COURSE DESCRIPTION

Microelectronic Devices and Circuits is a course which aims to provide a basic understanding of integrated circuits, as well as an introduction in electronic devices. See the attached "Instructional Objectives" for more detail. The textbook is:


A reader including the Laboratory Manual and the solutions to even exercises in the textbook is available from

Copy Central (Southside)
2560 Bancroft Way
(510) 848-8649

The course consists of three 50 minute lectures per week, one discussion session at which the homework and lecture material will be reviewed, and one three-hour laboratory per week.

Prerequisite: EECS 40 or 401 (see list of topics needed for 105)

Reserve Books: In addition to the textbooks and the reader, the following references are helpful and will be on two-hour reserve at the Bechtel Engineering Library:

Textbooks:

SPICE Guidebooks

Laboratory: The laboratory is based on a BiCMOS tile-array chip set from Microlinear, Inc. that allows a series of experiments that are closely connected with the lecture material. The laboratory is integrated closely with the lectures and reader; satisfactory completion of the laboratory experiments is required in order to receive a grade in the course.
**Homework Assignments and Quizzes:** There will be weekly assignments during the semester, distributed on Wednesdays and due at the beginning of lecture the following Wednesday. Homework sets that would have been due on a midterm exam will be due at the beginning of the next lecture on Friday. For homework assignments that include SPICE, *no credit* will be given unless the SPICE portions are completed. Solutions to the homework will be distributed at the next lecture on Friday.

**Exams and Grading:** There will be two 80 minute midterm exams and a final exam. The midterms will be held on Wednesday, October 7, 1998 and on Wednesday, November 18, 1998. Both midterms will take place at 6pm in the Sibley auditorium. The final exam will be held 12:30-3:30pm on Wednesday, December 9, 1998 at a location to be announced.

Your grade for the course will be made up approximately as follows:

Homework 10%, Laboratory, 25%; Midterm I, 15%; Midterm II, 20%, Final exam, 30%.

Note that 35% of the course grade is from homework and the laboratory. In other words, hard work in EECS 105 will pay off; conversely, a half-hearted effort with good exam scores won't result in an optimal grade in the course!