Catalog Description: DC, PMAC, and induction machine testing, operation, and control. Lab.

Credits: 1       Terms Offered: Winter

Prerequisites: Corequisites: ECE 331
Courses that require this as a prerequisite: NA

Structure: 170 minute lab section, once per week.

Instructors: Ted Brekken

Course content:

- DC machine parameter estimation
- DC machine analysis and control
- PMAC machine parameter estimation
- PMAC machine analysis and control
- Induction machine parameter estimation
- Induction machine analysis and control
- Drives analysis and control

Measurable Student Learning Outcomes:
Upon completing this course, students will be able to...

1. Estimate electrical machine parameters (ABET Outcomes a, b, c, e, K)
2. Design electrical machine control systems (ABET Outcomes a, b, c, e, K)
3. Analyze electrical machine performance (ABET Outcomes a, b, c, e, K)
4. Evaluate performance of electrical machine drives (ABET Outcomes a, b, c, e, K)

Learning Resources:
- Lab manual (provided)

Evaluation of Student Performance:
- 20% Pre-lab assignments
- 80% Lab reports

Accommodations:
Accommodations are collaborative efforts between students, faculty and Disability Access Services (DAS). Students with accommodations approved through DAS are responsible for contacting the faculty member in charge of the course prior to or during the first week of the term to discuss accommodations. Students who believe they are eligible for accommodations but who have not yet obtained approval through DAS should contact DAS immediately at 541-737-4098. The University will grant students reasonable requests for religious accommodations where doing so does not conflict with reasonably necessary University goals (reasonable accommodation). The Religious Accommodation Policy document is maintained in the Office of Equity and Inclusion.
Expectations for student conduct:
In an academic community, students, faculty, and staff each have responsibility for maintaining an appropriate learning environment, whether online or in the classroom. Students, faculty, and staff have the responsibility to treat each other with understanding, dignity and respect. Disruption of teaching, administration, research, and other institutional activities is prohibited by Oregon Administrative Rule 576-015-0015 (1) and (2) and is subject to sanctions under university policies (oregonstate.edu/studentconduct/home/).

Revised: 9 May 2018