crystal Garstang (CE 02), Terry Coughlin (ChemE 70), Rebecca Pope (MetE 97), Norm Hansen (EE 65), and Batzaya (ChemE 02), Michelle, and Amgalan Tumur. Back Row: Kyle Garstang (IE 02), Gary Van Cleave (EE 94), M.J. Green (CE 78), Tom Tveten (GeolE 71), Dale Bryson (CE 60), and Eric Broughton (EE 97).

# SDSM&T Foundation Around and About



Naperville, Illinois: Front Row: Amanda Gough (CE 04), Kristi Hostman, Marilyn Wilgocki, and Allan Hins (MetE 59). Back Row: Aaron Gough (ME 03), Randy Hostman (CE 88), Orie Barnes (MetE 78), Eric Jin (MS ME 92), and M.J. Green (CE 78).



East Windsor, Connecticut: Front Row: Sara Trautman-Weier (CE 99), Deb Bienert (EE 78), Carol Matzke, Carla Bue, and Mary Lou Scott. Back Row: Josh Weier (IE 00), Bill Herman (EE 73), Cliff Bienert (CE 79), Rich Bue (EE 71), Craig Scott (Chem 70), and Errol Matzke (Math 58).



Pittsburgh, Pennsylvania: Front row: Susan Booty Banks (GeolE 75), Drew Gildemeister, Teresa Gildemeister (IE 94). Back row: Monique and Steve (EE 92) Uttecht, Dennis Poage (EE 67), Ray Dennis (CE 77), Tom Banks, Dave Gildemeister (MetE 93), Suresh Santhanam (Metro 79), and Ron Jeitz (CE 69).





Havervill, Massachusetts: Front Row: Judy Jongeling, Rob Uttecht (CSc 95), and Betsy Wilhelm. Back Row: George Jongeling (ME 66), Dennis Krause (EE 68), and Jim Wilhelm (Chem 62).



Wilmington, Delaware: Front Row: Jack (ME 74) and Gail Hale, Maynard Raasch (ChemE 37), Darwin Wika (ChemE 63), Mike Mueller (GeolE 67), and Roger Hawley (CE 72). Back Row: Steve (EE 77) and Mel Cooper, John Larson (ChemE 67), Eric Marzluf (ChemE 71), Gaylord Olson (EE 61), Larry (GeolE 85) and Takako Van Stone, and Ron Jeitz (CE 69).



Plymouth, Minnesota: Front Row: Kathy Stechmann (Math 69) and Elwood 'Pete' Peterson (ChemE 50). Back Row: Brad Johnson (EE 92), Kent Hoisington (ME 88), Dave Kramer (MetE 66), Rose Pekarek (CSc 86), Scott Pekarek (EE 86), Leslie Eisenbraun, and David Stechmann.



**Roseville, Minnesota:** Front Row: Clayton Foster (EE/CSc 93), Judd Nielsen (IE 95), and Mark Fiegen (ChemE 79). Back Row: Doug Johnson (ChemE 83), Melanie Fiegen (CE 79), and Brad Johnson (EE 92).



Woodbury, Minnesota: Front Row: Richard Allen (EE 66), Mary Jane Ries, Holly Maudsley (ChemE 95), Olive Schoessler, Glen Giacoletto (MS Chem 78/MS ChemE 84), Bev and Jim (ChemE 68) Neuharth, and Lowell Hanson (EE 61). Back Row: Olav Maehle (ME 70), Gerry Ries (ChemE 68), Jay Van Hove (CE 97), Jim Curnow (ChemE 64), Don Schoessler (ChemE 49), Bob (MetE 74) and Karen Ringgenberg, and Brad Johnson (EE 92).



**Peoria, Illinois:** Front Row: Kermit Velder (ME 93) and Heather Shoup (CE 95). Back Row: Jacqueline and Steve (ME 90) Hurd, and Yvonne (MinE 78) and Brian (MetE 77) Hoop.



Twin Cities, Minnesota: Front row: Mary Ann Smith, Melva Cain (Chem 69), Cheryl Birkeland (CSc 86), Gloria Oveson, Michelle Claymore (IE 97), and Judd Nielsen (IE 95). Back row: Rollo Cain (ME 78/MS ME 85), Brad Johnson (EE 92), Lowery Smith (GeolE 51), Glen Oveson (EE 63), Dean Birkeland (EE 86), Doug Johnson (ChemE83), Manalee Johnson (Chem 82, MS Chem 84), Kate Hardegger, and Rich Hardegger (ChemE 91).



**Peoria, Illinois:** *Ritch Larsen (ME 75), Mike Langerman (ME 72), Jason Pape (ME 04), Jim Green (ME 73), and Sean Hayes (ME 10).* 



**Peoria, Illinois:** *Daniel (CE 01), Ruth, and Kayla MaryAnn Stanton.* 

#### For the seventeenth straight year, the Friends of Devereaux Library is presenting the Nostalgia Night film series. This year's ten films are collectively named "Living Legends" and each film will feature a silver screen legend who can claim the title septuagenarian, octogenarian, or nonagenarian.

