

Curricular Change EFD Template



College of Engineering

Engineering Faculty Document

No.: 77-25

November 21, 2024

TO: The Engineering Faculty
FROM: The Faculty of the Agricultural and Biological Engineering Department
RE: Engineering Concentration Modification

The Faculty of the department has approved the following edits to a Concentration from the College of Engineering. This action is now submitted to the Engineering Faculty with a recommendation for approval.

TITLE:

Change name from "Fluid Power" to "Fluid Power and Motion Control"

DESCRIPTION:

- The Graduate School does not allow a 9-credit concentration to include any courses below the 500-600-levels. We had to change the required credits to 12 in order to continue to use ABE 43500, which is foundational to the concentration.

Most recent changes:

- Remove classes no longer being offered
- Edit courses to reflect those that now have permanent numbers
- Add more courses to "Group B" list for flexibility and broader offerings

RATIONALE:

The Fluid Power Concentration has been in existence for some time and needs to accurately reflect course changes that have occurred in recent years. The selections offered in Group B offer more variety and we have attempted to clarify the language and instructions for obtaining the concentration.

A handwritten signature in black ink, appearing to read 'Nathan Smith', with a long horizontal line extending to the right.

Head of the Department

Link to Curriculog entry:

Plan of study:

Concentration: Fluid Power and Motion Control

To fulfill the requirements for the Fluid Power and Motion Control concentration, students must complete [at least twelve](#) credit hours from the courses listed below (Group A or B), [at least six](#) of which must be from Group A.

Group A focuses on fluid power theories and applications, while Group B includes courses essential for the design, modeling, optimization, and control of fluid power systems.

Group A - Fluid Power Theories and Applications

ABE 43500	Hydraulic Control Systems for Mobile Equipment
ABE 53500 / ME 53500	Design and Modeling of Fluid Power System
ME 55600	Lubrication, Friction, & Wear

Group B - Supporting Topics

ABE 53100	Instrumentation and Data Acquisition
ABE 54500	Design of Off-Highway Vehicles
ECE 51000	Hybrid Electric Vehicles
ECE 61000	Electromagnetic and Electromechanical Component Design
ME 57500	Theory and Design of Control Systems
ME 61400	Computational Fluid Dynamics