

**Electronics (PHYS-234-01), Spring 2006**

MWF 10:00-10:50

422 Haberland Hall

**Text:** Principles of Electronic Instrumentation 3<sup>rd</sup> Ed. (Diefenderfer & Holton)

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**2 in-class exams @ 25% each, homework 20%, final exam 30%**

<b>Week</b>	<b>Dates</b>	<b>Chapter</b>	<b>Topics</b>	<b>Lab</b>
1	1/18 W	1	Introduction	No Lab
	1/20 F	1	Ohm's Law	
2	1/23 M	1	Kirchoff's Equations	DC Circuits 1
	1/25 W	6.1-6.4	Analog and Digital Meters	
	1/27 F	1	Circuit Analysis	
3	1/30 M	2	Capacitance	DC Circuits 2
	2/1 W	2	RC and RL Circuits	
	2/3 F	3	AC Circuits	
4	2/6 M	6.5-6.7	The Oscilloscope	RC Circuits
	2/8 W	3	Low-pass/High-pass Filters	
	2/10 F	3	Impedance and Phasors	
5	2/13 M	4	Transformers	No Lab
	2/15 W		EXAM 1 (Ch. 1-3, 6)	
	2/17 F	4	Transmission Lines	
6	2/20 M	5	P-N Junction Diodes	AC Circuits
	2/22 W	5	Rectification	
	2/25 F	5	Zener Diodes	
7	2/27 M	8	Bipolar Junction Transistors	Diodes
	3/1 W	8	Transistor Circuits	
	3/3 F	8	FET Amplifier	
8	3/13 M	9	Introduction to Op Amps	Transistors
	3/15 W	9	Inverted and Non-inverted Amplifiers	
	3/17 F	9	Integration and Differentiation	
9	3/20 M	9	Op Amp Circuits	No Lab
	3/22 W		EXAM 2 (Ch. 4-9)	
	3/24 F		No Class	
10	3/27 M	11	Introduction to Digital Gates	Op Amps
	3/29 W	11	Boolean Algebra and Binary Numbers	
	3/31 F	11	Bus Drivers	
11	4/3 M	11	Basic Digital Circuits	Digital Logic 1
	4/5 W	12	Flip-Flops	
	4/7 F	12	Counters and Multiplexers	
12	4/10 M	12	Advanced Digital Circuits	No Lab
	4/12 W	13	Bits, Bytes, Words	
	4/14 F		Easter Recess	
13	4/17 M		Easter Recess	Digital Logic 2
	4/19 W	13	Adders and Registers	
	4/21 F	13	Computer Memory	
14	4/24 M	13	Microprocessor Programming	Microprocessor
	4/26 W	14	Parallel and Serial Input/Output	
	4/28 F	14	Digital to Analog Conversion	
15	5/1 M	14	Analog to Digital Conversion	Final Project
	5/10 W		FINAL EXAM	