

New Curriculum or Curricular Change EFD Template



College of Engineering

Engineering Faculty Document

No.: 17-25

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:

Automatic Control (AC)

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 60200, Lumped System Theory, 3 credits

6 additional credits from this list:

Course #	Title	Credits
ECE 56900	Introduction to Robotic Systems	3
ECE 58000	Optimization Methods for Systems And Control	3
ECE 59500	Introduction to Game Theory	3
ECE 59500	Reinforcement Learning: Theory and Algorithms	3
ECE 60270	Structure and Dynamics of Large-Scale Networks	3
ECE 60281	Introduction to Mathematical Fundamentals for Systems & Control Theory	1
ECE 60282	Epidemic Processes	1

ECE 60283	Networked Epidemic Processes	1
ECE 67500	Introduction to Analysis of Non-Linear Systems	3
ECE 68000	Modern Automatic Control	3
ECE 69500	Hybrid Systems: Theory and Applications	3

RATIONALE:

Automatic control (AC) is one of the focus or research areas in ECE. Approximately 13% 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:28370/form>