Hello Students!
The following newsletter contains important department updates, notes, and information: please be sure to read carefully and ask questions as they arise. Just a reminder: do not forget to register for Fall 2015 classes. WebAdvisor will be unavailable February 13- March 22. After March 22 you can register based on your registration time. We encourage you to contact your advisor with any questions or concerns.

Career Fair will be February 10, 2015! Be prepared and research the companies beforehand. You can find a list of companies that will be in attendance at this Career Fair on GoldMine. Make sure your resume is up to date. The Career Center is a great place to learn how to create a top-notch resume if you need some assistance.

CEE Seminar Series:
- Come meet the first faculty candidate for the structures position on Wednesday, February 25, 2015 at 11 am in CM 310. More details to follow.
- Everyone is welcome to attend this and future events. Details and a schedule are posted here:

Curricular Changes & Notes:
- Flowcharts for catalog years 2012 and beyond are available here. Questions? See your academic advisor. Can’t find your advisor? Contact Professor Lois Arneson-Meyer: lois.arneson-meyer@sdsmt.edu.
- BSCE curricular changes affecting all students for 2014-15 include the following:
  - CEE 357 has been replaced by CEE 456 as one of the ‘pick 3 of 4’ junior-level electives for students following the CE curriculum.
  - There is a NEW Petroleum Systems minor available. This interdisciplinary minor is available to any student on campus interested in expanding their portfolio of coursework to include additional content relevant to the energy sector. Science and engineering majors may pursue a Minor in Petroleum Systems by completing eighteen (18) credit hours of courses. A minimum of 6 credits must be from courses outside of those that are required or elective within a chosen major. Check out this great way to increase your marketability working in the energy sector when you graduate:

More Information on the FE Exam:
This newsletter includes important information regarding the Fundamentals of Engineering (FE) Examination. The CEE department strongly encourages you take this exam as soon as you are eligible, as it is the first step toward professional licensure. Passing the FE exam is an important milestone that will increase your career opportunities! Questions? Contact Dr. Gribb: molly.gribb@sdsmt.edu.
How to Sign Up for the FE Exam

Who is eligible to sign up for the Fundamentals of Engineering (FE) Exam?
Seniors who are within two semesters of graduating may apply for the FE exam, which is the national examination from the National Council of Examiners for Engineering and Surveying (NCEES).

Do I have to take the FE exam?
Please note that the CEE department does not require students to take the FE exam to graduate, but don’t limit your opportunities by neglecting to take this exam! It becomes significantly more difficult to pass this exam after you graduate. The CEE department strongly encourages you take this exam as soon as you are eligible, as it is the first step toward professional licensure. Passing the FE exam is an important milestone that will increase your career opportunities. Take the first step toward professional licensure - apply for the Fundamentals of Engineering (FE) Examination.

When and where is the exam administered?
The FE exam is now administered via computer-based testing (CBT) during four testing windows throughout the year: January–February, April–May, July–August, and October–November.

Signing Up:
1. Create an account with the South Dakota Board of Technical Professions and apply to take the FE exam. This needs to be done first because NCEES will check to make sure you have approval from the board before allowing you to schedule the exam: https://apps.sd.gov/LD17BTP/login.aspx. You must do this first or experience significant delays in gaining approval.

2. Create an account on the NCEES website and pay for the FE Exam while waiting for approval from the South Dakota Board of Technical Professions. The NCEES login page is here: https://account.ncees.org/login. Once NCEES gets approval from the South Dakota Board, you will receive an email to schedule your exam. The exam periods are: October-November; January-February; April-May, and July-August.

3. Direct questions about the testing center at SDSM&T to Tammy Moore. Contact Tammy Moore via email: tamara.moore@sdsmt.edu or call 605-394-2486. The testing center is located in the basement of the library.

4. Access review materials at NCEES.org
   - FE Exam Subjects - Civil Engineering:
   - FE Exam Subjects - Environmental Engineering:
   - FE Reference Guide:
   - FE Practice Exams ($50): Highly recommended! This is the best way to experience the test ahead of time.
     - http://ncees.org/exams/study-materials/

Student News:

ASCE Student Chapter Update: Next Meeting Wednesday, February 11
ASCE’s next meeting will take place on Wednesday, February 11 in CB 204W at 4 pm. Our chapter will welcome a guest speaker from the Navy.

