ECE Undergraduate Core Committee Meeting Tuesday, November 5th, 2024

Attending: Arabshahi, Chen, Dela Cruz, Kaushansky, Makhsous, Overly, Roy, Swanson, Van Fossen

Minutes of Oct. 22nd, 2024: Approved

Agenda:

- 1. Update on Discussions Surrounding EE 201, EE 241, and EE 242
- 2. Review of the Program Educational Objectives
- 3. Proposal to add EE 233: Circuit Theory to the list of required Core course for the BSECE degree
- 4. Changes to End of Quarter Reports (EOQs)

Update on Discussions Surrounding EE 201, EE 241, and EE 242

Makhsous updated the committee on faculty discussions surrounding options for improvements to EE 201: Computer Hardware Skills, EE 241: Programming for Signal and Information Processing Applications, and EE 242: Signals, Systems, and Data I

- Previous discussion regarding the possibility of decoupling EE 241 from EE 242 has been ongoing and part of previous committee discussions.
- If decoupled, one option is to combine EE 201 and EE 241 into a "Computer Skills" course which would continue to hold the needed Python component needed for EE 242, while also providing Python content for many other courses in the curriculum
- Both EE 201 and EE 241 are TA-intensive, and combining may offer some improvement in the teaching resources needed
- Another option to create a more robust standalone Python course, which would then become a prerequisite for EE 242
- Makhsous is still seeking feedback, especially from Ostendorf who was instrumental in the creation of the EE 235/341 restructuring into EE 241/242/342
- Will update the committee further as more information is available.

Review of the Program Educational Objectives

As part of the annual review for the ABET accreditation, Chen presented the Program Educational Objectives (PEO) and asked the committee members for any changes or feedback we need to make for the BSECE degrees.

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- Regular review is a requirement for ABET accreditation
- Chen will be reaching out to various stakeholder groups for feedback
 - o Students
 - o Faculty
 - o Advisory Committee
 - o Committees
- Reviewed current PEOs (see slides)
- Will be sending out feedback form to members of both committees, and request all members to fill it out and submit it
- Chen and Overly will send out feedback form for current PEO process to faculty
 - o Due in 2 weeks (Nov. 15th)

Proposal to add EE 233: Circuit Theory to the list of required Core course for the BSECE degree

Continuing previous discussions from both The Core committee and The Electives committee on the important learning material from EE 233: Circuit Theory for all undergraduate students, the committee took up a motion to add this to the BSECE core listing.

- Most faculty members feel that the material taught in EE 233 are foundational to upper division courses
- A discussion arose about the question of changing the number of this course from EE 233 to EE 315, but the committee decided that this is a subject that can be updated at a later time.
- A side discussion was brought up on the preparedness of students' mathematical skills
 - Roy raised the concern of students lacking experience with rigorous math and complex number skills may struggle if this course is the first time they see this.
 - The committee assessed that students would have been exposed to complex math prior to EE 233, but EE 233 may need to have a refresher or extra tutoring sessions to assist if needed.

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- Motion to approve the addition of EE 233: Circuit Theory to the BSECE required
 Core courses listing for BSECE students entering the program starting in
 Autumn 2025
 - Motion approved (no dissents)

Changes to the End of Quarter Report

Makhsous presented changes to the End of Quarter (EOQ) Reporting System.

- Slides presented <Link>
- Objective is to refine the submission process
 - Desire to improve questions
 - o Will hopefully make submission easier for faculty
 - o Will provide data that can be used by committees in review of courses
 - No changes have been made to the ABET section
- Will be discussed further at a subsequent committee meeting