

New Name of Civil and *Environmental* Engineering

Reflecting its growing emphasis on environmental engineering, the Department of Civil Engineering has added to its name, creating the new name of the Department of Civil and *Environmental* Engineering.

“Our name change demonstrates the steady evolution of our programs and the increasing importance of environmental aspects of engineering,” said Department Chairman Dr. David Young.

At the undergraduate level, the department is placing a greater emphasis on environmental engineering, offering several environmental concentrations within its bachelor’s program.

At the graduate level, the Master’s in Civil Engineering offers concentrated study and a thesis option in environmental engineering. The department also directs the Ph.D.



Graduate students Swetha Manian, left, and Maryam Zavareh test wastewater samples as part of a utilities research project in a Civil and Environmental Engineering laboratory.

program in Infrastructure and Environmental Systems.

Environmental engineering researchers are also major players in the Global Institute for Energy and Environmental Systems, the community-outreach Environmental Assistance Office and the emerging interdisciplinary emphasis on sustainability.

Dr. Brian Anderson Wins Maxheim Fellowship

Dr. Brian Anderson of the Department of Civil and Environmental Engineering has won the Lee College of Engineering’s 2007 John H. Maxheim Faculty Fellowship for his significant contributions to teaching, service and research.

An expert in the area of in-situ/field soil testing, Dr. Anderson is developing a research program and related classes within the Lee College of Engineering. He has introduced several new courses including Shallow Foundations, Deep Foundations, and Advanced Experimental Techniques. As part of the new Ph.D. Program in Infrastructure and Environmental Systems, Dr. Anderson is involved in interdisciplinary teaching and research relationships across geotechnical and geoscience areas.



Dr. Brian Anderson

The John H. Maxheim Faculty Fellowship recognizes and promotes the career development of tenure-track junior faculty in the Lee College of Engineering. The fellowship assists junior faculty with their development and growth as educators and scholars.

ECE Senior Elected Student Body President



Justin Ritchie addresses the UNC Charlotte faculty and staff at the 2007 university convocation.

Justin Ritchie, a senior double majoring in electrical engineering and physics, was recently elected president of the UNC Charlotte student body for the 2007-2008 school year. Ritchie has held the position of speaker pro temp during the past two years as a senator in the Student Government Association. A

native of Salisbury, Ritchie is an avid supporter of 49er athletics and rarely misses a men's basketball game.

College Teaching Awards

Dr. Jim Bowen of the Department of Civil and Environmental Engineering and Dr. Jiang (Linda) Xie of the Department of Electrical and Computer Engineering have been named the college of engineering's outstanding teachers for 2007. Dr. Bowen is the recipient of the Undergraduate Award in Teaching Excellence, and Dr. Xie is the recipient of the Graduate Award in Teaching Excellence.

Dr. Daniels Named NSF Fellow

Dr. John Daniels of Civil and Environmental Engineering has recently been selected by the American Association for the Advancement of Science (AAAS) as a Science and Technology Fellow for the coming academic year. As an AAAS Fellow, Daniels will work in Washington D.C. at the U.S. National Science Foundation (NSF) within the Directorate of Engineering, in the Division of Engineering Education and Centers.

Motorsports Award

The Lee College of Engineering Motorsports Engineering program was honored by the North Carolina Motorsports Association with its Education Award for four-year programs. The NCMA award was given for significant contributions and positive impact on the motorsports industry in North Carolina. The UNC Charlotte motorsports engineering program has placed more than 40 graduates in jobs with NASCAR, Busch and Nextel Cup Series teams.

New B.S. Program in Construction Management

To meet the increasing demand for construction professionals in the fast-growing Charlotte region, the Department of Engineering Technology has begun a new program in Construction Management.

The Bachelor of Science in Construction Management (BSCM) program is designed to provide the construction education necessary for entry into the construction industry and related careers such as real estate and land development, infrastructure development, code enforcement and insurance.

The first two years of Construction Management emphasize mathematics and science, and written and oral communication skills. Students concentrate on fundamentals of engineering technology, surveying, construction materials, construction methods and estimating, computer-aided drafting and drawings for civil and construction engineering projects, and introductory courses in environmental technology and structures.

The third and fourth years provide students greater depth of study of civil infrastructure to include foundations and earthwork, elementary structures, building systems, and highway design and construction. In addition, project management areas of study include project scheduling and control, construction contract documents, construction practices, and construction project administration. The technical core utilizes state-of-the-practice software applications such as AutoCad, Land Development, Primavera P3 and SureTrak, and Timberline Estimating.

The program is further enhanced by a business / management core that includes courses in statistics, computer applications, economics, accounting, engineering economics, business management, business law, finance, and construction law.



Meeting the growing demands of the construction industry in Charlotte, the Lee College of Engineering has begun a Bachelor of Science in Construction Management program.



