# ECE Undergraduate Electives Committee Meeting Monday, May 13th, 2024

Attending: Arabshahi, Gadre, Hwang, Kirschen, Lister, Overly, Swanson, Thomas

Minutes of April 15th, 2024: APPROVED

### Agenda:

- 1. Energy Group Undergraduate Courses Review (Kirschen)
- 2. SIP/Data Science Group Undergraduate Courses Review (Hwang)

### **Energy Group Undergraduate Courses Review (Kirschen)**

Kirschen presented a review of undergraduate offerings of courses under the Energy curriculum group: (See Slides)

- EE 351 is used as a prerequisite for all 400-level courses offered by the group.
  - Enrollment in Spring 2024 is at 66 students which is pushing the limit, and another offering may be needed during the year.
  - o Limited by need to keep lab groups smaller in the ECE 053 Power Lab.
- End of course reports:
  - o One missing from a visiting instructor, and we will not be able to get it.
  - Only other missing report is for this past Winter 2024 offering of EE 458 which the instructor is working on submitting soon.
- ABET Outcomes:
  - Satisfactory.
  - Difficulty entering assessments for the 2024 offering of EE 454 into the report tool, so unavailable.
    - Overly suggested reaching out to ABET Faculty Coordinator Tai Chen who should be able to either get the tool re-opened, or collect the information for the ABET report on his own.
- Comments:
  - EE 233 is no longer required for EE 351 and the prerequisite was lowered to E 215.
    Material needed from EE 233 is minimal, and they teach that material at the start of EE 351 to compensate.

## SIP/Data Science Group Undergraduate Courses Review (Hwang)

#### (See Slides)

Hwang presented a review of undergraduate offerings of courses under the Signal & Image Processing/Data Science curriculum group:

- Some issues with using EE 242 as a prerequisite in the 400-level courses as discrete series material may not be covered as well as expected.
  - Both EE 440 and EE 442 show EE 342 as a prerequisite, but students are told EE 242 should be sufficient.
- Re-evaluation of prerequisites may be needed.

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- EE 342 has dropping enrollment numbers.
  - Only listed as a prerequisite for EE 440 and EE 442, and not stated to be necessary.
    - EE 440 will likely no longer be offered with the retirement of its lone instructor,
      Ming Ting Sun.
    - EE 342 is at risk of fading out.
    - Might lower offerings to just once per year.
- Enrollments:
  - Strong in all courses aside from EE 342
- Course Evaluations:
  - Response numbers are very low in most offerings and need to find a way to incentivize getting students to return them.
  - Low response rates make results an unreliable indicator of student sentiment.
- Comments:
  - o Gadre raised the idea of pushing back digital content from EE 242 into EE 342
    - Many of the faculty teaching EE 242 agree with this idea.
    - Overly mentioned this was the original structure for the series, but it was revised to move some discrete series material into the core course so all students would at least be exposed to the concepts.
- Hiring:
  - Almost all recent hiring for the group has been data science/machine learning oriented, with no recent hiring in the traditional signal processing area. Retirements over the next few years are likely to create a situation where there are no faculty in the area of signal processing.