

EL5673 Electronic Power Supplies 3.0

Spring 2012

Outline: Basic concepts and steady-state analysis of switching cells (2-3 weeks). Isolated PWM dc-dc switching cells (2-3 weeks). Steady-state modeling and switches (1 week). Midterm (1 week). Control of PWM converters (4-5 weeks). Resonant and soft-switching converters (2 weeks). Applications to computer equipment, distributed power systems, uninterruptible power supplies, and electric drives (1 week).

Text: M. Kazimierczuk *Pulse-width Modulated DC-DC Power Converters*, Wiley, 2008.

Lecture: Tuesday 2:00-4:40 PM in RH721

Instructor: Dariusz Czarkowski

Contact: LC 260, x3256, dcz@pl.poly.edu

Office hours: Wednesday 11-noon, by appointment, or whenever you can find the office door open.

Web pages:

Course page - login to MyPoly (my.poly.edu)

Exams: 1 midterm (March 20th), comprehensive final. All exams are open-book and open-notes.

Homework: Several sets of problems and/or simulations will be assigned as a homework. Solutions will be distributed after a submission deadline. Homework submission is a part of the final grade.

Grading:

homework 10%

midterm 30%

final 60%