PURDUE UNIVERSITY | Elmore Family School of Electrical and Computer Engineering

Engineering Faculty Document No. EFD 10-24
February 29, 2024

Memorandum

To: The College of Engineering Faculty

From: The Elmore Family School of Electrical and Computer Engineering

Re: revision to the Electric Power and Energy Systems Concentration

The faculty of the Elmore Family School of Electrical and Computer Engineering has approved the following revisions of the Electric Power and Energy Systems Concentration from the College of Engineering. This action is now submitted to the Engineering Faculty with a recommendation for approval.

FROM:

Must complete a minimum of 3 courses totaling 9 credits from the Elective courses below.

ECE 32100: Electromechanical Motion Devices [3 credits] **OR**

ECE 51012: Electromechanics [3 credits]

ECE 31032: Power Systems Engineering [3 credits]

ECE 51018: Hybrid Electric Vehicles [3 credits]

TO:

Must complete a minimum of 3 courses totaling 9 credits from the Elective courses below.

ECE 32100: Electromechanical Motion Devices [3 credits] **OR**

ECE 51012: Electromechanics [3 credits]

ECE 31032: Power Systems Engineering [3 credits]

ECE 31033: Power Electronics [3 credits]

ECE 51018: Hybrid Electric Vehicles [3 credits]

ECE 51032: Computational Methods for Power Systems Analysis [3 credits]

ELMORE FAMILY SCHOOL OF ELECTRICAL AND COMPUTER ENGINEERING
Materials Sciences and Electrical Engineering Building, Room 140
501 Northwestern Avenue, West Lafayette, IN 47907
Office: 765-494-3390

ECE 39595/49595/59500 – Selected Topics in Electrical Engineering Qualifying Titles:

ECE 59500: Power Distribution System Analysis [3 credits]

With Approval of the Associate Head of Undergraduate Programs or Associate Head of Teaching and Learning, can include up to 3 hours of:

- VIP 37920 [2 credits]
- VIP 47920 [2 credits]
- ECE 49600 [1-3 credits]

Reason: The area added a few courses as well as experiential options for the concentration.

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Mithuna Thottethodi
Associate Head of Teaching and Learning
Professor of Electrical and Computer Engineering

Electric Power and Energy Systems Concentration for Electrical Engineering

The EPES Concentration is for BSEE students who plan to pursue careers in the power industry (e.g., electric utilities, smart grid software/hardware industry, grid operators, power equipment vendors, automotive, heavy equipment, aircraft, and marine industries). It focuses on areas of electric power and energy systems, and in particular elements of power engineering, power electronics and drives, and electric machinery.

Electives (9 credits):
Must complete a minimum of 9 credits from the Elective courses below. VIP (Vertically Integrated Projects) and ECE 49600 Undergraduate Projects may be taken for a maximum of 3 credits toward the concentration upon approval of the Associate Head of Undergraduate Programs or Associate Head of Teaching and Learning.

Must complete a minimum of 3 courses totaling 9 credits from the Elective courses below.

ECE 32100: Electromechanical Motion Devices [3 credits] **OR**
ECE 51012: Electromechanics [3 credits]
ECE 31032: Power Systems Engineering [3 credits]
ECE 31033: Power Electronics [3 credits]
ECE 51018: Hybrid Electric Vehicles [3 credits]
ECE 51032: Computational Methods for Power Systems Analysis [3 credits]

ECE 39595/49595/59500 – Selected Topics in Electrical Engineering Qualifying Titles:
ECE 59500: Power Distribution System Analysis [3 credits]

With Approval of the Associate Head of Undergraduate Programs or Associate Head of Teaching and Learning, can include up to 3 hours of:
•VIP 37920 [2 credits]
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