



## Civil and Environmental Engineering Student Newsletter

### Student Announcements

#### Congratulations to Graduating Seniors!

The CEE Department would like to congratulate the graduating seniors who will participate in winter commencement on December 15, 2012. The seven department undergraduate students who have fulfilled their degree requirements are Evan Berberich, Dustin Daniels, Daniel Hayden, Derek Helmick, Kyle McCutcheon, David Schmitz and Jonathan Tristao. In addition, three Civil graduate students: Tyler French, Tasha Hodges, and Tom Lunzman and three Construction Management students: Parkash Adhikari, Melissa Polito, and Katie Toscana have fulfilled their master's degree requirements. We wish our graduates every success in their future careers.

#### Graduation Application for May/August 2013 Graduates

The [Application for Graduation and Commencement](#) is now applicable for those students who will complete their studies by May/August of 2013. The submission deadline for the application is **January 18, 2013. This deadline will be strictly enforced.** If you have any questions, please contact your academic advisor to ensure that you meet all degree requirements.

#### CEE Graduate Seminars

There is only one more graduate seminar this semester before Christmas break. It will be held on Wednesday, **December 5, 2012 at 4:00 PM** in **CB 204W**. Liz Berg (BSCE 06) currently works for the US Army Corps of Engineers and will present her experiences on some of the projects she has been involved with.

### 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 also be moving, and will be 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.

#### Looking for a Transportation Elective?

Anyone interested in transportation may sign up for **CEE363, Section S02A Highway and Traffic Engineering** in Spring 2013. The course is being offered at SDSU and may be taken as a distance course on the SDSM&T campus via a live video feed to room CB 106 at 10 am, MWF. You can register for the course directly on Webadvisor by selecting the SDSU campus under the university button. This course may be used as a department approved elective.

## Enrollment Caps for CEE/EnvE 325, 326 Have Increased

The enrollment caps for CEE/EnvE 325 and 326 for spring 2013 have been increased. Please check Webadvisor again if you did not enroll because these courses were full.

## Registration for FE Exam in April of 2013

Take the first step toward professional licensure – apply for the **April 2013 FE exam** by **January 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 spring 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 don't limit your opportunities by neglecting to take this exam! It becomes significantly more difficult to pass this exam after you graduate.

## ASCE Civil Tongue

The [Civil Tongue](#) is now available on the [ASCE Student Chapter Website](#). This annual newsletter is maintained by the student chapter and provides updates on the chapter's activities.

## Structural Engineering Institute/ASCE Student Competition

The SEI sponsors a structural design competition for student teams who demonstrate innovation and excellence in structural engineering within their projects. Three finalist teams will be invited to present their designs the **Structures 2013 Congress in Pittsburgh, PA, May 2 – 4, 2013**. The undergraduate teams need to submit their design submittals by **January 15, 2013**. For more information, please visit the [SEI/ASCE Student Structural Design Competition Website](#).

## Student News

### Ralph O'Neill (CE36) Turns 105 Years Old!



Ralph O'Neill turned 105-years-old this past fall, and the American Society of Civil Engineers Student Chapter Members Cole Bedford (CEE, Sturgis) and Tony Kulesa (CEE, Aberdeen), along with Chapter Advisor and fellow alumnus Professor M.R. Hansen (CE69), visited Ralph O'Neill this week. Ralph is a class of 1936 civil engineering alumnus and special donor to ASCE and the Lady Hardrocker women's basketball team. The group met at Ralph's home in Custer, SD. They visited about current ASCE projects and Ralph's more than sixty years with the SDDOT and Aaron Swan & Associates. The group showed their appreciation for Ralph's support with an SMD cap, which celebrates the 100th birthday of the "M" on M-Hill. For more information about the ASCE Student Chapter, please visit the [Chapter Website](#).

