

Olin College's EELI Challenge Statement

Olin College faces many of the challenges outlined in the document, "The Engineer of 2020". Chapter four describes traits needed in engineering graduates of 2020 and includes characteristics such as creativity, ingenuity, professionalism and leadership. Chapter three also touches on leadership, calling for "...engineers who are broadly educated, who see themselves as global citizens, who can be leaders in business and public service, and who are ethically grounded."

First, Olin College sees infusing engineering education with an attention to leadership skill development as on-going challenge. We are attempting to address this through a strong partnership with Babson College a nearby business school with expertise in entrepreneurship, and by enhancing communications and teaming skills through project based education. There is required formal instruction in business in the sophomore year, and the opportunity for students with interest to take additional elective material, including starting a real business.

Effective leadership is related to enhancing ingenuity or creativity. This is a special challenge because most traditional curricula stress engineering science and analysis for the early years, and creative design only occurs near the end of the 4-year program. Olin College is attempting to address through integrating design projects throughout all four years of the curriculum, and providing formal instruction in user-oriented design, with faculty trained in design. An effort is also made to provide music and art instruction, and opportunities in the humanities and social sciences.

Olin College, since its inception, has had a strong commitment to diversity in engineering. This has been reflected in our active recruitment of female students and faculty; women make up nearly 50% of our student body. However, in order to build on this success, we also need to develop a culture in which women (together with underrepresented minorities) feel welcome and valued, and have access to the experiences and opportunities that will help them in their professional future. One of our primary challenges as an institution, therefore, is to determine how best to foster this environment, in order to enhance the experience of historically underrepresented groups at Olin as well as to prepare all of our students for a career in a diverse workforce.

A third area of challenge is creating opportunities for engineering students to understand other cultures, and become "broadly educated....global citizens". Olin College is attempting to address this by designing the junior year so that students can study abroad for an entire semester, and still graduate in four years. This requires a pro-active "study away" initiative; our first class will graduate with approximately 40% of the class having spent at least a semester in a culture other than their own.

While the issues Olin College sees as priorities are common to many engineering educational institutions, each institution works within their unique context. Olin's context is not traditional, since it was started from a "blank slate" beginning in 1999. The overarching issue of creating a society that stimulates and empowers learners and celebrates their achievements is central.