



COLLEGE OF INNOVATION

Sparking Entrepreneurship and Enterprise in UW-Madison Engineers

In the UW-Madison College of Engineering (COE), innovation is at the very core of teaching and research culture, and continues to produce benefits for the Wisconsin economy and beyond. COE strives to create a “culture of innovation” for engineering undergraduate and graduate students. The college approaches innovation as a talent that can be taught and developed in students. It presents innovation as a broader part of professional life that not only helps create new businesses and products but also fuels “innovation from within” at established companies.



Students demonstrate their entry in the Biomedical Engineering Design Competition. →

HANDS-ON OPPORTUNITIES AROUND

Student participation in entrepreneurship efforts shows signs of continued growth, and the college has responded with increased opportunities. This overview covers the wide range of programs offered by the College of Engineering, including some in partnership with other campus units, related to entrepreneurship and innovation.

- **The Schoofs Prize for Creativity and Tong Prototype Prize (Innovation Days):** First offered in 1994 through the vision of COE alumnus Richard Schoofs, the Schoofs Prize for Creativity provides a platform for UW-Madison undergraduates to explore creative problem-solving ideas. The Tong Prototype Prize, started in 1995, is made possible by the Tong Family Foundation (UW-Madison alumni Peter and Janet Tong) and rewards original, useful and market-ready prototypes. The intent of both prizes is to awaken the inner talent that students possess in creativity and entrepreneurship.
- **The Tong Biomedical Engineering Design Competition:** This competition, also supported through the Tong Family Foundation, encourages biomedical engineering (BME) students to design and build prototypes of their ideas in pursuit of new business ventures. Launched in 2007, the awards provide funds for prototype fabrication; promote and reward innovative BME undergraduate design prototypes; and help promising design projects continue development through funding and student employment.
- **The Qualcomm Wireless Prize:** This is the newest addition to the COE-run innovation prizes, slated to debut in spring 2011. This campus-level prize seeks to integrate the best ideas in wireless

technology applications with tangible, market-ready business plans. The prize will be offered in parallel with the Burrill Business Plan Competition and will offer awards of \$10,000, \$5,000 and \$2,500 to the top three winners.

- **New Certificate Programs in Engineering & Business:** In partnership with COE and other colleges, the Wisconsin School of Business offers three new certificate programs meant to foster greater entrepreneurship and business skills in scientists and engineers. The programs include an undergraduate certificate in entrepreneurship and graduate-level certificates in both entrepreneurship and technology innovation.
- **New Engineering Courses on the Innovation Process:** Beginning in fall 2009, students interested in becoming entrepreneurs can learn from the rich experiences of two innovators. Chad Sorenson, the 2000 Schoofs Prize winner and founder of two successful firms, teaches an Innovation Days seminar series course that outlines the fundamental steps of entrepreneurship. And Matthew Ogle, a biomedical engineer with more than 30 patents, teaches a course called “Business and Entrepreneurship for Engineers” focused on his own background in launching technology-based businesses.
- **Senior Capstone Design Opportunities:** Most degree programs in COE offer senior-level capstone design courses, allowing students to apply years of engineering academic training to a real-world problem. These courses give students the creative flexibility to identify, investigate and implement the most impactful projects. They help students develop the teamwork, creativity and initiative needed for professional success.

HOW YOU CAN GET INVOLVED

- Innovation competitions are a great way for alumni and friends to get involved in the engineering student experience. Alumni judges bring private-sector expertise to the competitions, and guest lecturers offer technical insight on entrepreneurship topics.
- Competitions are expensive to run well. Private gifts enable the college to provide better equipment, lab access and materials support for students implementing designs and building prototypes, and offer workshops and training opportunities that produce more competitive participants.
- Private support will help the college recruit and retain private-sector business people to teach by example in areas such as intellectual property, business plans, prototyping, marketing, product development and other areas critical to entrepreneurial success.
- Private donors may also sponsor graduate fellowships in entrepreneurship, enabling those students to further pursue technology innovation and teach those principles to undergraduates.
- Corporations may consider on-site sponsorship of competition winners by offering internships or access to technology incubation space to help commercialize ideas.

“One of the really rewarding things that I got out my experience here was not just class, but extra-curricular activities like competition. They let me discover part of my capabilities I could not get in class and led to my entrepreneurial path. Around graduation I got an attorney, formed an LLC and got some investors.”

— Chad Sorenson, 1999 graduate of mechanical engineering, multiple winner of UW-Madison innovation prizes, and current CEO of Sologear LLC in Middleton. The company he started as a student, Fluent Systems, sold for \$1.5 million only 18 months after his graduation.



Students working on competition prototypes widely use the COE Student Shop.

FOR MORE INFORMATION

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