Hello Students!
Welcome back! We hope you’ve had a restful break. Whether or not you’re ready to jump feet first into the new semester, things are definitely getting underway. Exciting new opportunities are listed in this newsletter, including research experiences and grants, scholarships, job and internship opportunities, as well as more ways to get involved with the student organizations that make our department so vibrant - make the most of your time at SDSM&T!

Thinking about how to take advantage of those summer months?
Here are some tips to help you begin working out the details:
- Have a chat with your favorite professor
- Check your hometown newspapers and let your family members and friends know you’re looking for opportunities
- Consider summer classes if you got some catch-up to do—register now on Webadvisor!
- Start preparing for the spring career fair on February 6th! Here’s a helpful Résumé Writing Guide
- Read on!

Attention 2015 Grads: How does $10,000 sound to you?

RESPEC Undergraduate Research Grant: DUE 3/14/14
One full-time, degree-seeking undergraduate student who will graduate in 2015 will be selected for a $10,000 award plus a summer internship with RESPEC, a company that had its beginnings in Rapid City. Students must submit a research proposal focused on one of the following six topics:
- Alternative and traditional energy (source location and development strategies)
- Water resources (including water quantity/quality and watershed studies)
- Environmental science (including natural resources and sustainability)
- Geology (including groundwater and geophysics)
- Mining engineering
- Rock mechanics

Proposals are to be submitted electronically to Mrs. Jeanette Nilson, Research Affairs at Jeanette.Nilson@sdsmt.edu no later than 4:30 pm on March 14, 2014 and are to include the following:
- One title page
- Up to three pages describing the project and anticipated results
- One budget page (funds may be used only for a student stipend and direct project costs, ie: materials and supplies, and travel)
- One letter of support from the proposed faculty supervisor

Interviews will commence mid-April and the winner will be announced by April 25, 2014. The selected research project will begin in September and must be completed by August 15, 2015. For more information, please visit:
- News Item: RESPEC Commits $250,000 to School of Mines Research Effort
Summer Research Experiences:

Colorado Center for Biorefining & Biofuels (C2B2) Research Experience for Undergraduates
C2B2, a collaborative research center of the University of Colorado Boulder, Colorado State University, Colorado School of Mines, and the U.S. Department of Energy’s National Renewable Energy Laboratory, is now accepting applications for its 10-week summer research opportunity. Funding is available to U.S. citizens, permanent residents, and international students. Participants will receive a $4300 stipend, $1900 housing & food allowance, and $550 travel allowance, and the opportunity to research bioenergy alongside professionals in one of the following research “thrust” areas: Feedstock Engineering, Plant Biotechnology & Crop Science; Biochemical Engineering: Thermochemical Engineering; Process Engineering; Product Engineering or System Assessment & Analysis. All majors are encouraged to apply! For more information and application materials, visit C2B2web.org or click HERE. Applicants are encouraged to call 303-492-7736 or email C2B2@colorado.edu with any questions.

Program Dates: May 27-August 2, 2014
Deadline: Application must be received by 11:59PM MST on February 16, 2014 to be considered.

Cal Poly Global Waste Research Institute Research Experience for Undergraduates
The REU program at Cal Poly engages undergraduates on research supported by the Global Waste Research Institute (gwri.calpoly.edu), an interdisciplinary organization at Cal Poly focused on promoting collaborative and cutting-edge research and educational activities. Ongoing fundamental research at Cal Poly involves waste management, pollution prevention, waste to energy conversion, and beneficial reuse of wastes and byproducts. Ten undergraduate applicants will be invited to participate in this 10-week summer program and will be provided room, board, a $4800 stipend, and up to $500 travel allowance. Students interested in applying to the program should indicate their interest by e-mail as soon as possible to Dr. Gregg Fiegel (gfiegel@calpoly.edu), Professor of Civil and Environmental Engineering at Cal Poly. Dr. Fiegel will send interested persons a formal application package directly. Students who have earned their bachelor’s degree prior to the start of the program are ineligible. Program participants must be U.S. citizens, U.S. nationals, or permanent residents of the United States.