Movies in the "Living Legends" series will be shown for ten consecutive weeks from January through March. Film titles include: *The African Queen; Paint Your Wagon; Life with Father; Sands of Iwo Jima; Houseboat; Ride the High Country; The Lion in Winter; The Spiral Staircase; The China Syndrome;* and *Bus Stop.* 

In January 1995, the Friends of Devereaux Library incorporated the Nostalgia Night film series at the Elks Theatre as a way to boost the success of the library. The Nostalgia Night series is now an eagerly anticipated event in the community and brings in a considerable amount of

## Living Legends

income on behalf of the Devereaux Library.

Funds raised from past Nostalgia Night proceeds have been used to create and improve the Downtime area of the library, purchase oak tables specially constructed and purchased for electronic reference resources, renovate the staff room, and purchase a new outside book return. Funds have also been used to purchase new study tables and chairs and to build a very popular collection of more than 500 classic films and educational videos on VHS and DVD for checkout and a collection of audio books. Additional projects include new furniture in downtime, and an electronic learning center named "i-hub" which includes a giant LCD television/computer monitor, DVD player, speakers, and furniture.

Most recently the Friends of Devereaux Library provided a custom made cabinetry to display one or the region's precious artifacts. The original engineering drawings for the Crouch Line Railroad are now on display in the Devereaux Library. The drawings were completed by a School of Mines professor in the early 1890s and have been archivally restored and preserved.

Nostalgia Night sponsors include: Black Hills Regional Eye Institute; Brink Constructors, Inc.; Dean Kurtz Construction; Dick & Nancy Gowen; Family Thrift Center; Lynn, Jackson, Shultz & Lebrun PC; (mostly) Schnauzer Station; Pet Pantry; RESPEC; SDSM&T Alumni Association; SDSM&T Foundation; United Corporation; and West Plains Engineering.

Season tickets are available at the Devereaux Library, the Elks Theatre, and Bag Ladies. Tickets for individual films will be sold at the theatre the evening of the film on a space available basis. For more information, contact the Devereaux Library at (605) 394-1262 or visit their website at http://friends.sdsmt.edu

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### **Robert Leroy Sandvig**

Dr. Robert L. Sandvig (ChemE 44), beloved husband, father of three, and grandfather of nine, died peacefully at his home on November 25, 2010.

Sandvig was born in Lead, South Dakota, on September 11, 1923, to Julia Rosette and Peder Martin Sandvig. While growing up in Lead, he was active in many school and church activities including scouting in which he attained the rank of Eagle Scout. He excelled in the classroom throughout high school and was valedictorian of Lead High School Class of 1941. After high school he enrolled at South Dakota School of Mines and Technology graduating in June 1944 with a bachelor's degree in chemical engineering. After a brief stint with the National Advisory Committee for Aeronautics, he joined the Navy and served as a Gunnery Officer on the USS Quincy until 1946. After the war, Sandvig returned to the School of Mines as an assistant to professors teaching first year college chemistry. It was this experience that convinced him to obtain his advanced degrees and become a professor. He received his master's degree in chemical engineering from the University of Cincinnati in 1948 and his Ph.D. in 1953 from the University of Colorado.

In 1949, he accepted a position at the School of Mines as an instructor and began a lifelong commitment to his passions: science and teaching. Over the next forty years, he shared his knowledge and love of science with his students. He had a sincere concern for the welfare of his students, and he remained very active in student activities as he worked his way from instructor to department head. He was well known around campus for the great rapport he had with his students, and he earned their respect and admiration by fostering an environment that encouraged friendship and teamwork while promoting a strict standard of excellence. The relationship he had with his students is best summarized in a letter one of his former students wrote upon Dr. Sandvig's retirement, "... He was a scientist, engineer, educator, counselor - and most of all a friend."

In August 1973, Dr. Sandvig was promoted to professor and head of the Chemical Engineering Department. During his tenure as department head, he proved to be a very competent and effective administrator. He is remembered around campus for his efforts in recruiting and for acquiring money from industry to support the department and for establishing the first ChemE Advisory Board. Under his leadership, the Chemistry and Chemical Engineering Departments were successfully merged. He became the first department head of the combined departments in 1985, remaining in that position until he retired in 1987. As stated in *The Hardrocker*, Dr. Sandvig "... is considered to have been one of the most effective administrators the institution has had."

After retirement he continued to foster his love for science and teaching as he volunteered at a local elementary school where all the students knew him as "Grandpa Bob," and he gave an annual demonstration to the fifth and sixth grade class on the laws of chemistry.

Bob was an active member of the First Presbyterian Church in Rapid City serving as clerk of session for many years. He transferred his membership to the First Presbyterian Church in Mankato, Minnesota, when he moved to be closer to his oldest grandchildren. He was also a lifetime member of the Scottish Rite.