Current Project: Design and build flowerbeds for the City of Rapid City Education Center.

Concrete Canoe and Steel Bridge: ASCE is busy working on concrete canoe to compete at the Rocky Mountain Regional Conference in Albuquerque, New Mexico April 9-11th. The concrete canoe team is preparing their canoe, Unearthed, based off of the
famous t-rex, found in Faith South Dakota. The tentative Pour Day for this year’s canoe is February 21st. Steel Bridge has started fabrication for this year! Stop by the steel bridge area and concrete canoe lab to help with this year’s projects!

ASCE’s 2nd Annual Dodgeball Tournament is Saturday February 28, 2015. This event will be held at the King Center. It is open to ages K-Adult. If interested in registering for a team or being a sponsor please contact Cody Schellinger at cody.schellinger@mines.sdsmt.edu.

Lastly, don’t forget to join us for Game Night on February 13 at 7pm in the Neumann Center! We will playing games and video games all night with snacks. Questions? Contact us at ASCE@mines.sdsmt.edu or stop by our office in the Bill Coyle Student Center on the second floor of the Civil-Mechanical building!

Students Bring Nature into North Middle School
Thanks to the American Society of Civil Engineers (ACSE) eighth graders at North Middle School were able to learn about water erosion firsthand. Four SD Mines students designed and built an 8-foot-by-4-foot stream table with two water sources and a circulating pump to give one science class a 3D representation of how an earth system works. Cody Schellinger, an ASCE officer, was happy to fuel an interest in science, technology, engineering and math. “We were excited about building this table at North Middle School. We offered our lab and tools and time to help them because I feel that getting them interested in science and engineering at an early age sparks creativity and interest,” Schellinger said.

Faculty News:
Congratulations to Dr. Gadhamshetty!
National Science Foundation Honors Dr. Gadhamshetty with CAREER Award. The National Science Foundation (NSF) has awarded South Dakota School of Mines & Technology Assistant Professor Venkataramana Gadhamshetty, Ph.D., P.E., with the prestigious CAREER award that carries a $500,000 research grant.

The award will fund Gadhamshetty’s research over the next five years that could pave the way for the next generation of minimally invasive, corrosion-resistant coatings for infrastructure. The annual cost of microbial corrosion on infrastructure is estimated to reach nearly $1 billion in the United States alone.

The Faculty Early Career Development (CAREER) Program offers the NFS’s most prestigious awards to support junior faculty who exemplify the role of teacher-scholars through outstanding research, excellent education and the integration of education and research.

Gadhamshetty joined SD Mines’ Department of Civil & Environmental Engineering faculty last fall. He previously trained as an Excellence in Civil and Engineering Education Fellow with the American Society of Civil Engineers. He also received the Oakridge Institute of Science & Education Fellowship to conduct research at the Air Force Research Laboratory. He has previously taught at Florida Gulf Coast University and Rensselaer Polytechnic Institute.

Department News:
Concrete Conference
A Concrete Conference will be held on March 6, 2015 at the South Dakota School of Mines and Technology in the Surbeck Center Ballroom. Some of the talks will include; Concrete for the Panama Canal Expansion, Self-Healing Concrete and Concrete in Mongolia.

Registration Fee: Advance payment is $145 (Retirees and Students are $30). This fee includes refreshments and lunch.
Continuing Education: Each participant attending ( Entire Day ) will receive a certificate of 7PDH’s or 0.7 CEU
Information: For further information contact SDSM&T Civil Engineering Department at (605)-394-2439 or M.R. Hansen at mr.hansen@sdsmt.edu

Jobs, Internships, Funding & Scholarships:

Internships & Jobs Posted on Goldmine

GoldMine has internship and job postings. Don’t know how to use Goldmine? Once logged in, click the “job search” tab, then try selecting “advanced search” to enter your major and degree-level and other specifications. Use the “sort by” dropdown menu to get a personalized list of opportunities. Good luck!

