2012 Gordon Prize for Innovation in Engineering and Technology Education

Curious Cat Science and Engineering Blog

I have posted on the Olin College of Engineering [1] several times. I really like what they are doing. Innovation in engineering education will pay high dividends, especially providing a focus on the nexus of engineering and entrepreneurship [2].

Olin College of Engineeringâ□□s three founding academic leaders, Richard Miller, David Kerns and Sherra Kerns, received one of engineeringâ□□s highest honors – the Bernard M. Gordon Prize. The $500,000 prize is awarded by the National Academy of Engineering to recognize innovation in engineering and technological education.

â□□This team of educational innovators has had a profound impact on society by improving the way we educate the next generation of engineers,â□□ said NAE President Charles M. Vest. â□□Olin serves as an exemplar for the rest of the engineering world and a collaborative agent for change.â□□

Armed with one of the largest gifts in the history of higher education, the F. W. Olin Foundation recruited Richard Miller as Olinâ□□s first employee in 1999. To help build the college from scratch, Miller recruited the founding academic leadership team including David Kerns and Sherra Kerns later that year. Together, they developed a vision for an engaging approach to teaching engineering and a new culture of learning that is intensely student centered.

To insure a fresh approach, Olin does not offer tenure, has no academic departments, offers only degrees in engineering, and provides large merit-based scholarships to all admitted students.

Perhaps the most important contribution the Gordon prize recipients made was the creation of a profoundly inclusive and collaborative process of experimentation and decision-making involving students in every aspect of the invention of the institution. This is illustrated by the decision in 2001 to recruit 30 young students to spend a year as â□□partnersâ□□ in residence with the faculty in conducting many experiments together before establishing the first curriculum.

â□□As entrepreneurs, we learn to listen to our customers. Olinâ□□s innovative approach was co-created by enterprising faculty, inspired students, and a dedicated staff, as well as collecting and integrating innovative approaches from more than 30 other institutions worldwide,â□□ said David Kerns, current faculty at Olin and founding provost and chief academic officer of the college from 1999 to 2007.

With the extensive help of a collaborative team of faculty and students, and the guidance of the late Dr. Michael Moody, a novel academic program emerged. Some

of the features include a nearly gender-balanced community, a strong focus on design process throughout all four years, extensive use of team projects, a requirement that students repeatedly â□□stand and deliverâ□□ to the entire community at the end of every semester, an experiential requirement in business and entrepreneurship, a capstone requirement outside of engineering, and a year-long corporate-sponsored design project in which corporations pay $50,000 per project.

Links:
[1] http://engineering.curiouscatblog.net/2006/10/09/innovative-science-and-engineer-higher-education/
[2] http://engineering.curiouscatblog.net/2006/07/01/the-future-is-engineering/