Sandvig was a kind and gentle man, and a devoted husband, father, and grandfather who had a special ability to make everyone laugh. He loved spending time with his family, fishing, and playing cribbage.



### Bob Looyenga

Dr. Bob Looyenga, 71, died on November 11, 2010, as a result of mesothelioma, a lung disease caused by asbestos exposure.

He was born October 21, 1939, in Emmons County, North Dakota, the son of William and Dorothy (VanBeek) Looyenga. He graduated from high school at Pollock and then attended and graduated from Hope College in Holland, Michigan. He received his master's degree and his doctorate degree in analytical chemistry from Wayne State University, Detroit, Michigan.

Robert married Marilyn Fugazzotto on June 29, 1963. He taught middle school math in Mandan, North Dakota, and later at Elliotville, New York. He also taught high school chemistry at Sacramento, California. The family moved to Rapid City in 1972, and he taught freshman chemistry, analytical chemistry, and instrumental analysis at School of Mines for 25 years from 1972 until 1992. He was also a forensic chemist for the Pennington County Sheriff's Office and for the Rapid City Police Department. The Department of Criminal Investigation, the FBI, and the National Forest Service also benefited from Looyenga's testimony as an expert witness in many court cases.

He was very active in community affairs. Christian missions and music were his passions. He was an active member of Westminster Presbyterian Church, serving on numerous committees and singing in the church choir. He was a member of Dakota Choral Union and the Kantari Joyful Noise. He was also affiliated with the Allied Arts Fund Drive, serving on the board for many years and as president for one year.

He also enjoyed his garden and working in his yard.

Before his death, Looyenga established the Bob Looyenga Faculty Development Fund to provide support the Chemistry Department at the School of Mines by assisting faculty members within the department. Contributions to this fund can be made online (<u>http://foundation.sdsmt.edu</u>), via telephone (800) 211-7591, or by mail to SDSM&T Foundation, 501 East Saint Joseph Street, Rapid City, SD 57701.



### Mark Polenz



Mark Polenz, 52, passed away peacefully at home in Rapid City on October 2, 2010. Mark was born June 1, 1958, in Vermillion to Ralph and Sharon Polenz. He grew up in Rapid City, attending Rapid City Public

Schools. He graduated from Stevens High School in 1976 and from the School of Mines with a bachelor's degree in civil engineering in 1982.

He had an entrepreneurial spirit and as a young college graduate started Polenz Land Surveying. Through this work, he grew to know the Black Hills so well and never ceased to enjoy them. He owned and operated Polenz Land Surveying for 26 years, and then, in 1991, Mark and friends partnered to start the Firehouse Brewing Company in Rapid City.

He married Sheri Bain on March 26, 1994, in Deadwood. They enjoyed life with family and friends in Rapid City and in recent years in both Rapid City and Pasadena, California.

Through the years, Mark also found joy in walking, cooking, and attending Bronco games. As a young man, he loved family skiing, baseball, football, and track. His father was his mentor in many ways including his love of sports. One of the highlights of his youth was kicking in the Punt, Pass, and Kick Competition during halftime of the Denver Bronco Football Game, and so, a lifelong Bronco fan was created.

Mark had many family connections to the School of Mines. His sister, Lisa Hermanson (GeolE 80), brother-in-law, Larry Hermanson (CE 79), brothers Kent Polenz (GeolE 83) and Daniel Polenz (CE 90), and uncle, Daniel Dake (CE 55), are all School of Mines graduates.

Mark touched many people with his kind and loving soul. His family has established the Mark Polenz Memorial Scholarship at the School of Mines in his memory. Contributions to the scholarship may be sent to the SDSM&T Foundation.

### School of Mines Teams Dominate at Regional Programming Contest

recently competed in the North Central Region of the ACM Programming Contest, and all five teams finished in the top 15. The School of Mines competed against over 200 teams from South Minnesota, Iowa, Dakota, Kansas, Nebraska, North Dakota, western Michigan, western Ontario, and Manitoba, and one of the School of Mines teams, the Blue Team, has earned the right to go to the World Finals in Sharm El Sheikh, Egypt, in the spring of 2011.

According to Coach Ed Corwin, "The contest pits teams of three programmers against each other in a pressure-cooker situation: one computer, nine problems, five hours. It's MacGyver programming at its best – solve the most problems in the shortest total time and advance to the World Finals."

The highest ranked team from the School of Mines, the Blue Team, comprised of Matt DesEnfants (CSc Senior, Clear Lake, SD), Randy Foudray (CSc Senior, Box Elder), and Ethan Robish (CSc Junior, Strandburg, SD), placed third out of the 223 teams from 63 colleges and universities that competed in the region. The remaining teams placed in 5th, 7th, 13th, and 14th places.

"It's pretty amazing to realize that any one of the five teams would have placed in the top ten in the region if no other SDSM&T teams had been entered," stated Coach Ed Corwin. "That is what I call a deep bench."

