

EE3824 Electric Energy Conversion 4.0

Fall 2011

Objective: To develop in students ability to analyze and design systems for electric energy conversion. ABET: a, e, k.

Text: T. Wildi, Electrical Machines, Drives, and Power Systems, 6th edition, Prentice Hall, 2006

Outline: Electricity, magnetism, circuits, and powers (Chapters 2, 7, 8). Transformers (Ch. 9 – 12). Induction Machines (Ch. 13 – 15, 18). Power electronics (Ch. 21 – 23). Power Systems if time permits (Ch. 24 – 26).

Lecture and lab lecture: Tuesday 2:00-2:55 and Thursday 2:00-3:50 in JAB773

Lab lecture on Tuesday 3:00-3:55 in JAB773, starting date TBA.

Laboratory: Monday 12:00-3:00 or Friday 9:00-12:00 (4 experiments, will begin on TBA)

Instructor: Dariusz Czarkowski

Contact: LC 226, x3256, dcz@pl

Office hours: Tuesday 11:00-12:00, by appointment, or whenever you can find the office door open.

Laboratory instructor and course grader: Richard Macwan and Saroni Brahma.

Contact: LC 017/018, x3894

Office hours: TBA or by appointment.

Course web page: see MyPoly for course info, announcements, and assignments.

Exams: Two 1-hour midterms (Oct. 18th and Nov. 8th), comprehensive final. Exams are closed-book and closed-notes. You are allowed to bring 2 sheets of paper (3 for the final) with formulas.

Homework: End-chapter problems will be assigned as a homework. Solutions will be distributed after the due date. No homework will be accepted after solutions are distributed. Homework submission is a part of the final grade.

Grading:

homework 10%

laboratory 25%

midterms 10% each

final 45%