Program Dates: June 17-August 23, 2014
Deadline: The review of applications will begin on March 1, 2014 and will continue until all available research positions are filled.

TIP
Take Advantage of the National Science Foundation’s “REU” Search Tool
To uncover more opportunities to participate in NSF-funded summer undergraduate research programs, Click Here
Internship Opportunities:

NEW: SDDOT - Geotechnical Engineering Summer Intern
The intern will assist the geotechnical engineering activity staff with collecting, compiling, and interpreting data associated with geotechnical investigations and ground monitoring instrumentation throughout the state. Tasks will include using computer software to generate reports and develop databases. Duties will require some overnight travel and physical labor including hiking and lifting objects weighing up to 50 pounds. Applicant must be willing to work a flexible work schedule and outdoors in a variety of weather conditions. Applicant must be a full-time student with preference given to South Dakota residents and students of South Dakota institutions. To apply, visit http://bhr.sd.gov/workforus.aspx, click "Start your career search here!" and search job ID 2406.

Compensation: $9.00/hr - $9.45/hr, depending on qualifications
Location: Pierre, SD
Program Dates: Summer 2014 (May – August)
Application Deadline: February 7, 2014

NEW: SDDOT - Summer Planning Intern
The intern will assist project development staff in the implementation of a new transportation planning program to assist small South Dakota communities (under 5,000 population) with the development of a multimodal community transportation plan, including bike, pedestrian, transit and traditional modes. The position will consist of both office work (including policy research, GIS and computer generated mapping, planning and report generation) and work on site with the community (including site analysis, data gathering and public and stakeholder meetings). Some overnight travel will be required. Applicant must be a full-time student with sophomore standing or above by the end of the spring 2014 semester. Preference will be given to students who have completed their junior year. Intern will have completed coursework in community or transportation planning and multimodal transportation design studies. Preference will be given to students with GIS mapping capabilities, South Dakota residents, and students of South Dakota institutions.
To apply, visit http://bhr.sd.gov/workforus.aspx, click “Start your career search here!” and search job ID 2473.

Compensation: $9.00/hr - $9.45/hr, depending on qualifications
Location: Pierre, SD
Program Dates: Summer 2014 (May – August)
Application Deadline: February 7, 2014

Goldmine Has Internships, Too!
Check out GoldMine for a list of internships available to Mines students. Hint: Click jobs search, select “advanced search” then specify your major to get a list of relevant opportunities.
On Goldmine as of 1/17/2014:

- Masaba Mining Equipment - 2014 Summer Design Engineer Internship – Job ID #4833
- Poet, LLC – Summer 2014 Internships at Poet – Job ID #4875
- City of Urbandale, IA – Civil Engineering Internship – Job ID #4074
- Coeur Mining, Inc. – Coeur Mining Summer Internship 2014 – Job ID #5084
- Midco Connections – Construction Management Intern – Job ID #5035
- City of Sioux Falls, SD – Engineering Intern Job Opportunity – Job ID #5055
Job Opportunities:

**NEW: Custer National Forest – Field Geologist/Reclamation Specialist**

The GeoCorps participant’s primary duties (approximately 45% of time): will be to inventory and assess abandoned uranium mines and mineral exploration impacts. Historic mining in the South Dakota portion of the Custer National Forest took place in the 1950-60s to extract uranium from the lignite coal beds. This inventory/assessment will include taking GPS locations, photos, and mapping the site, taking radiation readings, and writing a short report on the site with recommendations and planning for future reclamation needs. The secondary focus of the position (35%) will be to continue ongoing photo point monitoring of reclaimed and un-reclaimed abandoned uranium mines. This will be the second year of this documented effort. This consists of taking photographs from mapped pre-established locations. Other duties (20%) may periodically include: assisting the District minerals staff and the Riley Pass CERCLA site on-scene coordinator on day-to-day minerals/geology project work. This could include inspecting ongoing reclamation work, using a portable XRF machine to analyze soil profiles for contamination, collecting soil and water samples, reviewing contractor design work and submittals, and monitoring past reclamation efforts. Duties may also include coordinating and assisting at paleontological dig sites on the District. This position is offered through the Geological Society of America’s GeoCorps America Program in partnership with the U.S. Forest Service.

