

UOAC Minutes 2/21/2011

The Undergraduate Outcomes Assessment Committee held its tenth meeting of the year at 11:00 am Monday, February 21, 2011 in the Morgan Room of the Campus Center.

Present: Peter Christopher, Chrys Demetry, Michael Egan, Peter Hansen, Art Heinricher, Mustafa Fofana, Lance Schachterle

1. The committee approved the minutes of the meeting of January 31, 2011.
2. The committee continued its discussion of preparation for the NEASC self-study. The chair of the NEASC visiting committee will be on campus in D Term. The members of the WPI planning committee are working on their respective chapters of the self-study report, including Finance, Library, Governance, Students and so on. The visit will take place next October, and the visiting team will have the chance to meet with students.
3. The committee discussed how to respond to the comparative weakness reported by WPI students in the first year in active and collaborative learning despite the involvement of many students in first-year seminars. The Dean of Undergraduate Studies should take this issue to the Committee on Academic Policy. CAP has received a report of the First-Year Project Planning Committee. The committee discussed the Great Problems Seminars (GPS), which appear to be successful in attracting and engaging about one-third of the first-year class. The Student Government Association has discussed extensively the difficulties for student course scheduling created by the two-term format of the GPS. The committee also discussed the variety of ways in which active and collaborative learning strategies may be used in other first-year classes, including large classes.
4. The committee discussed an overview of the EBI Survey of Exiting Engineering Students prepared by Art Heinricher. This commercial survey is taken by engineering majors in many ABET-accredited institutions. At WPI, the EBI Survey is usually completed on Project Presentation Day, and some departments have a higher response rate than others. While it is designed to capture student responses relevant to ABET EC2000 criteria, it also provides much that is useful for WPI. Results may be compared to a "select six" institutions chosen by WPI (BU, Carnegie Mellon, Dartmouth, Drexel, MIT, and Northeastern), by Carnegie Classification, or to all 70 institutions which administer the survey.

The EBI response data are grouped into fifteen factors. In 2010, the factor mean for WPI was above the mean for the "Select Six" in fourteen of the fifteen factors, with WPI ranked in the top three for thirteen out of fifteen factors. In 2009, WPI responses were more favorable in eight of the fifteen and in 2007 for eleven of those factors. WPI's lowest ranking among the Select Six is for Factor 6, measuring WPI students' assessment of their fellow students. The committee discussed this factor, and what it may say about WPI students.

WPI's highest factor score was for Factor 8 (questions related to system design and problem solving). WPI's lowest response (4.91 on the 7 point scale) was for Factor 13 which includes specific

questions regarding the teaching of ethical issues and Factor 7 which addresses the Career Services and Placement. Although WPI had a low absolute scores on both factors, WPI was still above the mean for the Select Six.

The survey also asks questions about satisfaction with quality of teaching required in course work in Physics, Chemistry, Calculus and Differential Equations. The WPI mean for Differential Equations teaching is below the mean for the Select Six in all four years from 2007-2010 (with WPI's highest ranking 6 or 7 in three out of four years). The WPI mean for Calculus moved above the Select Six mean for the first time in five years. The WPI mean for Physics has been above the Select 6 mean every year except 2007 and has been ranked 2 or 3 each year. The WPI mean for Chemistry has been above the Select Six mean every year, once again with ranked 2 or 3 each year.

Compared to all 70 institutions, WPI had high comparative positive ratings for satisfaction with "practical experiences in the curriculum," "quality of student/faculty interaction," and "team experience." Negative comparisons occur for satisfaction with fellow students (academic quality and level of camaraderie), and the value of the investment.

5. The committee will discuss ethics and the Noel Levitz survey at the next meeting.

Meeting adjourned at 11:55 am.

Respectfully submitted,

Peter Hansen, Secretary