Hello Students!

The following newsletter contains important department updates, notes, and information: please be sure to read carefully and ask questions as they arise. We encourage you to contact your advisor or Professor Lois Arneson-Meyer with any questions or concerns related to curriculum and course planning: lois.arneson-meyer@sdsmt.edu. You may also reach out to our department head, Dr. Gribb, at molly.gribb@mines.edu. Finally, be sure to take advantage of our department community! Helpful upperclassmen and graduate students can usually be found studying or hanging out in the Bill Coyle Student Center on the second floor of the Civil-Mechanical building. The Bill Coyle Student Center is also home to the ASCE student chapter office. Don’t be shy: drop by if you’re looking for a good place to study or to ask about getting involved with our department’s ASCE student chapter!

CEE Seminar Series:

- Seminars are usually held every other Wednesday at 4:00 PM in CB 204W.
- The next seminar will be on January 28th, and Dr. Stone will be presenting his research on uranium mining.
- Everyone is welcome to attend this and future events. Details and a schedule are posted here:
  ✓ http://www.sdsmt.edu/Academics/Departments/Civil-and-Environmental-Engineering/Activities-and-Organizations/Seminar-Series/

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.
- Looking for online department approved electives? The University of Wyoming offers land surveying classes and a certificate program via distance methods. CEE students may take any of their 3000 or 4000-level courses as department approved electives. Information about courses, registration and tuition available here: http://www.uwyo.edu/civil/landsurvey/

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- CEE 357 has been replaced by CEE 456 as one of the ‘pick 3 of 4’ junior-level electives for students following the CE curriculum.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:
  ✓ http://ecatalog.sdsmt.edu/preview_program.php?catoid=13&poid=1099&returnto=2304

More Information on the FE Exam Included:

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](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](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/](http://ncees.org/exams/study-materials/)

Student News:

**ASCE Student Chapter Update: Next Meeting TOMORROW Wednesday, January 21**
Prizes and Pizza! **CB 204W at 4 pm.** 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!
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!

U.S. Army Corps of Engineers in Rapid City Looking for Student Help
The U.S. Army Corps of Engineers in Rapid City is searching for student help this winter/spring. The position involves data input for large construction project modifications with the possibility of gaining project experience if time allows. Professional and organized students who are available 10-16+ hours a week during business hours (7:00AM – 4:30PM M-F) are encouraged to send a one-page resume to the following email address: rebecca.m.vandine@usace.army.mil.

Summer Research Program: Sustainability of Civil Infrastructure in Rural Environments
Rural areas are fundamental to human well-being. Within the United States, rural areas provide unique resources such as the infrastructure for food and bioenergy production as well as the transportation infrastructure from inland urban centers to ports. Despite this, little attention is paid to the unique challenges and opportunities these areas face with respect to building and maintaining civil infrastructure. In this ten-week summer research program, students will work with faculty and graduate students in the Department of Civil Engineering at the University of Nebraska-Lincoln to improve our understanding of how best to address the challenges facing rural environments. Through collaboration with industry partners, students will also be given opportunities to learn how infrastructure challenges are currently.

For more information:
- Contact the program coordinator:
  - Shannon BarteltHunt, Associate Professor, Department of Civil Engineering,
  - 402-554-3868, sbartelt2@unl.edu
- OR
  - Visit: www.unl.edu/summerprogram/civil

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

Houston Engineering Inc. Job Openings Posted to Web
Houston Engineering Inc. has recently posted several job openings including positions in Minnesota’s Maple Grove office are encouraged to consider applying at: http://houstoneng.applicantpro.com/jobs/ and to contact Garrett Monson with questions at: gmonson@houstoneng.com

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 year 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 also available online at the CIC website: http://www.constructionindustrycenter.com/public/downloads/scholarship_application.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

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.