Dr. Matt Davies

Dr. Davies Honored for UNC Charlotte Teaching Distinction

For his innovative teaching style including such things as online homework chat rooms, Dr. Matt Davies of Mechanical Engineering and Engineering Science has won the university's Bonnie E. Cone Early Career Professorship for Teaching distinction.

"The word 'exceptional' comes to mind when I consider Dr. Matt Davies' teaching record," said Dr. Bob Johnson, dean of the College of Engineering. "Dr. Davies' teaching performance is outstanding, and he is one of the most innovative instructors in the college."

For his part, Davies said he enjoys collaborating with students. "I am finding that one key to successful teaching is being able to 'connect' with the students," he said. "But how can I accomplish this practically? One way is to change the atmosphere of the class from adversarial, where students are merely trying to 'get a good grade,' to one where the teacher works with the students to make the class, and the teaching, effective for them."

In his undergraduate classes, Davies meets regularly with a small volunteer improvement committee, which provides feedback on the class, develops a mid-semester survey for all students to comment, and helps coordinate the schedule for exams, review sessions and other events. He has incorporated many of their creative ideas in his teaching.

His WebCT course sites use secure internet connections to deliver instructional materials include notes, homework solutions, chat rooms, office hours, and postings of interest to students such as internships and employment opportunities. Davis also serves as the faculty advisor for the student section of the American Society of Mechanical Engineering and for senior design teams in their year-long projects.

Approved by the UNC Charlotte Board of Trustees in December 2005, the Bonnie E. Cone Early-Career Professorship for Teaching is awarded to a faculty member who has been awarded tenure within the last three years.

Dr. Conrad Wins IEEE award

Dr. Jim Conrad of Electrical and Computer Engineering has won the Institute of Electrical and Electronics Engineers (IEEE) Joseph M. Biedenbach Outstanding Engineering Educator Award for region 3. The award is given in recognition of a member who through teaching has made an outstanding contribution to the electrotechnology profession.

Manufacturing Awards

Mechanical Engineering professor Dr. Scott Smith has won the Charles F. Carter Jr. Advancing Manufacturing award from the Association for Manufacturing Technology, and he was elected President Elect of the North American Manufacturing Research Institute of the Society of Manufacturing Engineers.

Dr. Brigid Mullany of Mechanical Engineering won the 2007 SME Kuo K. Wang Outstanding Young Manufacturing Engineer Award.

Dr. Orozco Honored for Best Paper

Dr. Carlos Orozco of Engineering Technology won the Harden-Simons Prize for the outstanding paper in computational methods for the Computers in Education Division of American Society of Engineering Educators. The prize was awarded for his paper titled "Simulating the Forced Vibrations of an Elastic Plate Using a Simple Finite Element and Maple."

Dr. Coger Named to NIH Study Section

The National Institutes of Health has announced that Dr. Robin Coger, professor of mechanical engineering and Director of the Center for Biomedical Engineering Systems, has been appointed to serve as a member of the Center for Scientific Review's Gene and Drug Delivery Systems Study Section. Study sections review grant applications, make recommendations to appropriate NIH national advisory councils and survey the status of research in their fields.



Dr. Robin Coger, right, with graduate students in her laboratory.

Doctoral Student Wins UNC Charlotte Humanitarian Award

For his amazing amount of service including relief work following Hurricane Katrina and the Indian Ocean tsunami, Brett Tempest, a student in the Infrastructure and Environmental Systems Ph.D. program, has been named the winner of UNC Charlotte's 2007 Nish Jamgotch Humanitarian Award (and its \$10,000 prize).

By alternating between school and service work, Tempest is making a difference in the lives of others. His educational background is extensive and includes a bachelor's degree in international studies from UNC Chapel Hill in 2001, a bachelor's in civil engineering (magna cum laude) from UNC Charlotte in 2004, a master's in civil engineering from UNC Charlotte in 2007, and now as a student in the INES Ph.D. program.

Tempest served two years with AmeriCorps/National Civilian Community Corps, first in 2000 as an assistant team leader primarily working in the western U.S.; then, in 2005, he returned to AmeriCorps as a team leader focusing on the Hurricane Katrina relief effort.

After his work in the Mississippi area, he volunteered for a one-year period to serve with Habitat for Humanity International. He was assigned to the Indian Ocean Tsunami reconstruction effort and was stationed for 11 months in Pondicherry, India, working as a project



Brett Tempest, second from left on back row, at one of the homes he was involved in building with Habitat for Humanity in the tsunami flooded village of Alambaraikuppam, India.

manager supervising a seven-member engineering field staff and a large number of local contractors and construction personnel.

The Nish Jamgotch Jr. Humanitarian Student Award is awarded and primarily funded by Nish Jamgotch, a political science professor emeritus at UNC Charlotte, who taught at the university from 1966 through 1993. The \$10,000 award recognizes a student who demonstrates achievement and notable work in the humanitarian field.

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