Internship Opportunity with HDR

HDR is offering an internship to an undergraduate student who has an interest in structural engineering and is familiar with AutoCAD. Capability to use AutoCAD and Microstation is preferred. HDR will be at the Career Fair on February 9, 2015. If you have any questions please contact Dr. Shaobo Huang (Shaobo.Huang@sdsmt.edu).

Petroleum Minor Scholarship Opportunities

- Frank and Marilyn Richardson Scholarship: $10K per year for an outstanding student enrolled in the petroleum systems minor. The scholarship is available to students enrolled in any major on campus.
- Jeff and Johanna Hohle Scholarship: Provides funds to help offset petroleum field camp fees or to provide other scholarship support for SDSM&T students enrolled in the petroleum systems minor. The scholarship is available to students enrolled in any major on campus.
- D. Sherwin Artus Petroleum Systems Scholarship: Provides funds for a merit scholarship for SDSM&T students enrolled in the petroleum systems minor. The scholarships are available to students enrolled in any major on campus.
- Halliburton Scholarship: Provides funds to help offset petroleum field camp fees for SDSM&T students enrolled in the petroleum systems minor. The scholarships are available to students enrolled in any major on campus.
- Larry and Linda Pearson Scholarship: Provides funds to support scholarships for students majoring in mechanical engineering and electing the petroleum systems minor.

Contact Dr. Laurie Anderson for more information: Laurie.Anderson@sdsmt.edu.

Civil Engineering Internship Opportunity

The city of Urbandale, IA is accepting applications for a summer internship opportunity for college students studying civil or construction engineering. Internship is from mid-May through mid-August 2015. There are four openings available. Apply online at http://www.urbandale.org

CIC 2015 Scholarship Program

This year, the Construction Industry Center has opened its scholarship program to include all eligible students, regardless of their field of study. Up to ten (10) awards of $500.00 each may be given to individuals who meet the eligibility requirements as listed below. Additionally, one (1) $1,000.00 award may be presented to an individual who is selected as the essay award winner. Scholarships will be limited to one per person per award winner. The eligible individuals will be judged on the basis of scholastic achievement, community service, school and non-school activities and their answers to the questions on the application form. The judging will be done impartially without basis of religion, race, gender or age. Deadline for applications is March 31, 2015. Award winners will be notified by May 1. Winners will be presented with a certificate, which will be redeemable after August 1 by providing C.I.C. with school registration confirmation. There will be a limit of four (4) scholarships awarded to an individual. Applications are available online at the CIC website: http://www.constructionindustrycenter.com/public/downloads/scholarship_application.pdf

APWA-MN Scholarships

The American Public Works Association-MN Chapter is offering five scholarships for the 2015-2016 school year. One for $1,765. Four for $1,250. The deadline for applications is Friday, June 12, 2015. Student must be residents of Minnesota.
and in their 3rd or 4th year of their program to be eligible. The application and submission details can be found at file:///C:/Users/7181709/Downloads/2015-2016%20APWA-MN%20College%20Scholarship%20Application%20Form.pdf

SDES/Black Hills Chapter is Offering Bill Craig Scholarship
South Dakota Engineering society is currently accepting applications for the $2,000 Bill Craig Scholarship (One scholarship to be awarded).

Qualifications:
- Returning SDSM&T engineering student (graduate & undergraduate) for Fall 2015
- Grade Point Average above 2.5
- Active in Engineering Societies / Organizations
- Previous Bill Craig Scholarship winners are not eligible
- US Citizen

Application Process:
Please provide written responses to the six “bulleted” items below. Submit your responses with two letters of recommendation by the February 13, 2015 deadline. Your letters of recommendation should be from someone not related to you – we suggest one be from a professor or faculty advisor of an engineering society/organization in which you are an active participant. The SDES Scholarship Committee will review the applications and notify the selected individual during Engineers’ Week (starting February 16th). The selected recipient and guest will be invited to the SDES Black Hills Chapter’s E-Week Luncheon where the scholarship award winner will be announced. The $2,000 scholarship will be applied to the student’s fall 2015 tuition fees.

