ECE Committee Meeting – Minutes

November 22, 2022

12:30 – 1:30 p.m.

CP 303 / Zoom

<u>Attendance</u>

Voting Faculty: Orlando Baiocchi, Vahid Dargahi, Mohammed Jasim, Max Laddomada, Thillainathan Logenthiran, Mike McCourt, Jenny Sheng, Nafiul Siddique, Matthew Tolentino*

=Absent for vote

Absent: Debasis Dawn

Non-Voting Faculty and Staff: Chris Barrett, Bob Landowski, Raj Katti, Beth Jeffrey, Don McLane, Rachel Crook

<u>Items</u>

1) **Approve the minutes of our ECE Curriculum meeting held on October 13, 2022**

   Moved: M. McCourt

   Seconded: T. Logenthiran

   Eligible to vote: 10 (1 voting faculty absent for vote, 1 voting faculty absent from meeting)

   8 in favor, 0 against, 0 abstain

2) **Discuss questions and suggested external reviewers for our upcoming 10-year review**

The form drafted by the Dean was shared with the committee. The Dean explained the purpose of the 10-year review, which aims to investigate the quality of our programs and the overall climate for students, faculty, and staff, which all contributes to the academic vitality of our programs. We are allowed to ask additional questions from this committee for the reviewers – the drafted questions for the reviewers were shared, and the committee was asked to provide input. These questions mainly

relate to growth, balancing teaching and resources, marketing, and student success. All suggestions for these questions should be sent to the Dean directly. The committee then looked at the list of external reviewers to make sure there were no conflicts of interest (there were none).

The Dean is hoping to send this form after the break to the Graduate School. The committee was reminded that the Masters program will also have to complete an assessment plan soon.

3) Approve syllabus for new course on Machine Learning for ECE students (TEE 450, now TCES 450)

The Chair shared the drafted syllabus, created by Anderson Nascimento – some changes were to the document to ensure that the "student outcomes" wording matches other ECE syllabi (and to match ABET's preferred wording, eliminating non-active verbs). This class is a 5-credit elective course for ECE students, but can also be taken by anyone (including non-ECE majors) who have satisfied the prerequisite courses requirement. The pre-reqs are: TMATH 207, 208; TCSS 143; TCES 380. The committee agreed that if students haven't taken TCES 380, they should also be able to take TMATH 390 (Probability and Statistics) as a pre-req for this course. The Chair added TMATH 390 to the list of pre-reqs for this course.

The committee agreed to change the course from "Introduction to Machine Learning for Engineers" to "Machine Learning for Engineers," with the abbreviated course title being "ENGR Machine Learning."

> **Motion: to approve the syllabus for TCES 450**
>
> **Moved: T. Logenthiran**
>
> **Seconded: J. Sheng**
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> *Eligible to vote: 10 (1 voting faculty absent for vote, 1 voting faculty absent from meeting)*
>
> **8 in favor, 0 against, 0 abstain**

4) Revise prerequisites to be admitted to our EE and CENGR majors

The Chair previously asked the committee to look at the prerequisites for their courses to make sure that they are still relevant to the information required to succeed int heir courses. Any prerequisite changes need to be made soon to make sure that they can be used for the upcoming cohort. The advisor reminded the committee that technically, we have to give community colleges 2 years for any admissions updates. We can make things easier for admission, but we can't make things more complicated without giving community colleges a warning. The Chair encouraged the committee to send

an email with all prerequisites for each course taught by each committee member – we will create a mass document and vote on changes in our next meeting.

5) Feedback on SET webpages for EE and CENGR programs; ECE recruitment efforts

We've included a link to a new page "ECE Faculty" – this will help students know which SET Faculty teach ECE courses, and introduces them to everyone's specific research areas and interests.

For recruitment, we've been attending some pre-major courses to talk about our ECE majors. Prospective students from Highline will be visiting on 11/30 (about 30 students expected to attend this visit) – we will present students with general info about admissions requirements and then split by majors. In these smaller groups, we will discuss ECE specific info and may give a tour of our labs. The Chair will share recruitment plan slides with everyone.

6) Discuss and approve the latest Computer Engineering PEOs approved by our External Advisory Board in May 2022:

The CES Program Educational Objectives are as follows.

Within three to five years of graduation from the ~~CES~~ Computer Engineering program, it is expected that many graduates will have:

1) Developed a product or process by applying their knowledge of mathematics, computing, systems and development tools, and product life cycle management.
2) Applied the principles of mutual respect, safety, quality, integrity and inclusion as a member of a multi-disciplinary development team and undertaken a leadership role when appropriate,
3) ~~Taken graduate courses or continuing education classes to improve their skills and abilities,~~
Improved their skills and abilities by taking graduate courses, professional development training, or voluntary experiential learning opportunities.
4) Made positive contributions to their community and society by applying skills and abilities learned during their undergraduate program in computer engineering ~~and systems,~~
5) Made decisions related to their work that demonstrate an understanding of the importance of being an ethical engineering professional,
6) Applied their technical communication skills to effectively promote their ideas, goals, or products.

Since the objectives are fairly broad, it is not expected that every graduate will achieve every objective.

This is the way CENGR PEOs are published on our SET webpage:

The Program Educational Objectives of our Computer Engineering program are as follows:

Within three to five years of graduation from the Computer Engineering program, it is expected that many graduates will have:

1. Developed a product or process by applying their knowledge of mathematics, computing, systems and development tools, and product life-cycle management.
2. Applied the principles of mutual respect, safety, quality, integrity and inclusion as a member of a multi-disciplinary development team and undertaken a leadership role when appropriate.
3. Improved their skills and abilities by taking graduate courses, professional development training, or voluntary experiential learning opportunities.
4. Made positive contributions to their community and society by applying skills and abilities learned during their undergraduate program in computer engineering.
5. Made decisions related to their work that demonstrate an understanding of the importance of being an ethical engineering professional.
6. Applied their technical communication skills to effectively promote their ideas, goals, or products.

Since the objectives are fairly broad, it is not expected that every graduate will achieve every objective.

Motion: to approve the updated Computer Engineering PEOs approved by the External Advisory Board in May 2022

Moved: M. Jasim

Seconded: M. McCourt

Eligible to vote: 10 (1 voting faculty member absent from meeting, 3 voting faculty members absent for this vote, 6 total in attendance for this vote)

5 in favor, 0 against, 1 abstain

7) Updates from our ECE advisor

This item was not discussed in this meeting.

8) Emag issue

This item was not discussed in this meeting.

9) Old business

This item was not discussed in this meeting.

10) New business

This item was not discussed in this meeting.