Southern Illinois University at Carbondale
Fall 2010
Syllabus: ECE 446 Electronic Circuit Design

Instructor:
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Office Hours: MWF 3:00–4:30 PM, and by appointment.

Lecture: MWF 11:00–11:50 AM, ENGR. A-222
Labs: Flexible (to be decided later)


Course Topics:
- Introduction {1 class}
- Device Fundamentals {2 classes}
- BJT biasing and amplifiers {2 classes}
- MOS biasing and amplifiers {1 class}
- Cascodes and Current Mirrors (Single-stage amplifiers) {6 classes}
- Differential amplifiers {6 classes}
- Frequency response of amplifiers {6 classes}
- Feedback: circuits and stability {6 classes}
- Output Stages and Power Amplifiers {3 classes}
- Analog Filters {3 classes}
- Tuned amplifiers and oscillators {3 classes}

Evaluation:
- Quizzes (best 5/7) 20%
- Homework 15%
- Midterm Exam 20%
- Final Exam 30%
- Lab 15%

Note:
1. Students are responsible for all announcements made in the class.
2. Emphasis will be given on the conceptual understanding of the subject-matter rather than on memorization of equations.