Civil and Environmental Engineering Student Newsletter

Student Announcements

Outstanding Graduate Student Award Recipients
Congratulations to our two CEE graduate students who have received Outstanding Graduate Student Awards from the Office of Graduate Education. Tony Kulesa has been awarded the 1st Place Outstanding Graduate Student Award. Karen Schaefer has been awarded the 3rd Place Outstanding Graduate Student Award. Congratulations again for your accomplishments.

FE Review Sessions
For those students taking the Fundamentals of Engineering Exam this April, the CEE specific review sessions are listed below. Please plan on attending these sessions as the faculty will provide helpful information about FE Exam.

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<tr>
<th>Date</th>
<th>Topic</th>
<th>Professor</th>
<th>Time</th>
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<tr>
<td>Thursday</td>
<td>Steel Design</td>
<td>A. Surovek</td>
<td>3-4 pm</td>
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<td>2/14/2013</td>
<td>Concrete Design</td>
<td>D. Fick</td>
<td>4-5 pm</td>
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<tr>
<td>Thursday</td>
<td>Materials</td>
<td>B. Cetin</td>
<td>3-4 pm</td>
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<td>2/21/2013</td>
<td>Project Management</td>
<td>S. Amos</td>
<td>4-5 pm</td>
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<td>Wednesday</td>
<td>Structural Analysis</td>
<td>M. Robinson</td>
<td>3-5 pm (CB 116)</td>
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<td>3/20/2013</td>
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<td>Thursday</td>
<td>Geotechnical Topics</td>
<td>S. Nam</td>
<td>3-5 pm</td>
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<td>3/14/2013</td>
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<tr>
<td>Thursday</td>
<td>Hydraulic Systems &amp; Hydrology</td>
<td>T. Fontaine</td>
<td>3-4 pm</td>
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<td>3/21/2013</td>
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<td>Wednesday</td>
<td>Surveying</td>
<td>M.R. Hansen</td>
<td>4-5 pm (CB 116)</td>
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<td>4/10/2013</td>
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<td>4/13/2013</td>
<td>FE Exam</td>
<td>Dr. Stone</td>
<td>Pre-recorded</td>
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<td>Environmental Topics</td>
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*Sessions are held in CB 110 unless otherwise noted.*

The ASCE Student Chapter is selling general and discipline-specific FE review manuals. If interested in purchasing these resources, please email the [ASCE Student Chapter](mailto:).
CEE Graduate Seminars
All seminars are in the Classroom Building, room CB 204W at 4:00 pm unless otherwise noted. Check for updates at http://cee.sdsmt.edu. Everyone in the department welcome and encouraged to these seminar presentations!

3/27: Gerry Houlahan, P.E., Vice President of Moffatt & Nichol.
Moffat & Nichol is a leading global infrastructure advisor specializing in the planning and design of facilities that shape coastlines, harbors and rivers as well as an innovator in the transportation complexities associated with the movement of freight. Topic: “Offshore Wind Power – A Foundation Perspective.” PDH certificate upon request.

4/17: Chris Faulkner, Founder, President and Chief Executive Officer of Breiting Oil and Gas
Topic: TBA. PDH certificate upon request.

4/18: Western South Dakota Hydrology Conference at the Rushmore Plaza Civic Center.
Free for students. Register at the conference website.

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 News
The last couple weeks have kept our student chapter busy. First we were active during Engineer's Week building canned good structures and putting together our bridge with middle schoolers. We managed to raise another 400 cans for charity. Our first Broomball event was a success with 4 teams showing up and having a good time. We were also lucky to have Stuart Walesh come visit our campus and speak to our chapter about ethics. The Non-Technical and Technical papers are in for competition, and the Pre-design team is finishing up their design as well. Finally our presenters are preparing for is the SDES/ASCE joint Luncheon which will be held March 19th at 11:30 in the King Center Hall of Fame room. For more information on ASCE Student Activities, please email the ASCE Student Chapter.

