

UW-Madison College of Engineering 2003-04 Annual Report on Academic Program Assessment

1. Has your school/college assessment plan been updated in the past year?

Minor modifications have been made to the plan, including adoption of revised Educational Objectives for Undergraduate Education (to satisfy new ABET requirements) and modification of the plan for conducting 10-year program reviews.

2. Describe any assessment activities conducted in the school/college for unit-wide programmatic or curricular review.

This has been an active year for the college in reviewing undergraduate curricula. The college's curriculum committee (APCRC) has undertaken a review of the first year curriculum, with an eye toward ensuring the requirements are appropriate, particularly given the actual characteristics of our incoming students (as opposed to the ideal student, for whom many curricula are designed). The APCRC reviewed a variety of data, including information on changes of intended degree among first-year students, exit survey information on student preferences, interviews with current undergraduates, and comparison tables of departmental requirements and course topics. Much of this data existed or was readily available, but needed to be presented to the APCRC members, many of whom were not aware what information could be accessed.

The college's Operating Committee (made up of department chairs, associate deans, and the dean) undertook a review of the changing nature of engineering practice and its implications for undergraduate education, relying heavily on national reports on the increasingly interdisciplinary nature of engineering practice and the need to prepare students by providing them with expertise outside of their chosen degree program. The Operating Committee and the Vision Task Forces set up over the past year are now discussing whether and how to establish requirements for more cross-disciplinary coursework. At this early stage in the discussions, no decisions have yet been made about how such changes might be assessed if they are adopted.

3. Describe the assessment activity in your academic programs and departments.

All of our academic programs have active assessment plans. The undergraduate plans are shaped in large part by accreditation requirements and thus have some commonality. Graduate plans are less uniform. Departments continue to work toward satisfying ABET's detailed requirements, and the main progress over the past year has been in updating our "educational objectives" (now defined by ABET as the "expected accomplishments of graduates during the first few years following graduation") and adapting assessment plans to ensure that appropriate data is being gathered on alumni. As noted in our Assessment Plan for 2003-08, the college encourages departments and programs to develop plans that are appropriate to their needs and resources (in part because ABET accredits programs, not colleges). That said, all of the programs in the college conduct exit surveys (including the EBI survey and often a supplemental department-specific survey), alumni surveys (samples are available at <http://www.engr.wisc.edu/faculty/assessment/members/worksheets.html#ExampleAlumniSurveys>), and advisory board reviews. Programs are being encouraged to conduct detailed analyses of their students' performance in Capstone Design courses as well, to complement the new analysis of first-year design students. Each of these assessments has convinced us that our graduates are generally well-qualified and satisfied with their education – the opportunities we provide for student extracurricular projects and leadership development are often cited as particular and distinguishing strengths of our college. Concerns that have arisen have focused on first-year courses (note APCRC activities described in #2 above) and on students' preparation in such areas as professional ethics, sustainability, global perspective, and communication skills (note Operating Committee activities described in #2 above, the increase in international programs, the newly formed Engineers without Borders, and on-going efforts to identify ways to incorporate ethics into the curricula). A key challenge in educational assessment and curricular evolution is to ensure that the two activities are complementary and that groups involved in one are apprised of the other – existing data must be available to (and used by) groups considering curricular changes in a timely fashion, and information on potential curricular changes must be provided to (and used by) groups designing assessment plans.

4. Describe plans for academic assessment activities for the coming year in your school/college.

The college's assessment timetable appears at <http://www.engr.wisc.edu/faculty/assessment/members/>.