This year, about 40 students competed locally for the right to represent the School of Mines at the regional contest. In addition to the third place Blue Team, other teams representing the School of Mines at the regional competition included: the fifth place Green Team comprised of Aaron Aichlmayr (CSc Sophomore, Lafayette, CO), Samuel Harrington (CSc Junior, St. Louis, MO), and Michael Slezak (CSc Junior, Katy, Texas); the seventh place Red Team comprised of Christopher Amert (CSc Junior, Rochester, MN), Colton Manville (CSc Junior, Rapid City), and Jordan Ritz (MS RIAS, Mandan, ND); the thirteenth place Silver Team comprised of Kevin Worner (CSc Sophomore, Hancock, MN), Dean Laganiere (CSc Sophomore, Racine, MN), and Trevor Mahoney (CSc Sophomore, Scottsbluff, NE); and the fourteenth place White Team comprised of Garrett Brandt (CSc Senior, Yankton, SD),

Five teams from the School of Mines Josh Collison (CSc/Phys Senior, Sioux cently competed in the North Central Falls, SD), and Ross Hoyer (CSc Junior, region of the ACM Programming Rapid City).

According to Coach Toni Logar, two of the teams had particularly interesting roads to the regional competition. The Green Team is considered the "junior varsity team" and consists of students in lower level classes including one student in the second programming class, one in the third programming class, and one in the fourth programming class. The Green Team took fifth place overall in the regional competition.

The Silver Team was made up of students who were not selected at the local tryouts, and therefore, should not have gone on to the regional competition. However, the students were convinced they had the "right stuff" to be on the programming team and had the tenacity to show up for practice after practice. The Silver Team placed thirteenth overall and finished fourth out of the School of Mines teams and fourth in the state.

"I think it's fair to say that we're optimistic about our team for next year," said Logar. "When students who haven't even finished the basic programming sequence challenge, and nearly beat, teams with graduate students from universities with 50,000 students on their first time in the contest – I think there is good reason to be optimistic about the future."

"Of the fourteen teams that solved six problems or more, two were from the University of Minnesota, one each from the University of Nebraska-Lincoln, Wisconsin-Madison, St. John's, Carleton, Michigan Tech, the University of Manitoba, and the Milwaukee School of Engineering," added Logar. "The remaining five teams were from SDSM&T."

Coaches for the ACM Programming contest teams are Dr. Ed Corwin (professor, Math and Computer Science), Dr. Toni Logar (professor, Math and Computer Science), and Dr. Roger Schrader (instructor, Math and Computer Science).

Alumni or friends who are interested in supporting the ACM Programming Team can send contributions to the SDSM&T Foundation on line at <u>http://foundation.sdsmt.edu</u> or through postal mail to SDSM&T Foundation, 501 East Saint Joseph Street, Rapid City, SD 57701. Please indicate "ACM Programming Team" on your gift.



#3 Blue Team – Ethan Robish, Matthew DesEnfants, Randall Foudray



#5 Green Team – Aaron Aichlmayr, Michael Slezak, Samuel Harrington



#7 Red Team – Colton Manville, Jordan Ritz, Christopher Amert



#13 Silver Team – Dean Laganiere, Trevor Mahoney, Kevin Worner



#14 White Team – Ross Hoyer, Garrett Brandt, Josh Collison

### Students Return to Chile for Fourth Time

Engineers and Scientists Abroad (ESA) is an organization of students at the South Dakota School of Mines and Technology with an interest in studying and conducting service projects abroad. ESA offers students the opportunity to travel the world, gaining cultural experience while promoting the welfare of underdeveloped international communities by supporting and undertaking service projects in the fields of engineering and science to better those communities.

This year, a group of seven students along with one professor and his wife will travel to Vicuña, Chile, over spring break to continue work on the construction of an orphanage. ESA has joined forces with Vocations for Orphans (VFO), an organization that helps orphanages set up vocational training programs and assists in the development of life skills. VFO has completed one building at the orphanage and continues work on two others thanks to an ever-growing group of volunteers like those from the School of Mines. The goal is to finish three dormitories, two classroom buildings, a dining hall, and a shop by 2016. At that time, the vocational school will be open to 16 to 18 year old orphaned boys and will be able to house 80 to 100 teenagers with the opportunity of expansion.

While in Vicuña, the ESA group will have several goals, the first of which is to build a relationship with the Chileans in order to understand their culture and to show their sincere willingness to help. This year, the group will be assisting in pouring the concrete foundation for the orphanage's future multipurpose building.

Several students will also work on individual projects while in Vicuña. One student project will involve designing a multipurpose building that will provide shelter as well as a place to learn and eat. The student will collect the actual requirements of the building and research the availability of materials and the costs associated with them so that the best building can be constructed. After the trip, the student will design the building and send the prints and an estimated cost to Vicuña.

