

ECE 334, Microelectronic Circuits, Fall 2005

Time and Place of Lectures: 9:15-10:30 TTH, ECG G224

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Line #: 14123

Office Hours: 10:40am-12:10pm TTH, GWC610

Prerequisites

ECE 201, Electrical Networks I

Text

A. S. Sedra and K. C. Smith, Microelectronic Circuits, Fifth Edition, Oxford University Press

Description

Application of electrical network theory to semiconductor circuits, diodes, transistors, amplifiers, opamps, digital logic gates, and electronic instruments.

Topics (Chapters 1-7)

Linear networks, signals, information, noise, concepts of amplifiers and digital gates, operational amplifier circuits, diodes and models, BJT amplifier circuits, MOS amplifier circuits, current mirrors, CMOS inverters, CMOS logic, BJT differential pairs, and MOS differential pairs.

Student responsibilities

- Attending class;
- Reading textbook;
- Completing and turning in homework assignments in time (about 10 times - 10%) - *Late homeworks will not be accepted*;
- Taking exams: two midterm exams (40% -20% each) and a final exam (35%) - *no make-up exams*;
- Laboratory (15%) - weekly meeting under the guidance of a TA.