Department of Physics and Astronomy

Electronics (Physics 221) Syllabus

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http://www.ph.hunter.cuny.edu/courses/physics221/Syllabus-2008.pdf

Text book: Introductory Electronics for Scientists and Engineers, Second Edition, by Robert E. Simpson, Allyn and Bacon.

The course grade is based on the following (assuming that all the midterms are taken):

Homework 10%, Quizzes 20%, midterms 40% and final 30%. There will be two midterms. Each will count for 20%. There will be no makeup midterms. If a student misses one midterm for a valid reason, the course grade will be based on the exams taken, with homework plus final still counting for 100% of the course grade. The homework must be handed in one week after the chapter ended.

Students are recommended to attend the weekly workshops for problem solving.

The standard Hunter College grading scale will be used in Electronics Lab:

90%-100%, student gets A
80%-89%, student gets B
65%-79%, student gets C
50%-64%, student gets D
0%-49%, student gets F

Topics covered include : Direct Current Circuits, Alternating Circuits, Fourier Analysis and Pulses, Semiconductor Physics, The Bipolar Transistor, The Field-Effect Transistor, Feedback, Noise, Operational Amplifier, Optoelectronics, and Basic Logic Concepts

Class schedule for Spring 2008

01/29	Direct current circuit	01/31	Kirchhoff's laws
02/05	Thevenin's and Norton's theorems	02/07	Alternating current circuits
02/12	----------	02/14	Quiz #1 Capacitance and inductance, Filters
02/19	Resonace	02/21	Fourier transform and pulses
02/26	Fourier transform and pulses	02/28	Quiz #2 Semiconductor physics, energy band.
03/04	PN junction and diodes	03/06	First midterm
03/11	Diodes and applications	03/13	Bipolar transistors
03/18	Transistor circuits	03/20	Quiz #3 Amplifiers
03/25	Field-effect transistors	03/27	FET circuits
04/01	Feedback	04/03	Feedback Operational amplifiers
04/08	Operational amplifiers	04/10	Second Midterm
04/15	Operational amplifiers	04/17	Noises
04/22	----------	04/24	----------
04/29	Quiz #4 Oscillators and special circuits	05/01	Opto-electronics
05/06	Logic circuits	05/08	Logic circuits
05/13	Review	05/15	----------

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