Another senior civil engineering student will be completing his senior design project which will revolve around water supply and sewage treatment. The student will design a water supply system including a sewage or septic treatment system that will increase the quality of life for the inhabitants of this orphanage. While in Vicuña, the student will gather information for the design process by conducting a complete site inspection. This will include surveying current water sources and availability, testing of the soil, and verifying available materials. After the trip, the student will compile the information into a design that will be submitted to the contact in Vicuña as a suggestion for implementation.

Another project, surveying the build site and creating an updated map to improve on the work of previous groups, will be conducted by two ESA members. The two will also survey the path from the build site to the spring supplying the site's water. The water way from the build site to a nearby vineyard will also be surveyed. These surveys will allow for future water projects to be designed as well as allow the planning of future construction. Upon returning to Rapid City, the surveys will be used to create an accurate topographical map of the site which will be supplied to VFO in addition to the final written report.

The last planned project is purePACK product

testing, a senior design project that encompasses a portable unit that purifies water using renewable power generation. The need for healthy and purified drinking water is constantly growing worldwide, and this project is an attempt to aid in this area. A team of four will be field testing their purePACK product in Vicuña in order to gain specific performance results, hands-on training with the locals, and feedback. The team will be using their knowledge of purification systems and renewable power generation to provide a suggestion for future power generation and water purification for the orphanage. If the purePACK unit is received well, it will be donated to those working on the construction of the orphanage so that bottled water does not have to purchased and carried in.

"This will be our fourth trip to Chile, and as a group, Engineers and Scientists Abroad is very grateful for the support we have received that allows us to continue helping at the orphanage," said Bridget McDougall, ESA treasurer. "We look forward to more involvement with students and faculty on campus and with members of the community this coming year, but most importantly, we hope to continue to help the people of Vicuña move forward with the orphanage."

Alumni or friends who are interested in supporting ESA can send contributions to the SDSM&T Foundation on line at <u>http://founda-</u> <u>tion.sdsmt.edu</u> or through postal mail to SDSM&T Foundation, 501 East Saint Joseph Street, Rapid City, SD 57701. Please indicate "ESA" on your gift. For more information, visit <u>http://esa.sdsmt.edu</u>

### School of Mines Students Make Concrete Fly

The Concrete Airplane Team is a new student team that has recently formed on the campus of the South Dakota School of Mines and Technology. According to the group's president, Colt Montgomery (junior, mechanical engineering, Bismarck, North Dakota), the team's goal is "to make concrete fly."

The team got its start when civil engineering professor Dr. M.R. Hansen learned of a concrete airplane senior design project at Embry-Riddle Aeronautical University. Hansen approached Montgomery along with then senior Ken Collins (CE 10) to gauge their interest in doing something similar at the School of Mines. Collins, who had been an integral part of the Concrete Canoe Team, took on the project as his senior design using the same criteria for the plane's construction and engine size that the student at Embry-Riddle used. The structural concept is thin-shell lightweight prestressed concrete, similar to the concrete canoe technology.

Students have quickly become interested in the Concrete Airplane, and the team's first prototype, the *Lumber-wagon*, has been designed with all flexural members constructed of concrete and an engine limit size of .91in<sup>3</sup>. The prototype weighs just 25 pounds.

Although the prototype has been formed, it has

not been tested yet because the engine is not yet in place.

"We are in need of funds to purchase an engine for the prototype," said Montgomery. "Our goals are to have funds available for the engine and to get the *Lumber-wagon* airborne during the early part of the spring 2011 semester."

"We've been working on this prototype for a year, and although it's been full of challenges, we have all learned a lot about working together as a team," he added. "This airplane is the ultimate engineering showcase, and we are excited to show everyone that you can make concrete fly."

Montgomery was sure to add that it took Embry-Riddle students five years before their plane successfully took flight.

Because students who are part of the School of Mines Concrete Airplane Team are pioneers in manufacturing concrete airplanes, there are currently no organized groups, competitions, or events, but Montgomery hopes to change that.

"Once we get our engine and get the *Lumber-wagon* up in the air, we plan to challenge Embry-Riddle to a competition," he said. "After that, we hope to put out an open challenge to students at other colleges and universities nationwide who are interested in competing with concrete airplanes."



The first prototype: the "Lumber-wagon"

The team currently has 11 student members along with many others who are interested in participating. The students represent various disciplines including civil, chemical, industrial, mechanical, and metallurgical engineering. The team's advisor is M.R. Hansen.

Alumni or friends who are interested in supporting the Concrete Airplane Team can send contributions to the SDSM&T Foundation on line at <u>http://foundation.sdsmt.edu</u> or through postal mail to SDSM&T Foundation, 501 East Saint Joseph Street, Rapid City, SD 57701. Please indicate "Concrete Airplane" on gifts.

### Sweet Establishes Scholarship



Perry Sweet

Perry Sweet (CE 83/MS CE 84) recently established a scholarship at the South Dakota School of Mines and Technology. The Perry Sweet Football Scholarship is a non-endowed scholarship that will be awarded to a member of the School of Mines football team.

