Civil and Environmental Engineering Student Newsletter

Student Announcements

Congratulations to Graduating Students!
The CEE Department would like to congratulate the graduating seniors and graduate students who will participate in spring commencement on May 4, 2013. The 26 civil engineering undergraduate students who have fulfilled their degree requirements are:

- Seth Adams
- Waseem Baabdullah
- Majid Baali
- Steven Barnett
- Cole Bedford
- Joseph Bender
- Chad Cass

- James Dean
- Richard Evertt
- Zachary Grapentine
- Melissa Guthmiller
- Matthew Henderson
- Shane Herrod
- Jakub Hladysz

- Austin Hoellein
- Ryan Houdyshell
- Thomas Jones, III
- Trent Jungwirth
- Ashwin Karunaratna
- Amanda Mrnak
- Kaleb Nielsen-Sheffield

- Oliver Paap
- Timothy Pyle
- Brian Ruppelt
- Brandon Soulek
- Kyle Zorz

The six environmental engineering undergraduate students who have fulfilled their degree requirements are:

- Jonathon Fleck
- Tyler Hengen
- Michelle Kelly
- John Ostheimer
- Emily Squillace
- Ryan Truax

The five graduating civil engineering M.S. students are:

- Nicholas Marnach
- Ivar Melby
- Anzhelika Muraveva
- Molly Pruess
- Robert Prann

The four graduating construction management M.S. students are:

- Joshua Anderson
- David Dailey
- Kimberly Kays
- Aaron Olsen

In addition, the department wishes to congratulate the three graduate students graduating in August. The civil engineering M.S. student is Maria Squillace. The two graduating construction management M.S. students are Steven King and John Meyen.

Sixty-Second Annual Honors Convocation Awards

The 62nd Annual Honors Convocation was held in the Burbeck Center Ballroom on Friday, April 12th. A number of students in the department received awards at this function. Riley Olsen received a Burbeck Scholars Award. Ben Wolf received the Outstanding Civil Engineering Junior Award. Kaleb Nielsen-Sheffield received the Outstanding Civil Engineering Senior Award and the Academic Achievement Award. Michelle Kelley received the Outstanding Environmental Engineering Senior Award. Both Anthony Kulesa and Karen Schaefers received Outstanding Master’s Student Awards. Congratulations to these six students for their diligence and hard-work in their academic and department activities.
Undergraduate Research Symposium
The SDSM&T 2013 Undergraduate Research Symposium, sponsored by the Office of Research Affairs, was held in the Surbeck Center on Tuesday, April 2. Students presented their work in three oral and three poster sessions. The CEE department actively participated in the symposium: 6 out of 26 presentations (23% of total) were made by CEE students. Two CEE student teams took the 1st and 2nd place in the poster session competition for their research studies carried out as part of their ENVE 498 course with Dr. Lew Christopher as faculty instructor and advisor. The two teams conducted feasibility studies for the Water Reclamation Facility in Rapid City that could help the facility improve their process design and realize energy savings. The 1st cash prize of $300 went to Michelle Kelley, Dan Fife, Asa Miller and Ryan Truax for their work on “Total Nitrogen and Phosphorous Removal at the Rapid City Regional Water Reclamation Facility”. Emily Squillace, Jon Fleck, Daygan Fowler and Tyler Hengen won the 2nd prize of $200 for their presentation “Enhanced Anaerobic Digestion/Cogeneration Feasibility Study”. Congratulations to these students on this achievement!
2013 Leadership Awards
On Sunday, April 14 a number of CEE students and faculty received awards at the Leadership Awards Banquet. Three CEE students received Outstanding Student Organization Member Awards for their active student org participation: Kylie Berger, Rotaract; Nicholas Claggett, American Society of Civil Engineers; and Katharine Ross, Circle K International. Spencer Ferguson received the Gustafson Student Leadership Award & Scholarship. The ASCE Student Chapter received the Board of Regent Student Organization Award for Community Service. Dr. MR Hansen received Outstanding Student Organization Advisor Reward.

2013 Phi Eta Sigma Inductees
Congratulations to the seven CEE freshmen who were inducted into the Phi Eta Sigma Honor Society on March 19th. The inductees are Travis Hirschey, Brandon Malsam, Riley Olson, Shaun Preszler, Nathan Reuer, Gina Rossi, and Averie Santilli.

Registration for FE Exam in April of 2013
Take the first step toward professional licensure – apply for the October 2013 FE exam by July 1, 2013. Seniors who are within two semesters of graduating may apply for the FE examination, which is the national examination from the NCEES. You must register with the SD Board of Technical Professions (SDBTP) online. The CEE department strongly encourages you to prepare and 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. There will be general and civil engineering specific review sessions offered next fall semester. To purchase a general review or civil engineering review manual, contact the ASCE Student Chapter. For more information about licensure in South Dakota, see the SDBTP Website. For more information about the FE exam, see the NCEES Website.

Please note that the CEE department does not require students to take the FE exam to graduate, but do not limit your opportunities by neglecting to take this exam! It becomes significantly more difficult to pass this exam after you graduate.

Curriculum Notes
CEE Curriculum Changes for 2013-2014
To help students better prepare for the FE exam, CEE 463 (Concepts of Professional Practice) will be offered fall semesters starting Fall 2013, and the course will include FE preparation activities during the first half of the semester. CEE 474 (Construction Engineering and Management) will offered spring semesters
starting Spring 2014. If you are planning to graduate in Fall 2013, please check with your advisor ASAP to see if this will affect your graduation plans. For your reference, the new curriculum flow charts are shown below.

