

# ECE Curriculum Committee Meeting

## Monday, April 13th, 2022

**Attendance** Arabshahi, Elberier, Kirschen, Moritz, Overly, Riskin, Swanson, Sykes. Thomas, Vardhan, Wilson

**Minutes from meeting of April 6th, 2022: Approved**

### **Agenda:**

1. Proposal for BSECE Data Science Degree Option (Riskin)
2. Discussion: Future of EE 393 and Advanced Technical Writing Requirement (Arabshahi)

### **Proposal for BSECE Data Science Degree Option**

([Proposal](#))

With the support of the UW eScience Institute, many departments have started offering Data Science degree options in their programs. As ECE has such a strong group of faculty involved in research in the domain, the Data Science group in the department sees a Data Science Option as an important addition to our undergraduate program. At the October 26<sup>th</sup>, 2021 ECE Curriculum Committee meeting ([minutes](#)), Riskin presented an initial proposition for a new Data Science degree option with a request for feedback. The Data Science Group has since constructed a proposal for a Data Science Option (DSO) to be created for the new BSECE degree which is due to become effective starting Autumn 2022. Since the current BSEE degree is due to cease admission of new students after the Autumn 2024 admission cycle, creating a degree option for the BSEE degree did not make sense as questions would likely be raised by the university as to why a new credential was being proposed for a degree credential that will be retired. (See proposal for details)

- A few committee members expressed concern that the courses listed in the proposal may not have the needed capacity to accommodate all students who would need to take them for the new DSO degree credential. The DSO may want to provide more course options to ensure students are able to have the flexibility to fit all requirements into their schedules and graduate on time.
  - Most requirements that list EE courses as an option are likely easier since the department controls enrollment levels, but courses outside our department may not have the needed capacity. The “Societal Implications of Data Science” requirement does not have an EE course option, which could be more problematic.
- Moritz asked if there were an ethics course in the list of requirements, stating the importance of ethics in the DS field. Riskin noted the inclusion of the “Societal Implications of Data Science” requirement with a choice of 2 courses students can take to fulfill the requirement. These courses discuss ethics.
- Overly went over the process and probable timeline for approval of the new option. Submission of the proposal would be drafted and submitted during the spring quarter. A full program proposal process is required, and the option would likely be available for an Autumn 2023 effective date.

**Motion to approve the BSECE Data Science degree option and move forward with submission of proposal to the UW program approval process: Approved – No dissents.**

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### **Discussion: Future of EE 393 and Advanced Technical Writing Requirement**

([Slides](#))

With the reduced offering of ENGR 333 from the college, the need to provide space for approximately 90 to 100 students per quarter (excluding summer), and the departure of Penny Hinke as the instructor for current offerings of EE 393, Arabshahi opened a discussion on the future of the advanced technical writing requirement for the BSEE and BSECE degrees. The course is still on the autumn 2022 schedule, though no instructor has been determined. To accommodate the 90 students for the quarter, the structure has been changed to a main lecture with breakout quiz sections.

- ABET does not require a “writing” component, and is focused on a general “Communication” outcome. Thus the writing requirement could be de-coupled from the ABET requirement. The Communication outcome could be covered in non-writing courses, with the capstones largely providing coverage for the outcome already. The component could be strengthened in all capstone courses.
- If a decision is made in the future to drop EE 393 from the department’s course offerings, we would need to find another way for students to fulfill the advanced technical writing requirements. One possibility would be to open up the requirement to be satisfied by a 3xx or 4xx writing course offered at the university.
  - Sykes raised the issue that most 3xx and 4xx courses will have prerequisites our students have not taken.
  - Swanson suggested that this could work in conjunction with continued offerings of EE 393 by the department, but at reduced scale.
  - Identifying the available courses could be difficult, though Sykes mentioned that students will often bring alternatives to advising, helping to identify classes.
- Another alternative presented by Wilson was the creation of a “Writing Studio.” This would be a way for students to add a “W” to any course, with the writing studio adding a credit to the course, in essence. The writing studio could be run by a TA who would work with students on revising the additional work as needed for a “W” designation.
  - Overly raised the issue of scale for such a process. With the need to move 250 - 270 students per year through the requirement, would a TA be able to handle the volume of work required, especially with most of the work coming at the end of each quarter?
  - Moritz stated that some instructors could provide the “W” option for their courses, as allowed by the university if a student and instructor can agree on what extra work is necessary, but it would need to be a relatively small number of students in each class.
  - Elberier mentioned that he has received a lot of writing experience through the writing of lab reports and supported the idea of a writing studio for providing a way to get the “W” credit while working on lab reports and other class writing assignments.
  - Implications are that a lot of students might gravitate toward the writing studio option.

**Discussion tabled with Wilson and Elberier agreeing to meet to begin coming up with a structure based on the writing studio concept.**