Perry Sweet grew up in Aberdeen, graduated from Aberdeen Central High School in 1979, and enrolled at the School of Mines where he studied civil engineering. Perry was involved in many groups and activities while on campus including

Delta Sigma Phi fraternity and the Hardrocker football team. After graduating, Perry went to work for International Business Machines (IBM) in Fargo, North Dakota.

In 1992, Perry was promoted by IBM to Chicago, Illinois, where he ran operations for the IBM Healthcare Division. He then ran the IBM Healthcare Business Partner division until he left in 2001. Perry met his wife, Nancy, in Chicago and they have one son, Justin, who is 9.

Perry left IBM in 2001 to work for First Consulting Group as the Vice President of the Midwest Region. He developed and managed client relationships in this region for First Consulting Group through 2005. Perry joined Allscripts in 2006 as the Vice President of Technology, Outsourcing, and Professional Services Sales worldwide. He is responsible for sales, pricing, and scoping for clinical, financial, and technical solutions that are supported by Professional Services, Technology, and Outsourcing.

### Mars Researcher Squyres Awarded 2010 Mines Medal

Steven W. Squyres, Ph.D., was named the 2010 recipient of the School of Mines' prestigious Mines Medal. School of Mines President Robert A. Wharton, Ph.D. established the Mines Medal in 2009 to bring tribute and recognition to a leader in engineering or science. Squyres was presented the award at a dinner and ceremony held in Rapid City in October.

"By paying tribute to outstanding engineers and scientists, we show the students of tomorrow that they also can be leaders and innovators," Wharton said. "Highlighting the significant role these individuals play in our society gives us a chance to emphasize the importance of leadership in areas that have the power to change the world."

Squyres is the Goldwin Smith Professor of Astronomy at Cornell University and the principal investigator for the science payload on NASA's Mars Exploration Rover Project. Squyres successfully conceived, organized, and led the exploration of the planet Mars with two small rovers, *Spirit* and *Opportunity*. He is also a co-investigator on the Mars Express mission and on the Mars Reconnaissance Orbiter's High Resolution Imaging Science Experiment.

His research focuses on the large, solid bodies of the solar system: the terrestrial planets and the satellites of the Jovian planets. His work involves analysis of data from spacecraft and ground-based telescopes as well as geophysical modeling. While much of Squyres' NASA work has centered on Mars, his ground-based research focuses on geophysical modeling of all of the planets – as well as some large moons – in an effort to understand the geological forces at work on these distant planetary bodies. He has also conducted fieldwork in Antarctica, studying the perennially ice-covered

## Feiszli Receives Meritorious Service Award



The South Dakota Music Educators Association (SDMEA) recently honored Dr. James D. Feiszli (director, Music Activities/professor, Humanities) for his 35 years of service to music education.

Feiszli, who hails from Sandusky, Ohio, began his professional music career as a tuba player in a Dixieland jazz group at a local amusement park. He taught public school music for six years and joined the School of Mines in 1983 where he oversees the music program, directs three vocal ensembles, and teaches applied voice and other

Dr. James D. Feiszli

music courses. He is active as a tenor with Dakota Voices, his six-voice vocal ensemble.

Feiszli earned a bachelor of music education degree in voice from Mount Union College, a master of music degree in music history and literature from the University of Akron, and a doctor of musical arts in choral music from Arizona State University.

School of Mines ensembles have been recognized locally, nationally, and world-wide for their excellence, and students and alumni under Feiszli's direction have appeared throughout the United States and Europe at professional music conventions, competitions, the National Cathedral in Washington, D.C., and in concert tours in Germany, Austria, Switzerland, Ireland, and Italy. He has also been a guest conductor, adjudicator, consultant, lecturer, and vocal soloist throughout the United States and Europe.

SDMEA is the state chapter of the National Association for Music Education, one of the world's largest arts education organizations, with a membership of more than 75,000 active, retired, and pre-service music educators. SDMEA activities and resources have been largely responsible for the establishment of music education as a profession, for the promotion and guidance of music study as an integral part of the school curriculum, and for the development of the National Standards for Arts Education.

lakes in the McMurdo Dry Valleys.

Squyres has also participated in a number of planetary spaceflight missions. From 1978 to 1981, he was an associate of the Voyager imaging science team, participating in analysis of imaging data from the encounters with Jupiter and Saturn. He was a radar investigator on the Magellan mission to Venus, a member of the Mars Observer gamma-ray spectrometer flight investigation team, and a co-investigator on the Russian Mars '96 mission.

He has served as the chair of the NASA Space Science Advisory Committee and as a member of the NASA Advisory Council. In addition, Squyres is a member of the imaging team for the Cassini mission to Saturn.

Squyres has written numerous scientific articles in the field of planetary sciences and in 2005 published the popular book *Roving Mars: Spirit, Opportunity, and the Exploration of the Red Planet.* He is also the subject of the Disney IMAX movie Roving Mars.

