

ECE Curriculum Committee Meeting

Monday, May 4th, 2022

Attendance Arabshahi, Elberier, Hauck, Kirschen, Moritz, Overly, Riskin, Swanson, Sykes, Vardhan, Wilson

Minutes from meeting of April 13th, 2022: Approved

Agenda:

1. Future of Power Electronics and Drives concentration (Swanson)
2. Request for approval for minor changes to EE 398 (Riskin)
3. Proposal for revisions to EE 468 and for 2 new Communications/Security courses (Arabshahi)
4. Preparation discussion for End of Year process for annual concentration reviews (Arabshahi)

Future of Power Electronics and Drives concentration

With the recent resignation of Prof. Brian Johnson, the committee discussed the future of the Power Electronics and Drives concentration. The EE 452/458/453 Power Electronics series was taught wholly by Johnson or his graduate students. With Johnson's departure, the course series does not have a lead faculty member, and there is no one on the faculty able to fill that role.

- Kirschen mentioned the department might be able to find someone to teach EE 452 for autumn, but EE 458 and EE 453 would be extremely difficult. EE 452 is also required for the Sustainable Energy Systems concentration. When asked if it were possible to waive EE 452 for Sustainable students for the upcoming year, Kirschen answered that it was possible, and that EE 452 is extremely helpful for Sustainable students in rounding out their knowledge, but not essential.
- Kirschen held the opinion that the department didn't have much choice except to remove the Power Electronics and Drives concentration for the year.
- Swanson concurred, noting that concentrations will be completely removed in two years now that the current BSEE degree will be replaced by the BSECE degree coming online for Autumn 2022.
- Sykes informed the committee that there were other options for the students who were planning on Power Electronics, notably that the switch to Sustainable would be straightforward.
- Overly raised the issue of time, with registration starting the following Friday and students needing to know right away how to plan their schedules for next year. If there is a likelihood Power Electronics will not be available, students should be told that they need to plan an alternative schedule. Making them wait could lock them out of other classes they would need to finish another concentration, affecting their time to graduation.
- Swanson concurred.
- Swanson motioned to retire the concentration effective immediately.

Motion to retire the Power Electronics and Drives concentration effective immediately: Approved

– No Dissents

Request for approval for minor changes to EE 398

[\(MCD\)](#)

Having recently taken over as course coordinator for EE 398: Introduction to Professional Issues, Riskin made some slight revisions to the MCD and presented the changes to the committee for approval. Riskin

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has been teaching the course for the entire 2021-2022 academic year and adjusted the MCD to reflect the changes that have occurred since it was last revised.

- In reviewing the ABET outcomes listed, Kirschen started his opinion that Outcome 3: Communication could be raised from low to medium. After a discussion of how to assess the outcome within the current course structure, Arabshahi stated that it could be reflected in the final paper for the quarter. Risking agreed to follow that advice.

Motion to approve the revised MCD for EE 398: Approve – No Dissents

Proposal for revisions to EE 468 and two new Communications/Security courses

([MCDs](#))

Arabshahi brought 3 courses for review by the committee. EE 468 is currently in the catalog but has not yet been taught. Changes were proposed for this course. There were also two other 400 level courses that were new course proposals with a request for approval by the committee. These courses represent how the “Cyber Pathway” would look in the new curriculum.

- Regarding EE 468, Hauck asked if the course would actually be taught, as it was created for a previously proposed version of the BSECE degree. Arabshahi said they would like to teach the course.
- EE 468 title would be changed to “Software and Embedded Systems.” The current title is “Computer, Network, and Embedded Security.”
- Moritz asked if the course would still cover network security, which he believed was an important area to cover.
- Arabshahi pointed out that one of the new courses would focus on network security.
- Arabshahi presented the [MCDs](#) for the courses.
- The two new 400 level courses being proposed are:
 - “Network and Web Security”
 - “Machine Learning for Cyber Security”
- The machine learning course is based off a similar PMP course Poovendran has been offering.

Motion to approve changes to EE 468 and two new 4xx communications/security courses:

Approved – Unanimous

Discussion for End of Year process for annual concentration reviews

With the end of the spring quarter in view, Arabshahi informed the committee it was time for the annual ABET reviews of the concentrations. These need to be completed by the end of the year.