

ECE Curriculum Committee Meeting

Monday, Oct 6th, 2025

Attending: Arabshahi, Burden, Bushnell, Chen, Dela Cruz, Eley, Hauck, Kirschen, Lim, Mishra, Moritz, Reyes, Rudell, Sallows, Shlizerman, Swanson, Thomas

Absent: Huberman

Agenda:

1. Update EE 445 prerequisites
2. Update EE 585 Course Title
3. Update Proposal for EE 570 and its Joint Undergrad Section

Meeting started by editing and approving minutes from the 9/29/2025 committee meeting.

Update EE 445 Prerequisites

Fazel and Ratliff had proposed a change to the prerequisites for EE 445: Fundamentals of Optimization and Machine Learning, aiming to better align the course with its required background by replacing all current EE 445 prerequisites with only EE 345: Introduction to Foundations of Machine Learning as the sole prerequisite.

Arabshahi explained that the introductory material previously covered in EE 445 has been moved to EE 345, establishing a clear sequence between the two courses. EE 345 now includes all the foundational content necessary for students to succeed in EE 445.

Motion to approve removing all current EE 445 prerequisites and replacing them with just EE 345: Motion approved

Update EE 585 Course Title

Burden presented a proposal to change the title EE 585, a graduate-level course jointly offered with the Aeronautics & Astronautics (AA) and Mechanical Engineering (ME) departments. He noted that the current course title no longer reflects the content or activities students engage in and proposed a new name that better captures relevant topics and better communicates the course's value to students. The goal is to implement the change by Spring 2026.

Kirschen raised the point that the proposal should not be submitted as a modification to the existing EE 585 course based on significant changes to course content. Instead, it should be proposed as an entirely new course, which would require assigning a new course number. Arabshahi supported this view, emphasizing that the extent of the proposed changes goes

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beyond what can reasonably be considered a course update. Lim noted that the course has been taught relatively recently (last offered in Spring 2021 by Chizeck).

Hauck asked for clarification on the nature of the proposed changes. Burden responded that approximately 30% of the content would remain from the original course, while 70% would be new. Moritz suggested that a more descriptive and future-proof title might help communicate the course's intent, possibly by adding a few words to clarify expectations for students.

Shlizerman inquired about prerequisites, asking whether they would change under the new course proposal. It was clarified that at the graduate level, prerequisites are typically not enforced, and recommended background courses are usually listed instead. Shlizerman also asked whether the partnering departments still wish to co-teach the course, to which the answer was yes.

Swanson asked for clarification on Hauck's concern regarding student preparation. She distinguished between formal prerequisites entered into the system and recommended background, suggesting that the latter might be more appropriate in this case. This approach could ensure students are aware of the necessary background without creating rigid enrollment barriers.

The discussion concluded with agreement that the most viable path forward is to retire the existing EE 585 and propose a new, updated course with a new title in its place.

Burden and Lim will collaborate on the next steps, coordinate with the other departments involved, see if the same course number(s) can be kept, or new ones may be needed, and reconnect with the committee.

Update Proposal for EE 570 and its Joint Undergrad Section

Moazeni presented to the committee a proposal to approve the undergraduate section of the previously approved graduate course, EE 570: Electronic-Photonic Integrated Systems, which itself is currently being offered as EE 538: Topics in Electronic Circuit Design.

Hauck raised concern regarding the use of "class participation" in grading. He noted that if participation accounts for more than 10% of the grade, it must be clearly defined and measurable. Moritz mentioned that he has a breakdown available that provides a structured

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way to measure participation. Kirschen suggested omitting participation entirely from the grading scheme if it's difficult to assess fairly, or capping it at 10% of the grade.

Reyes asked whether the homework assignments are the same for both undergraduate and graduate students. Moazeni confirmed they are. Kirschen pointed out this could be problematic and recommended explicitly stating how the homework requirements differ between the two levels. The same applies to the project component of the course, where clear distinctions between undergraduate and graduate expectations must be documented in the MCD.

Regarding prerequisites, Thomas asked whether EE 331 or EE 332 or both should be required. Moazeni clarified that incorporating both EE 331 *and* EE 332 as prerequisites would be too complicated. There was further discussion on whether EE 332 is truly necessary or if a different prerequisite structure would be more appropriate. The committee agreed to keep the prerequisite structure as outlined in the MCD: EE 331 *or* EE 332, pending any future changes in these courses. Concern is that if students opt for only EE 331 as the prerequisite (itself requiring EE 215 and EE 280), students will no longer be exposed to material in EE 233.

A related side discussion arose regarding potential changes to EE 331 and EE 332, especially as they relate to the tapeout sequences overseen by Rudell and Li. There may be future changes to these two courses to ensure necessary topics are covered for courses down the line. Rudell will explore this with Li and also whether combining the two tapeout capstones into a single capstone experience will be beneficial for students.

The next steps include revising the MCD based on feedback about distinguishing undergraduate and graduate expectations more clearly. The committee agreed to move forward with an email vote for approval. If approved, the course will be effective in Spring 2026.