### Hanks Is Fulbright Scholar

More than 4,600 scholars have benefited from the Australian-American Fulbright Commission exchange program in the last 60 years, and now School of Mines alumnus Timothy Hanks (Chem 81) can count himself in that number.

Hanks, a professor in chemistry at Furman University, South Carolina, will undertake research at the University of Wollongong in New South Wales, Australia, as one of a very select group of Fulbright U.S. Senior Scholars.

During his time in Australia, Hanks will look at furthering the work of his team in the United States at the Intelligent Polymer Research Institute into the development of new materials for bio-medical applications. In particular he will explore materials that have the potential to improve the interface between biological cells and electronic devices.

Hanks has been Chair, NSF Research Experience For Undergraduates Leadership Group; General Chair, Southeast Regional Meeting of the American Chemical Society and undertaken an Endowed Professorship: Henry Keith and Ellen Hard Townes Professor of Chemistry, 2002-2004. He has previously served as a visiting scientist at the Commissariat á l'Energie Atomique, Grenoble, France, and at Clemson University, Clemson, South Carolina.





Carol and John Davies

John (ChemE 71/MS ChemE 72) and Carol Davies recently established a scholarship, the John and Carol Davies Scholarship, at the School of Mines. This endowed scholarship will be awarded to a School of Mines student majoring in chemical engineering, with first preference being given to a student graduating from Hanson High School in Alexandria.

## **Davies Establish Scholarship**

John Davies grew up in Fulton and graduated from Alexandria High School (now called Hanson High School). He was involved in the American Institute of Chemical Engineers, the Engineer (yearbook) staff, Alpha Chi Sigma, and Sigma Tau, and he worked at Montana Dakota Utilities (MDU) as a student engineer for four years. After graduation, he continued working for MDU in Rapid City and Sidney, Montana. In 1974, he started working at The Dow Chemical Company in Midland, Michigan. He worked in hydrocarbons research, manufacturing, production planning, economic evaluation, business analysis and strategic planning, and served on several business teams. He directed Dow's economic planning in the Strategic Planning and Business Analysis group for the last eight years of his career with responsibilities for economic evaluation practices and methodology for

capital projects, mergers and acquisitions, internal business valuation and strategy development, contract valuation, peer review of project analyses, and economic evaluation and business valuation training. John also served in a variety of community activities including serving on his church council in various capacities, Habitat for Humanity projects, school activities while their children were in school, and the valuation of several projects for governmental agencies.

John met Carol Langemach in Michigan, and they were married in 1975. Carol graduated from the University of Missouri – Rolla in 1973 with a degree in chemistry and also worked at Dow. John and Carol have three daughters. Laura received a bachelor's degree in chemical engineering from the University of Missouri – Rolla, an MBA from University of Missouri – Kansas City (UMKC), and is currently attending the UMKC Dental School to become a dentist. Sara received a bachelor's degree in biomedical engineering from Milwaukee School of Engineering and a Doctor of Optometry from the University of Houston. Jenna received a bachelor's degree in biology from Augustana College and is currently attending University of Indiana Dental School to become a dentist.

John and Carol retired in 2006 and relocated to Rapid City where they enjoy bicycling, hiking, and attending Hardrocker basketball and football games and School of Mines band and choir concerts. John volunteers with Habitat for Humanity, and Carol is involved with several quilting groups and genealogy. John served as treasurer SDSM&T of the Alumni Association and is currently serving on the University Public Relations task force.

## Memorial Scholarship Established for Newlin



Terry Newlin

Stephen Newlin (CE 75) recently endowed the Terry Newlin Memorial Scholarship at the School of Mines in memory of his wife,

Terry Newlin, who passed away on February 18, 2010.

The Terry Newlin Memorial Scholarship will honor Terry's willingness to help motivated students overcome adversity and broaden their education. The scholarship will be awarded to sophomores, juniors, or seniors at the School of Mines who come from South Dakota and have a minimum 2.75 grade point average. Preference will be given to students who are involved in extra-curricular activities, and especially to those who have financial need.

Terry grew up in Mobridge, South Dakota. She met and married Steve, her husband of 34 years, while he attended the School of Mines. Terry and Steve went on to raise two sons, Grant, 21, and Scott, 19.

Terry was a graduate of National College in Rapid City and worked for many years in the finance area including being employed as an accountant and controller in the health care industry. Business relocations took Steve and Terry to various locations in the United States and abroad. They lived for a short time in Rapid City and spent four years in the Netherlands prior to moving to Naperville, Illinois, and eventually to the Minneapolis area.

Terry held a deep appreciation for the good fortune granted to her family as a result of hard work, the education provided by the School of Mines, and her upbringing rooted in values. Everyone who knew Terry was struck by her positive attitude and her genuine care, kindness, and compassion for others. Terry was someone who pulled for the underdog and disadvantaged, and she was always ready to assist ambitious young adults to fulfill their potential. She was especially eager to help South Dakota students who lack the financial resources to succeed at the School of Mines.

