

ECE Curriculum Committee Meeting

Wednesday, November 9th, 2022

Attending: Chen, Fazel, Johnson, Kirschen, Makhsous, Overly, Swanson, Sykes, Wilson

Agenda:

1. Annual ABET Review (Chen)

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([See Slides](#))

Chen presented the annual review of the departments undergraduate program as pertains to the requirements and policies required by the Accreditation Board for Engineering and Technology (ABET) accreditation process.

- [See slides](#) for information covered in the report.
- While achievement levels of assessed ABET outcomes remained at above 75% in all 7 criteria for the '20-'21 academic year, 3 criteria fell below the desired 75% in the '21-'22 academic year: 1-Problems, 2-Design, 7-Learning. Complicating true evaluation in those areas was a large drop-off in compliance in submissions of end of course reports, creating an absence of data and thus lowering reliability of the combined assessment information.
 - Compliance rates of previous years:
 - '18-'19: 85% (ABET review year)
 - '19-'20: 82%
 - '20-'21: 55%
 - '21-'22: 51%
- Referring to the previous ABET assessment's finding that the ECE program was deficient in the "use and/or consideration of standards" in student work, particularly in regards to final capstone reports. Chen noted that the deficiency still remains an issue, but also that our online End of Course reporting system might benefit from adding a question, for capstone courses, asking in what way students addressed the use of standards in their projects. (Overly has emailed ECE IT to ask if it would be possible to add such a question. As of this writing, no there has been no response.)
- Report conclusions (quoted directly from report):
 - Concentration summary shows consistency, but data is spotty
 - Most concentrations show satisfactory outcomes (>75% competent or exemplary)
 - Student outcomes have decreased slightly: outcome 1 (Problems) fell further, and outcomes 2 (Design) and 7 (Learning) are now barely below satisfactory
 - Poor return rate on assessments gives low confidence in results– Instructor compliance has dropped even further: only 51% of assigned assessments were completed
 - Lack of assessment data from the Entrepreneurial Capstone (two years in a row) is a problem because more than half of the students take this option– The inclusion of engineering standards and multiple realistic constraints still needs to be improved in several capstone courses
 - More capstone final project reports are needed to properly track this

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Continuing Discussion

In response to the poor compliance rate of End of Course reports and its impact on collecting the data needed for the ABET accreditation process, the committee entered into an open discussion on how the process could be changed to increase compliance levels:

- Is it possible to separate ABET assessments from the End of Course (EOC) reports?
 - Separation could make assessments easier to complete and increase compliance.
 - Use of provided rubrics might also help, and make it easier for TAs to assist in the assessments.
 - Possible negative side-effect could be that EOC report compliance falls off further. EOC reports are an important part of the Continuous Improvement Process (CIP) we have in place, which is also required and reviewed by ABET.
- Shorter and more streamlined EOC reports was an idea supported by many committee members.
 - Would it be possible to make most questions use a scale, much like the course evaluations sent out to students at the end of each quarter?
 - After multiple choice questions, a text field could be provided for "Other suggestions or comments."
- Makhous and Wilson will meet to explore possible changes to the system and report back to the committee.
- Addendum: Rather than one EOC, but rather a few questions to track every few weeks during the quarter?