NDSU

# ECE 331: Energy Conversion - Spring 2014

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| Instructor: | Jake Glower, Room 201A |
| Office Hours: | t.b.a. |
| Text: | Electric Machines, Theory, Operation, Applications, Adjustment, and Control, 2nd Edition, |
| Author: | Charles I. Hubert |
| Corequisite: | ECE 311 (Circuits II) |

Course Description: Magnetic circuits, transformers, DC and AC rotating machines. 3 one-hour lectures, 1 two-hour laboratory.

How to Get an A or B: Keep up, read the book, do the homework. The grades in this class are often bimodal: people who did the homework themselves tend to get either an A or a B. People who did not do the homework or copied the struggle to get a D.

Grading:

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| • Tests | 1 unit each | A 90% - 100% |
| • Homework | 1 unit | B 80% - 89.9% |
| • labs | 1 unit | C 70% - 79.9% |
| • final | 1 units | D 60% - 69.9% |
| • Total | Average | E < 60% |

Course Objectives: Understand and be able to analyze systems which include

- Transformers
- Electromechanical systems acting as motors, and
- Electromechanical systems acting as generators.

Homework: Homework will be due at 4PM on the day assigned. Please turn in your homework in the boxes in the main office. Students are encouraged to work together on the homework sets, but a separate solution is required for each student. Homework turned in after the solutions are posted will not be graded.

Laboratory Exercises: 6 or 7 lab exercises will be included in this course. Lab reports should be in the format of a formal technical report. This means sections should be clearly labeled, figures should include captions and the axis labeled, and you should explain how you collected your data, present your data, and walk the reader through how you analyzed the data.

Tests: Tests will be closed book and closed notes. Make-up tests are discouraged, but if you have an job interview, plant trip, or swine flu, we'll arrange for a make-up exam.

Special Needs - Any students with disabilities or other special needs, who need special accommodations in this course are invited to share these concerns or requests with the instructor as soon as possible.

Academic Honesty - All work in this course must be completed in a manner consistent with NDSU University Senate Policy, Section 335: Code of Academic Responsibility and Conduct. Violation of this policy will result in receipt of a failing grade.

ECE Honor Code: On my honor I will not give nor receive unauthorized assistance in completing assignments and work submitted for review or assessment. Furthermore, I understand the requirements in the College of Engineering and Architecture Honor System and accept the responsibility I have to complete all my work with complete integrity.