**Compensation:** $11.75/hr – $16.28/hr, depending on GS level

**Location:** Camp Crook, SD; North Hill Caves, SD

**Position Duration:** May 25 – August 15, 2014

**Application Deadline:** February 18, 2014 at noon, MST

**NEW: Ecosystems Group of the Arapaho-Roosevelt National Forests – Technician Positions**

The Ecosystems Group of the Arapaho-Roosevelt National Forests seeks to fill seasonal tech positions (biological science technician or hydrologic technician). The positions will comprise an interdisciplinary fisheries-watershed field crew. Work will focus on riparian condition surveys, resource inventories for future land management projects related to insect and disease outbreaks in the forest, fish monitoring surveys, and field investigations for watershed restoration projects. The crew will perform activities related to upland watershed health conditions, identify riparian protection areas, characterize aquatic habitats, wetland delineation, and estimate size and health of local fish populations. Candidates with experience performing fish surveys, habitat assessments, riparian plant identification, stream or watershed surveys, GPS, and data entry are preferred, but on-the-job training is possible. Positions require strenuous field work during all types of weather conditions. Some assignments will require camping in remote locations, such as any work occurring in Wilderness Areas. Successful candidates also will have opportunities for training and gain substantial on-the-job experience. Interested parties should contact Chris Carroll by email at ChristopherCarroll@fs.fed.us or 970-295-6637 by Mar. 14, 2014 for further information.

**Compensation:** $14.39/hr – $16.10/hr, depending on education and experience related to GS level

**Location:** Fort Collins, CO

**Position Duration:** Early May – September 30, 2014 (or longer)

**Application Deadline:** March 17, 2014; Contact by March 14, 2014
Job Opportunities, Cont.:  

**NEW: Test Lab, Inc. - Construction Materials Engineer/Field Engineer**

A position is available immediately at Test Lab, Inc. Duties include preparation of construction materials testing proposals, oversight of technicians and field engineers for testing of construction materials, client maintenance and business development. Construction experience/background will be a consideration. Must have a 4-year degree in engineering, be able to work in and around construction sites, and have an insurable driving record. Contact us in Tampa, FL, regarding our current employment opportunities, or call 813-872-7821. Please address inquiries to Jeanne A. Berg, P.E., Vice President and Director of Engineering. You may also download this application, fill it out and fax it to at 813-872-1876 or email to HR@testlabinc.net.

**Compensation:** $55k/year, annual bonus

**Location:** Tampa, FL

**NEW: Medicine Bow-Routt National Forests - Hydro Crewmembers for Forest Service**

The Medicine Bow-Routt National Forests and Thunder Basin National Grassland (www.fs.usda.gov/mbr) are looking for summer employees interested in watershed management. Job duties include a diverse range of surveys, inventory, monitoring, and restoration work, and include both field and office work. Work requires the ability to hike, wade, lift, carry and use equipment in rugged terrain and in mountain weather while collecting physical and biological data. The ability to work safely and work well in a team environment is necessary. Prior watershed management experience is beneficial, but not required. A valid driver’s license is required, and overnight travel to different locations on the Forest may also be required. Crews may periodically camp out overnight during the week, depending on work location. To apply, visit: www.usajobs.gov between January and March 2014 (be sure to upload your transcript!) or contact Dave Gloss, hydrologist at dgloss@fs.fed.us with questions or for additional information.

**Compensation:** $11.75/hr – $16.28/hr, depending on GS level

**Location:** Steamboat Springs, CO; Saratoga, WY

**Position Duration:** Early May – Late September, 2014

**NEW: Black Hills National Forest – Various Summer/Seasonal Positions**

The Black Hills National Forest may be advertising and filling several temporary positions. To find out more, visit: http://www.fs.usda.gov/detail/blackhills/home/?cid=stelprdb5441559. Available positions include hydrologic technician, biological science technician, engineering aid, and more. Positions will also be posted and searchable on the USA Jobs website, www.usajobs.gov, when they open.

