

Memo: ECE Undergraduate Electives Committee

October 18th, 2024

Proposal to add EE 331 and EE 351 as course prerequisites for EE 452/532: Power Electronics Design

Justification

Starting in Autumn 2023, Professor Jungwon Choi took over the teaching of EE 452/532: Power Electronics Design, a course revised by a faculty no longer with the department, Professor Brian Johnson. Just before his departure, Professor Johnson revised the prerequisite for the course in an attempt to shorten the prerequisite chain in response for faculty to examine the length of prerequisite chains in the hope of making courses more accessible. Professor Johnson left the department before teaching the course with the reduced requirements.

Professor Choi finds the reduced prerequisite requirements insufficient for the way she teaches the course and has found students unprepared for the material. To address the prerequisite issue and provide students with a better chance of success and a stronger understanding of the material both within the class and in industry, Professor Choi proposes the reimplementation of the previous prerequisites for the course - EE 331: Devices & Circuits I, and EE 351: Energy Systems.

Professor Choi's revised MCD, with updated prerequisites, has been reviewed by the Energy curriculum group and has strong support of the group chair, Professor Daniel Kirschen.