EL6693  Electronic Power Supplies  3.0

Fall 2018
Self-contained course on PWM power converters for graduate students.

Outline: Basic concepts and steady-state analysis of switching cells (4 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 (1 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, 2nd ed., Wiley,
2015.

Lecture: Monday 12:25-2:55 pm in 6 Metrotech, room RH325

Instructor: Dariusz Czarkowski

Contact: LC 200H, x73256, dc1677@nyu.edu

Office hours: Wednesday 12:30 – 1:30 pm, by appointment, or whenever you can find the
office door open.

Web pages:
Course page - login to NYUClasses
Some handouts will be provided by the instructor.

Exams: 1 midterm (Oct. 29), 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%