

# Geological Engineering Update

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GLE Alumni and Friends:

I am glad to bring you this update on the Geological Engineering Program, which has had an eventful year.

One of the highlights of 2007 is the re-accreditation of the BS GLE degree. The program was fully re-accredited this past year by ABET, the national engineering accreditation agency in the US. A degree from an accredited program is a requirement for licensure as a professional engineer. Thus, accreditation is critical to GLE. Special thanks are due to Professors Tuncer Edil, Dante Fratta, and Peter Bosscher, who toiled for numerous hours preparing the ABET review package.

Major changes in the GLE faculty are occurring. This past November, Professor Peter Bosscher passed away after a courageous battle with cancer. Peter was part of GLE from its inception and was the leader of UW's Engineers Without Borders program. He will be missed greatly. Professor Bezalel Haimson retired in May 2007, and I will be moving on to an administrative position at the University of Washington in Fall 2008. While these changes will affect the GLE program, they also offer the opportunity for renewal and new growth. Along these lines, Dr. James Schneider of the University of Western Australia will join GLE as an assistant professor in Summer 2008. GLE is also partaking in a new faculty search underway within the College of Engineering.

We have great news regarding enrollments. We have by far the largest enrollment in GLE 171 (Introduction to Geological Engineering) in recent years. We believe this is a harbinger of the future, and we expect undergraduate enrollment in GLE to increase. Society's interest in sustainability, which is a traditional characteristic of GLE training, is fuel for this growth in GLE.

The graduate program remains strong, with the quality of the MS and PhD students being the best in GLE's history. We have a blend of domestic (2/3) and international (1/3) students representing 12 states and 7 nations. Our domestic students come from states ranging from Montana to Georgia, and our international students are from diverse countries such as Iran, Turkey, and Vietnam. Most of the graduate students have undergraduate degrees in GLE or Geology (or both).



**GLE alumna Tammy Rauen on a job site in fall 2007. Tammy holds two degrees from UW-Madison, a BS in Geology (03) and an MS in GLE (07). She is employed in the Denver office of Golder Associates.** (Courtesy of Craig Benson)

The job market for graduates in GLE remains at an all-time high, which reflects the strong nationwide demand for engineers (and the shortage of available engineers). Graduates have been receiving multiple offers with very competitive salaries. The dual GLE-Geology degrees that

our undergraduates obtain also are extremely popular with employers. Indeed, this is a good time to be graduating from GLE!

GLE would like to hear from you! Please let us know what is new in your life by emailing me at benson@engr.wisc.edu. ●

## *Weeks Lectures and Speakers of Opportunity in 2007*

January 26 – Kelin Wang – Geological Survey of Canada – Pacific Geoscience Center – Stress and strain in subduction earthquake cycles.

February 2 – James Evans – Utah State University – Deformation, fluid-rock interactions, and chemical alteration in fault zones from the surface to 10 km+ depth; The links between earthquakes, geochemistry and structural geology.

February 9 – Naomi Oreskes – University of California-San Diego – Cold War scientists and the denial of global warming.

March 16 – Jim De Yoreo – Lawrence Livermore National Laboratory – Biomolecular controls on directed nucleation and growth of calcite.

March 23 – Qusheng Jin – University of Oregon – Mobility of biogenic metal sulfide nanoparticles in natural environments.

April 13 – Zeshan Ismat – Franklin and Marshall University – Cataclastic flow: A means for ensuring ductility within the upper crust.

May 11 – Nigel Hughes – University of California-Riverside – Stratigraphic tests of the structure of the Himalaya: how Cambrian trilobites constrain Himalayan geology and uplift history.

September 6 – Bridget R. Scanlon – UT-Austin – Birdsall-Dreiss Distinguished Lecture

September 14 – Ken Hoffman – California Poly San Luis Obispo and UW-Madison

September 21 – Yifeng Wang – Sandia National Labs – Biogeochemistry of deep geologic nuclear waste repositories.

September 28 – Larry Edwards – University of Minnesota – 300,000 years of Asian monsoon history from caves.

October 5 – Jake Tossell – University of Maryland – Solid H<sub>2</sub>CO<sub>3</sub>? A candidate for CO<sub>2</sub> sequestration? – Fractionating B isotopes: Experiment and theory.

October 12 – Hans Rudolf Wenk – University of California-Berkeley – Revisiting mechanical twinning in quartzites and Deformation and anisotropy in the Earth.

October 19 – Ben van der Pluijm – University of Michigan

October 26 – Scott McLennan – The sedimentary rock cycle of Mars: A geochemical perspective.

November 2 – Kurt Konhäuser – Microbial silicification and Precambrian biosignatures.

November 9 – Jeff Post – Smithsonian – Manganese oxide minerals: Soils to Synchrotron.

November 16 – Hiroshi Ohmoto – Penn State University – Origin of banded iron formations.

November 30 – Jim Butler – Kansas Geological Survey – 2007 Darcy Lecturer – Getting the information ground water modelers need: A report from the field.