ENGR 570: Coupled Electromechanical Systems

Syllabus
Fall Semester, 2019

Professor:	Dr. James Cale	Email:	jcale@colostate.edu
Office Hours:	By appointment	Phone:	(970) 412–0494

Prerequisites

- Working knowledge of undergraduate physics of magnetics, basic dc and ac circuit analysis. Can be fulfilled by: ECE 202 or 204 (circuit analysis, with undergraduate physics as a prerequisite)
- Assumes working knowledge of mathematics covered in an undergraduate engineering curriculum (calculus, differential equations, matrices)

Textbooks

Required: *Electromechanical Motion Devices, 2nd Edition*, P. C. Krause, Oleg Wasynczuk, Steven Pekarek, Wiley/IEEE Press, 2012, ISBN No. 978-1-118-29612-7.

Supplementary: *Power Magnetic Devices: A Multi-objective Design Approach*, S.D. Sudhoff, Wiley/IEEE Press, 2014, ISBN No. 978-1-118-48999-4.

Supplementary: *Introduction to Electrodynamics, 4th Edition*, D.J. Griffiths, Pearson Education Limited, 2014, ISBN No. 978-1-292-02142-3.

Meeting Location and Time

Engineering Building Room 202, Systems Engineering Conference Room, Fort Collins campus, Wednesday evenings, 5:15-8:00 PM (MST)

Grading Weights

Class participation:	5%
Homework:	15%
Mid-term Exam:	30%
Project Presentation:	10%
Final Project:	40%

Homework

Homeworks will be graded and will be due two weeks after distribution (dates/times will be listed on the assignment). No late homework will be accepted.

Project Reports & Presentations

This course will culminate in a final report and presentation from each student on their chosen analysis project. All final project deliverables (report, code, and slides) will be due on Dec. 15th, 2019 by 11:59 PM (MST). During the last session (Session 14) students will present their projects. No late presentations or edits to your presentation will be accepted after the due date.