

UNDERGRADUATE OUTCOMES ASSESSMENT COMMITTEE (UOAC)  
WORCESTER POLYTECHNIC INSTITUTE

Minutes of 2018-19 meeting #2, September 14, 2018

Present: J deWinter (chair; secretary), Q. Wen, J. Liang, A. Donta-Venman (Institutional Research), C. Demetry (Morgan Center), and guests P. St. Louis, N. Gatsonis, J. Plummer, S. Kmiotek, J. Sullivan, and B. Savilonis

The meeting came to order at 11:03.

The committee invited representatives from the engineering programs on campus as guests. 10 programs will be reviewed by ABET in 2020, and ABET has recently revised its outcomes, resulting in more specificity in application and ethics within complex systems. The university-wide outcomes at WPI mapped to an older articulation of ABET outcomes, so current conversations for more specificity compliment current ABET definitions.

The committee and guests discussed the need to revise the MQP assessment mechanisms to be able to measure ABET outcomes but possibly mapping language in the revision process. Further, ABET coordinators expressed the need to look at student forms, and wanted access to faculty assessments of student MQPs as well. The challenge, as discussed, was that many faculty do not fill out the MQP faculty evaluation of student achievement because the form is not an integrated part of the approval process.

The larger challenge that the ABET coordinators identified is that assessment data is not centralized, and it is not always clear where certain data resides. Proposed solutions included creating a central folder and working with the Provost's office, the office of Institutional Research, and eProjects to create a repository. Further, it would be useful if data can be pulled for single programs rather than by faculty via the eProjects system. Future development might look at making data downloadable into excel for systematic analysis of programs rather than individuals. A number of external surveys have useful data, such as the EBI, and need to be formatted for use in ABET and university-wide outcomes assessment.

A number of approaches were discussed for collecting evidence from student performance and evaluating programs against ABET standards: A professional engineering responsibilities statement in the MQP report, an explicit write up about ethics and society in the MQP report, a required seminar series on ethics, senior surveys, external MQP evaluators comprised of industry professionals and alumni, and so forth. A currently running alumni survey will likely produce useful data and might be revised in the next version to map more closely to the ABET outcomes.

The committee discussed IQP assessment data, especially as it pertains to ABET Outcome #4 – “an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgements, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.” A suggestion was made to contact R. Vaz and P. Quinn for the longitudinal study about IQPs and MQPs and lifelong learning. In addition to this, the committee and guests discussed the possibility of a portfolio, especially in terms of capturing GPS applied engineering principles. However, the point was made that portfolios were time consuming (needing four years to amass by the students and taking substantial assessment time from faculty), and that without a requirement, the quality might not give meaningful data that couldn't be captured in other ways.

The meeting adjourned at 11:56 am.

Respectfully submitted, J deWinter, chair and secretary