Application:
- Full name, address, e-mail address, telephone number(s) where you can be contacted.
- List your engineering discipline, class standing, and current GPA.
- List the engineering societies and other organizations you belong to including any extracurricular activities and/or clubs. Briefly describe your role in any engineering projects and activities those organizations have undertaken. Also indicate if you are an officer or serve on committees of those organizations.
- Briefly tell us about yourself – your interests, hobbies, other activities (other than those listed above), and any volunteer or community service programs in which you have participated. You may provide information on your background, work experience, and how you decided to pursue engineering as a career.
- Briefly tell us about your plans and goals after graduation.
- In an essay of 250 words or less, tell us what you consider to be the role of engineering societies, and how they may play a part of your career development.

Finally, sign your application. Your application with the two (2) recommendations must be received by 3:00 p.m., Friday, February 13, 2015.

MAIL: OR HAND DELIVER to SDES Office:
Stephen Bareis, PE
RE/SPEC Inc.
213 N. Berry Pine Road
Rapid City, SD 57702
381-0387; steve.bareis@respec.com
Ms. Gail Boddicker, Executive Director
SDES Office – CB 103, SDSM&T
394-6674

RESPEC Undergraduate Research Grant
$10,000 Award and Internship for full-time, degree seeking students at the South Dakota School of Mines and Technology

Interested students who are finishing their junior year of studies must submit a research proposal to the RESPEC Research Grant Committee. Two or three short-listed candidates will be interviewed, and each candidate must make a short presentation. A final
report and presentation will be required at the project’s conclusion. Students planning to attend graduate school at the SDSM&T will be given preference. Proposals are DUE MARCH 16, 2015. The grant will be awarded April 30, 2015. The project will commence September 1, 2015, and must conclude by August 15, 2016. The grant may be used for a monthly stipend and any direct costs related to the project, such as travel. The successful awardee will be offered an internship at RESPEC during the summer that follows his or her senior year.

RESPEC Research Grant Committee:

- Dr. Jan Puszynski, SDSM&T Research Affairs (Chair)
- Mr. Mike Selzer, SDSM&T Foundation (Ex-Officio)
- Dr. Molly Gribb, SDSM&T Civil & Environmental Engineering
- Dr. Bill Roggenthen, SDSM&T Research Affairs
- Ms. Crystal Hocking and Mr. Cory Foreman, RESPEC

Research Areas:

- 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

Submission Rules:

- Interested students must complete a questionnaire* covering their proposed research and academic interests. Answers to the questionnaire must be typed in 12-point, Times New Roman font with 1-inch margins. The questionnaire is provided along with this announcement or can be requested from the Research Office. A letter of support from a full-time SDSM&T faculty member must be attached. Submit the entire proposal electronically to Mrs. Jeanette Nilson (Jeanette.Nilson@sdsmt.edu) in the Vice President for Research Office no later than 4:30 PM on Monday, March 16, 2015.

* Questionnaire format for RESPEC undergraduate research award for 2015 proposal

1. Describe the research question to be addressed.
2. Describe the experimental plan to be followed:
   a. Describe the equipment/models to be used.
   b. What experiments/simulations will be run?
   c. How will the results be analyzed?
3. What are the expected results?
4. Describe the practical application of the research. How does the practical application of the research benefit society/industry (ex: financial, environmental, etc.)?
5. List the anticipated costs associate with your project:
   a. Student researcher pay: $14/hr, 10 hrs/wk during the school year, estimated hours up to 30 hrs/wk during the summer, September 2015- May 2016
   b. Supplies (list):
   c. Equipment (list):
   d. Travel (describe purpose, location):
6. How did you become interested in this research focus?
7. Describe your previous undergraduate research experience (if applicable).
8. When will you graduate with your BS degree?
9. What are your plans for graduate school and your career goals?
10. General statement regarding personal interests and/or other pertinent information from the student submitting the grant proposal.