## Steel Bridge Update

Steel Bridge is still going well. By the end of the month we will have a design picked out and start working on shop drawings. The team is ready to cut and fabricate as soon as we get back from Christmas break. The team also did some outreach in the community teaching the local boy scouts about engineering and fabricating a big pair of scissors for ASCE's Willie the Whale ribbon cutting ceremony.

## Concrete Canoe Update

Not much has changed this month. We continue working on the hull design by analyzing various models in Solidworks. The paddling team continues to practice outside whenever possible due to the lack of usable space in the King Center. The mix design team has had good success. By developing different concrete mixtures, they have doubled 7 day strength concrete strength and have high hopes that their mixtures will continue to improve. All in all, we are pushing forward with canoe design and hope to pour the canoe by the middle of January.

## Scholarships, Research Opportunities, and Fellowships

### South Dakota Association of Environmental Professionals Scholarship

The South Dakota Association of Environmental Professionals (SDAEP) Scholarship Program provides one or more scholarships annually to students with directed studies relating to the protection and enhancement of our natural resources, the environment, and other similar fields.

#### Who is eligible for the SDAEP Scholarship?

- Applicants should desire a career in a trade supportive to the protection and enhancement of our natural resources, environment, and/or related fields.
- Students that are intending to enroll or are already enrolled at a South Dakota university, technical institution, or other postsecondary trade school. Applicants must intend to enroll for the fall semester. High school seniors are eligible to apply.
- Students that possess a Grade Point Average of 2.0 or greater.
- Part time studies will be considered if applicant can show good cause for other than fulltime studies and that the course of study is directed toward a degree, certificate or similar identification of graduation.
- Students who have received an SDAEP scholarship in the past are eligible to apply each year.

The scholarship information/applications is available for download from the [SDAEP website](#). All applications must be complete and submitted by January 15, 2013 to be considered.

Questions may be directed to Carolyn at the number below.

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### List of Scholarships and Research Experience for Undergraduates

The ASCE Student Chapter has created a [list of scholarships](#) available for Civil/Environmental disciplines. Many of the scholarships have been awarded to students in the department over the last few years. In addition, the chapter has also created a list of national and international [Research Experience for Undergraduates \(REU\) programs](#) available for Summer 2013.

## **Research Internships in Science and Engineering (RISE) Program**

The German Academic Exchange Service (DAAD) is pleased to announce that for **summer 2013** it will offer two internship programs: **RISE** and **RISE Professional**. RISE has established itself as an outstanding opportunity to combine serious research with a rewarding study-abroad experience. Both programs are targeted to students from the fields of engineering, physics, chemistry, and other related fields.

**RISE undergraduates** have the opportunity to work on cutting edge research project at top research institutions and universities in Germany. Students are paired with German PhD students and are exposed to immediate hands-on lab work. RISE participants receive a scholarship to cover living expenses. To learn more about RISE, please visit the [RISE Website](#) or email: [rise@daad.de](mailto:rise@daad.de).

**RISE Professional** is for **Master's and PhD students**. Internships in this program can last from 1.5 to 6 months. This program also offers participants a scholarship to cover living expenses. To learn more about RISE Professional, please visit the [RISE Professional Website](#) or email: [rise-pro@daad.de](mailto:rise-pro@daad.de).

The online registration and the internship database for RISE and RISE Professional open December 6<sup>th</sup>. **The application deadline for both programs is January 31, 2013.**

## **Institute for Broadening Participation (IBP)**

The IBP has developed the [Pathways to Science Website](#), which is a summary of research and program opportunities for undergraduates, graduates, and postdocs. The site features over 450 paid summer research experiences for undergraduates, multiple graduate fellowships, and 150+ post-doctoral opportunities.

## **2013 NASA Academy**

The NASA Academy is an intense ten-week residential summer experience. Participants will live with other highly motivated interns, conduct important laboratory research at a NASA Center, and attend learning events with NASA leaders and industry experts. The [program application](#) is due **January 7<sup>th</sup>, 2013.**