A friendly reminder: BIOL 101 and equivalent “survey” courses do not meet the basic science elective requirement for the BSCE degree (or any engineering degree on campus). Please be sure to refer to the list of department approved electives attached here and posted on our CEE webpage under Forms. Please also note that the Webadvisor degree evaluation is not 100% accurate. Please use the flowchart and work with your advisor to ensure you will meet graduation requirements.

Environmental Engineering Emphasis/Minor Notes
Note to students following the environmental engineering emphasis or environmental engineering minor: **BiOL 341 class will be offered from 4-5 pm MWF in fall 2013** (and presumably next year, too). If you have not taken this class, please do so before your senior year, as it will conflict with senior design that is held from 3-5 pm on Mondays. Also please note that we will offer an important environmental engineering class this fall, **CEE 427/527, a biological processes class that deals with wastewater treatment.** As we didn’t offer CEE 327 this spring, we’ll be allowing students to take this course without this prerequisite (and the course will be taught accordingly). You should take this class if you will be a junior or senior and will have completed CEE 326.

Prerequisite Changes Effective Fall of 2013
Students please note the prerequisite requirements that are taking effect this semester. If you have any questions, please talk to your academic advisor.

The following prerequisite changes have been approved by the Faculty Senate and will be effective FA2013:
EM 216 Statics and Dynamics; prerequisite: MATH 123 with a C or better.
EM 331 Fluid Mechanics; prerequisite: EM 214 with a C or better.
CEE 206 Engineering Surveys I; CEE 117 and either an acceptable score on the trigonometry placement examination, or trigonometry (MATH 120) completed with a minimum grade of "C."
CEE 316 Engineering and Construction Materials; prerequisites: EM 321 with a “C” or better; and CEE 284
CEE 327 Environmental Engineering II; prerequisite: CEE 326 with a “C” or better;
CEE 336 Hydraulic Systems Design; prerequisites: EM 331 with a “C” or better; and CEE 284
CEE 337 Engineering Hydrology; prerequisite: EM 331 or EM 328 either with a “C” or better
CEE 346 Geotechnical Engineering; prerequisite: EM 321 with “C” or better
CEE 347 Geotechnical Engineering II; prerequisite: CEE 346 with a “C” or better
CEE 357 Theory/Design of Metal Structures; prerequisite: CEE 353 with a “C” or better
CEE 464 Civil Engineering Capstone Design I; prerequisites: CEE 326, 336, and 346 all with “C” or better

Student News

ASCE Student Chapter Excels at Regional Competition in Logan, UT
The SDSM&T student chapter of the American Society of Civil Engineers (ASCE) placed 2nd out of 13 schools at the 2013 ASCE Rocky Mountain Regional Conference, hosted April 4-6, 2013 by Utah State University in Logan, UT. The conference consists of seven different student competitions. 38 students represented the chapter along with ASCE faculty advisor, Dr. Bora Cetin, practitioner advisor, John Niemala and bridge team advisor, Dr. Andrea Surovek.
The steel bridge team finished in 3rd place overall, and will continue on to nationals in Seattle, WA May 31st. This is the team’s sixth qualification for the national competition the last seven years. The 17-ft bridge was constructed in 6:56 minutes with 2 penalties and weighed in at 119 lbs, making the SDSM&T bridge the lightest and second fastest at competition. The team also placed first overall in display.

The concrete canoe team had the lightest canoe and placed 4th overall and fourth in the races. This year’s theme for the canoe was The Tippy Hippie based on Hippie Hole, a local cliff jumping spot east of Keystone, SD.

The pre-design team placed 3rd overall. In this year’s pre-design competition, students were required to design a ventilation system for an orphanage. Participants included Lillian Temple, Brian Freed, and Jesse Parker.

The Mystery Design members were Megan Brown and Kristen O’Conner. Their objective was to make the lightest retaining wall possible out of paper and tape to hold against 50 pounds of sand. Since this event is meant for social networking, the team was split with other universities to work on the most efficient design.

There were two paper competitions. Gina Rossi received 3rd place for her non-technical paper and presentation on engineering ethics and licensure. Kaleb Nielsen-Sheffield received 6th place with his technical paper presentation.

In addition, the School of Mines ASCE student chapter took 3rd place in the Canstruction competition. In this event, competing teams showcase their talents by building giant sculptures made entirely out of canned foods. At the close of the conference, all of the food used for canstruction was donated to local food banks for distribution to pantries, shelters, soup kitchens, and elderly and day care centers. The SDSM&T students collected approximately 2,300 cans!

**Scholarship Opportunity**

**Deep Foundation Institute (DFI) Scholarships**

The DFI Educational Trust will award three $2,000 At-Large Scholarships, which can be used for funding, tuition, fees, books and/or living expenses. Applicants must be enrolled full time in a U.S. college or university; be pursuing a graduate or undergraduate degree in an accredited civil, geotechnical engineering or related deep foundations curriculum; and have a minimum 3.0 GPA. The deadline for applications is June 30, 2013. Awards will be announced no later than July 31, 2013. Applications and eligibility and submission requirements are online at [At-Large Scholarship Program – DFI Education Trust](#).