Course Syllabus

Electronic Technology 135 **Semiconductor devices and Circuits**

Instructors: **Hal Silverman**
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Office Location: **TAS Conf Room**

Time: **Tues – Thurs. 7:00PM- 10:00PM**

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Course Title: **Semiconductor Devices and Circuits**
Class Meeting: **Tuesday & Thursday from 7:00PM to 10:00PM**

Class Starts : **August 24, 2004**
Class Ends: **December 14, 2004**

Course Description: Fundamentals of common semiconductor devices and related circuits. The course includes laboratory experiments to verify the performance of the circuits studied.

Text Book: Electronic Devices, Floyd 6th Edition, Prentice Hall (ISBN# 0-13-028484-X)

Lab Manual: Laboratory Exercises for Electronic Devices 6th Edition,
(ISBN#0-13-092275-7)
Buchla, Prentice Hall

Last Day to drop: Refer to Saddleback Fall 2004 Class Schedule

Policies:

Lab Assignments:	**Due one (1) week after lab experiment is scheduled. Half off if less than two weeks late**
Lab Grading:	**Each lab report will be graded on a scale from 0-5. (0-3 for lab data;0-1 for questions in the lab manual;0-1 for conclusions)** **Will drop the two lowest lab assignments**
Exams:	**Approximately 7 exams ~ will drop the lowest grade** **Exams will be announced approximately 2 weeks ahead of the exam.** **Exams will cover most recent lecture material. It will usually be one to two chapters at a time.**
Other Grading:	**Extra credit problems will be assigned at the discretion of the instructor.**
Attendance:	**It is the student's responsibility to be in class every night.**

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Class Withdrawal:	**It is the student's responsibility to formally withdraw from the class in time to prevent an "F" grade**
Letter Grade Assignment:	**89.5 to 100 "A"** **79.5 to 89.4 "B"** **69.5 to 79.4 "C"** **59.5 to 69.4 "D"** **< 59.5 "F"** **Students will be individually be informed by E Mail of their progress in class.**
Exam Weighting:	**Hour Exams: 40%** **Lab assignments: 40%** **Final Exam: 20%** **Extra Credit will be included in the hour exam evaluation.**

Course Schedule

Week	Tues Lecture	Quiz Tuesdays	Thurs Lab Exp *
1	Course Intro Ch1	None	#1
2	Chapter 2	None	#2
3	Chapter 2,3	Quiz #1	#3
4	Chapter 3	None	#4
5	Chapter 4	Quiz #2	#6
6	Chapter 4,5	None	#7
7	Chapter 5	None	#8
8	Chapter 6	Quiz #3	#9
9	Chapter 6	None	#10
10	Chapter 7	Quiz #4	#12
11	Chapter 7,8	None	#13
12	Chapter 8	Quiz #5	#14
13	Chapter 9	None	#16
14	Chapter 9	Quiz #6	No School
15	Chapter 10 (Sect 1-3 & 6-9)	None	#17
16	Chapter 11	Quiz #7	#20

*** Additional Lab experiments may be assigned for extra credit**

Major Topics to be Studied*

Chapter 1	**Introduction to Semiconductors**
Chapter 2	**Diode Applications**
Chapter 2,3	**Diode Applications- Special Purpose Diodes**
Chapter 3	**Special Purpose Diodes**
Chapter 4	**Bipolar Junction Transistors**
Chapter 4, 5	**Bipolar Junction Transistors, Transistor Bias Circuits**
Chapter 5	**Transistor Bias Circuits**
Chapter 6	**Small-Signal Bipolar Amplifiers**
Chapter 6	**Small-Signal Bipolar Amplifiers**
Chapter 9	**Power Amplifiers**
Chapter 9,7	**Power Amplifiers-Field Effect Transistors and Biasing**
Chapter 7	**Field Effect Transistors and Biasing**
Chapter 8	**Small Signal FET Amplifiers**
Chapter 8, 10	**Small Signal FET Amplifiers, Amplifier Frequency Response**
Chapter 10,11	**Amplifier Frequency Response-Thyristors & Other Devices**
	Thyristors & Other Devices

***Other related topics may be added as time permits**