

ECE331 - Electronic Circuits

Spring 2010
Department of Electrical and Computer Engineering
University of Toronto

Instructor: Sorin Voinigescu

BA5132, Tel.: 946-8664, email:sorinv@eecg.toronto.edu

Lab Schedule

Lab No.	PRA 01 Mon. 9-12 GB445	PRA 02 Wed. 9-12 GB445
Lab 1	Jan 18	Jan 13
Lab 2	Feb 1	Jan 27
Lab 3	Feb 22	Feb 10
Lab 4	March 8	March 3
Lab 5	March 22	March 17

Tutorial Schedule

- TUT 01: Every week, Wednesday 16:10-17:00, BA2139, starting January 6th.
 - TUT 02: Every week, Thursday 10:10-11:00, BA3008, starting January 7th.
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Course Syllabus

Topics	S&S, 5th Edition
Lab Primer: Review of BJT Pre-Amplifier Power Amplifier	Course Handouts Chapter 5 Chapter 5 Chapter 14
Review of MOS Transistors CG, CS, CD configurations	Chapter 4
Frequency Response	6.4, 6.6
Cascode, Folded Cascode, and Current Mirrors	6.8, 6.12
Differential Amplifiers	7.1-7.2, 7.4-7.6
Feedback Amplifiers	8.1-8.4, 8.6
Stability Using Bode Plot	8.10
Frequency Compensation	8.11

Textbook: Sedra and Smith, *Microelectronic Circuits*, Fifth Edition

Grading

Labs (5)	10%
Midterm #1 February 11th., 7pm-8pm, WB 342	25%
Midterm #2 March 24th., 7pm-8pm, GB 304	25%
Final	40 %

Course Description

Transistor amplifiers, including: differential and multistage amplifiers, integrated circuit biasing techniques, output stage design and IC amplifier building blocks. Frequency response of amplifiers at low, medium and high frequencies. Feedback amplifier analysis. Stability and compensation techniques for amplifiers using negative feedback.