

# New Curriculum or Curricular Change EFD Template



College of Engineering

Engineering Faculty Document

No.: 22-25

May 1, 2024

**TO:** The Engineering Faculty

**FROM:** The Faculty of the Elmore Family School of Electrical and Computer Engineering

**RE:** New Engineering Concentration

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

**TITLE:**

Power and Energy Systems (PES)

**DESCRIPTION:**

This concentration applies to these programs/major:

Programs:

- ECE-MSECE-OL
- ECE-MSECE

Major:

- ECEN (Electrical & Computer Engr)

To earn this concentration, students will complete the following coursework:

**Required:** ECE 61000, Energy Conversion, 3 credits

6 additional credits from this list:

Course #	Course name	Credits
ECE 51012	Electromechanics	3
ECE 51018	Hybrid Electric Vehicles	3
ECE 51032	Computational Methods for Power System Analysis	3
ECE 61010	Time Domain Simulation and Optimization for Design	1
ECE 61014	Electromagnetic and Electromechanical Component Design	3
ECE 61016	Power Electronic Converters and Systems	3
ECE 61020	Operation of Modern Power Systems	3
ECE 62500	Advanced Analysis of Electromechanical Systems	3

ECE 69500	Power Systems Distribution Analysis	3
-----------	-------------------------------------	---

**RATIONALE:**

Power and energy systems is one of the focus or research areas in ECE. Approximately 10% of our ECE graduate students have this as their primary area of interest. This concentration allows students to fine-tune their MSECE credential.



---

Head/Director of the Elmore Family School of Electrical and Computer Engineering

Link to Curriculog entry: <https://purdue.curriculog.com/proposal:28371/form>