Steel Bridge Update
The Bridge is nearly complete. Just before spring break we put 2500 lbs on our bridge and it held like a champ. Unfortunately we still have to add some members to the bridge to stiffen it up for a different part of the competition. Once we stiffen the bridge, we will practice putting the bridge together as fast as possible until regionals. Everything is falling in place and we hope to do really well in Logan, Utah. For more information on Steel Bridge Events, please email Chris Timm, Steel Bridge Co-Captain.

Concrete Canoe Update
The concrete canoe team has been busy sanding down the inside of the canoe, applying a skim coat for ascetics, writing the design paper for the regional competition in April, as well as starting the staining process on the inside of the canoe. The next couple of weeks will be a very exciting time for our team with working on the paddling races, presentation, and finishing the canoe to be in tip top shape for Regionals this year. For more information about Concrete Canoes Events, please email Ben Wolf.

Scholarships, Research Opportunities, and Fellowships

Graduate Research Assistantship to Study Grazing in Ponderosa Stands
A graduate assistantship is available immediately for either an M.S. or Ph.D. candidate. The applicants must be interested in studying the interrelationships among grazing, understory vegetation, and Ponderosa stand response in the Black Hills. The assistantship is through SDSU but will be conducted mostly from the Black Hills area. For more information about this graduate opportunity and contact information, please see the attached document.
Simulation and Analysis REU at South Dakota State University
This summer, ten REU student scholars will be engaged in an intensive eight-week program of computationally intensive simulation and analysis in the areas of mathematics, statistics, electrical engineering and mechanical engineering at SDSU. The interdisciplinary research projects featured in this program revolve around simulation and analysis of engineered systems. The project areas include computational fluid dynamics, computational science, photovoltaics, and statistics. The application deadline is April 5. The REU program will run from June 3rd – July 27th. For more information and the program application, please reference the REU Website.

American Institute of Steel Construction Scholarships
The 2013-14 academic year application is now live! Information and the online application form can be found at www.aisc.org/scholarships. Scholarships are available for both undergraduate and graduate students.

SD Soil and Water Conservation Society Scholarships
The SD Soil and Water Conservation Society is offering 2 - $500 scholarships to students who are enrolled in a natural science conservation related major. The scholarship packet has to be post marked April 1st. For more information and the scholarship application, be see the Scholarship Website.

Associated General Contractors of SD Highway-Heavy-Utilities Scholarships
The AGC of SD Highway-Heavy-Utilities is once again offering a number of scholarships to undergraduate students enrolled in career field directly related to construction. The application due date is May 3rd. For more information and a copy of the scholarship application, please refer to the Scholarship Website.

Internships and Full Time Positions
Entry-Level Civil Engineering Position at CETEC Engineering Service, Inc.
CETEC offers a great work environment, competitive salary in the fast growing Rapid City area. CETEC staff have been involved in improving public and private infrastructure to provide a quality place to live, work and play. The beautiful Black Hills are no longer a secret and CETEC is committed to serving the growing needs of our community. Please send us your resume if you are interested in joining our team. There is an open position for entry level civil engineer with 0-10 years experience. Applicants should have a design emphasis in public works, including water and wastewater systems. EIT registration is required. Respond with resume by mail to: CETEC Engineering Services, Inc., 1560 Concourse Drive, Rapid City, SD 57703 or by email.

Assistant Geotechnical Engineer Position with SD DOT
The South Dakota Department of Transportation is advertising for an entry level geotechnical engineering position. The position will provide design information to transportation projects throughout the state. The position requires regular travel and overnight travel with drill crews for the first several months. The closing for this position is March 28, 2013. For more information, please see the attached Job Posting.
Remediation Engineering Internship with Dalton, Olmsted, & Fuglevand in WA State

Dalton, Olmsted, & Fuglevand is seeking an Intern to assist with an environmental dredging project with Boeing in South Seattle. Ideal candidates would have the following qualifications:
  o Be of at least junior standing in civil/environmental engineering, or a related field
  o Have at least a 3.0 GPA (preferably at least a 3.5)
  o Be a fast learner, able to work independently, can work well with both engineers and people in construction industry
  o M.S. applicants preferred
  o Have an interest in environmental dredging

Interested candidates may email their resumes directly to SDSM&T Alumna Teal Dreher at tdreher@dofnw.com.