**Compensation:** Varies, depending on education and experience related to GS level

**Location:** Bearlodge Ranger District – Sundance, WY; Northern Hills Ranger District – Spearfish, SD; Mystic Ranger District – Rapid City, SD and Hill City, SD; Hell Canyon Ranger District – Custer, SD and Newcastle, WY; Supervisor’s Office – Custer, SD

**Position Duration:** Early May – Late September, 2014
Scholarships:

**NASA Langley Aerospace Research Student Scholarship Program (LARSS):** DUE 2/1/2014

LARSS is a paid, year-round research internship program with 3 sessions - fall and spring (15 weeks) and summer (10 weeks). It is open to U.S. citizens who are full-time students in community college, undergraduate and graduate students, and a few select high school students. For 26 years, the LARSS program has helped to preserve U.S. leadership in engineering and science by providing exceptional students the opportunity to work with Langley researchers on some of the Nation’s most important, difficult, and challenging problems that require multi-disciplinary and collaborative solutions.

Eligibility is as follows:
- U.S. Citizen
- Full-time student status
- Classification as a rising junior, senior, or graduate student by the start of the summer session
- Cumulative 3.0 GPA on a 4.0 scale

To learn more, watch: [http://www.youtube.com/watch?feature=player_embedded&v=UNQzoKKreSE](http://www.youtube.com/watch?feature=player_embedded&v=UNQzoKKreSE)
To apply, visit: [http://nia-cms.nianet.org/LARSS-2012/Application.aspx](http://nia-cms.nianet.org/LARSS-2012/Application.aspx)

**NEW: SDES/Black Hills Chapter Bill Craig Scholarship:** DUE 2/14/2014

One $2000 scholarship will be awarded to a returning SDSM&T engineering student (graduate or undergraduate) who meets the following requirements:
- U.S. Citizen
- 2.5 GPA Minimum
- Active in Engineering Societies/Organizations

Preference will be given to NSPE members, but all who qualify are encouraged to apply. Application information is available at [sdes.org](http://sdes.org). Please email Steve Bareis with any questions at Steve.Bareis@respec.com.

**NEW: NAE “Engineering for You” Video Contest:** DUE 3/31/2014

In celebration of its upcoming 50th anniversary, the National Academy of Engineering is launching Engineering for You (E4U), a video contest to show the impact that engineering has or will have on society. NAE is offering a $25,000 prize to the most inspiring 1-2 minute video focused anywhere between 1964 and 2064. The contest will run until March 31, 2014. For more information, visit [www.e4uvideocontest.org](http://www.e4uvideocontest.org) or email E4Uvideocontest@nae.edu.

**American Council of Engineering Companies (ACEC) Scholarship Program:** DUE 3/14/14

*General Scholarships:* Students must be entering their junior, senior, fifth, or master’s degree year in the fall of 2014 to qualify for the general scholarships. In addition, a student must be a U.S. citizen pursuing a bachelor’s or master’s degree in engineering or in an accredited land-surveying program to qualify. Five general scholarships will be awarded.

*Specialty Scholarships:* One specialty scholarship will be awarded to a student pursuing a master’s degree in structural engineering who is enrolled for fall 2014. Students who qualify for the specialty scholarship will also be eligible for all general scholarships.

Students’ interest and commitment to the business and management of the profession are important. Students are encouraged to reflect their interest and commitment throughout their applications.

Awards vary from $3000 to $10,000. All applications will be submitted through ACEC of South Dakota. For further information and application materials, visit: [http://www.acec.org/getinvolved/scholarships.cfm](http://www.acec.org/getinvolved/scholarships.cfm)
Student Organization Updates:

Update from ASCE:
Welcome back, everyone. Spring semester has begun so you can expect some serious **Ultimate Frisbee happening on Sundays at 2:00 PM in the King Center.** We’d also like to let you know that the spring career fair is around the corner, so if you’d like some help with résumés, we invite you to ask some CEE/ASCE upperclassmen to take a look. Many of them have successfully completed internships and co-ops and some have already secured jobs, so they oughta have some great tips for you. Seek them out in the Bill Coyle lounge.