With this scholarship, students will receive encouragement and support to continue to pursue their degrees at the School of Mines, and Terry's legacy of providing hard working students a helping hand will live on for years to come.

## Scholarship Created in Memory of Zafft



is the hope of those contributing that the scholarship will provide support and encouragement to a varsity football athlete earning his degree from the School of Mines.

Doug Zafft was born December 16, 1971, and raised in Estelline, South Dakota, where he was a standout student and athlete. He was a member of the National Honor Society, a two-time National Scholar Athlete, and was voted homecoming 'Big Chief' by his classmates. On the gridiron, Doug was an all-conference and all-state football player for Estelline High School, and during the summer, he held down the catcher position for the American Legion Baseball Team over a five-year period. Doug loved nature and in his spare time enjoyed deer and pheasant hunting with family and friends. After graduating from Estelline High School in 1990, Doug joined the Hardrocker Football Team as a 5'6", 160-pound freshman cornerback. Although there were bigger and faster players on the field, he never hesitated to put his nose right in there with the big boys. He was always around the ball and never missed a tackle.

During his freshman year, he also joined Delta Sigma Phi fraternity where he eventually served as the chapter's treasurer, taking on the task of ensuring all budgets were met and "tackling" those who were e to pay their house bills. Doug played just one year of football for the Hardrockers because he was diagnosed with cancer the summer after his freshman year. He bravely fought over the next four years, losing his leg to the disease during his sophomore year, missing a semester of school along the way, and eventually succumbing to the illness during his senior year. At the time of his death, he was a senior civil engineering major. Although Doug was never allowed the privilege to finish his schooling, he was very proud to receive his EngineerIn-Training Certificate in December 1994.

Doug was a man of few words, unselfish and private, and was highly regarded by all who knew him. His Hardrocker teammates respected his tenacity and willingness to take on all challenges while his Delta Sigma Phi brothers admired his calm demeanor and intelligence beyond his years.

As he approached the end of his life, Doug continued to be concerned for others, and his wishes were fulfilled even after his death when his prosthesis was donated for the use of another individual in need. Doug's parents (Don and Susan), his wife (Lisa), his sister (Donna), and his brother (Bryon) along with his extended family and many teammates, brothers, and friends have established this endowed scholarship so that Doug will be remembered as a Hardrocker for years and generations to come.

Doug Zafft

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The Doug Zafft Memorial Scholarship Endowment was recently established at the School of Mines to honor the memory of Doug Zafft, a special son, brother, athlete, and friend. Doug's family, classmates, and friends will contribute to this endowed scholarship which will be awarded to a varsity football athlete in good academic standing at the School of Mines. It

## Tim Luchini Scholar-Athlete Award



John, Tim, and Tamara Luchini

The Tim Luchini Scholar-Athlete Award was recently established at the School of Mines by Tim's parents, John and Tamara Luchini. The scholarship will be awarded to a student in good standing who is also a member of the Hardrocker Football Team. John and Tamara created this scholarship in gratitude for the experience and education that Tim gained during his years at the School of Mines.

Tim Luchini grew up in Findlay,

Ohio, among the flat Black Swamp area farmlands of Northwest Ohio. He loved the game of football, playing on organized teams beginning in fifth grade. As a four-year starter for his high school varsity football team, Tim played both offensive and defensive positions, earning league and Northwest Ohio team honors. He also played on basketball, baseball, and soccer teams during high school to stay in condition for football. Recruited by several Ohio colleges, Tim decided to go to the School of Mines because he wanted to be a mechanical engineer AND play football.

Leaving his home in Ohio for a college education in South Dakota "was one of the best decisions I have made," said Tim. "It forced me to meet new friends, focus my interest on engineering, and broaden as a person. I have done and experienced things in South Dakota and the surrounding states that I would have never been able to experience in Ohio."

In the off-seasons in South Dakota, Tim used his Eagle Scout skills to hike, camp, hunt, and fish; he even went on a cattle round-up with friends from the football team.

"My first weeks at the School of Mines were spent studying mechanical engineering in an uncommon setting: on a football field," added Tim. "As a freshman recruited to play on the varsity team, I had to find a balance between the rigors of coursework and athletics. Building bonds with teammates and classmates became crucial to my success, and by the end of my first semester, I had found an equilibrium that allowed me to perform well both on the field and in the classroom."

During the four years of his football experience, Tim's parents drove or flew out for many of the games and found the "local" parents and fans to be exceedingly welcoming and inclusive. All four of Tim's siblings were able to come to games, as did his grandparents and cousins from Michigan. Tim was especially pleased when his high school coach came out for a game and was graciously welcomed by the Mines coaching staff. When they could not attend the games in person, the scattered family and friends tuned in for Tom Rudebusch's radio broadcasts, which brought "far away" game days right into their homes.

The Luchinis feel that Tim's decision to come to the School of Mines for an education and the opportunity to play college football turned out to be a blessing for their entire family, and they would recommend the School of Mines to anyone who wishes to combine serious academics with being part of a growing football tradition.