Our first meeting of the semester was held on January 15. Here are some highlights:

→ Ben Wolf shared some details about his trip to Nebraska with admissions. He and a couple fellow ASCE members conducted engineering activities with high school and grade school students and brought the bridge along, too! It was a great success and our chapter hopes that we can send members along on more of these admissions trips. If you’re interested in showing these kids what engineering is all about, contact Ben.Wolf@mines.sdsmt.edu to learn more (we hear he has a penchant for editing résumés, too!).

→ New officer Cody Schellinger also shared a little bit about his trip to St. Louis. Starting this year, new officers have the opportunity to get together with officers from student chapters around the county to learn more about ASCE. Next year’s conference will be held in Texas—keep in mind this is just another perk to being an officer! Cody will share more about what he learned at the next meeting.

→ We discussed our plans for the following events. Some of these are still in the works, so keep checking your email and MinesLink for details as they come! If you’d like to get in the loop, email ASCE@mines.sdsmt.edu.

**January 25: Ice Fishing at Sheridan Lake**
We’ll be leaving from the Surbeck Fireplace at 10:00 AM. Email for directions if you’d rather meet us there.

**January 29: Next Meeting**
As usual, we’ll be meeting at 4:00 PM in CB204W. If you haven’t decided whether you’re going to regionals, please do and sign up before this meeting. See you there!

**February 13: Bierschbach Black Jack Dealing**
Learn how to deal black jack, network, and have some fun at this annual event. Details forthcoming.

**February 22: Stock Show Concessions**
Help us fundraise by selling concessions. Details forthcoming.

**February 22: Dodge Ball Tournament**
ASCE will be sponsoring an open dodge ball tournament competition, and we will need help spreading the word. Contact Ben Wolf at Ben.Wolf@mines.sdsmt.edu to volunteer your help.

**April 3-5: Regional Competition (Let us know if you’re going by February 1)**
Email or stop by the office in the Bill Coyle lounge to sign up if you haven’t already. We hope you will!
Student Organization Updates, Cont.:

Note from Concrete Canoe Captains Kyle & Logon:
Welcome back, guys! After a bit of a delay, we just got some more of the 3M beads and by the time this newsletter goes out, we’ll hopefully have our aggregates ready to go. That means we’ll be ready for a pour by the end of the month, so keep your eyes on your inbox for a date. We also received the mold, which came in six blocks so we’ve got a lot of sanding and smoothing out to do. What else have we got on our plates this month? The mix design! It’s got to shed a few pounds, so in the next month we’ll definitely be busy. If you’re not involved yet, we’ve got stuff for you to do. Start by coming by this Sunday to help us fix the Tippie Hippie, last year’s canoe. We’ll be meeting after ASCE ultimate frisbee (around 3pm). See you there!

- Wanna get involved? Contact Kyle.Carey@mines.sdsmt.edu or Logon.Vogt@mines.sdsmt.edu to find out more!

Note from Steel Bridge Captains Kirk & Nick:
It’s a new semester and we’re happy to report we just received the high strength Swedish steel we were looking for. It’s in the bridge area so feel free to stop by and take a look. Other than that, we’re happy to report that the design is pretty much done! We’ve do have a couple of little connection details to work out left, but we’ll occupy ourselves with that while we’re working with to TrueNorth steel to procure a few things that we haven’t gotten in yet. We’ll be doing a lot of work in the shop soon, so if you’d like to work in the shop and haven’t taken safety training, we’ll be doing a three-session training on Wednesdays and Fridays starting next week on Wednesday, January 22. If you want to get on that list, just get in touch with Nick or Kirk. And remember: if you’re not able to make the training, that’s okay—it’s definitely not crucial that you be in the shop working, since there’s a lot to do in the bridge area, too!
Finally, this year’s bridge reunion will be on April 26 (time forthcoming). There will be alumni with all kinds of steel bridge team lore from days past, so it is sure to be a good time.

- Wanna get involved? Contact Nicholas.Claggett@mines.sdsmt.edu or Kirk.Ehlke@mines.sdsmt.edu to find out more!

That’s all folks!