

Rules:

There will be a homework set assigned every Tuesday which will be due at the beginning of class the following Tuesday. You are encouraged to work together on solving the homework problems but the final write up must be your own.

Homework which is one day late can earn a maximum of 75 % of the total score, two days late 50 %, three days late 0. Homework turned in after the Tuesday class is considered 1 day late. The purpose of this policy is to allow your TA to discuss solutions during the Thursday discussion time. Your lowest score won't count towards your grade, so you can skip one homework completely if you are sick/travelling/busy, etc.

You'll be allowed to bring in one single-sided page of notes (8.5 x 11) into the mid-term. For the final you can have notes on both sides.

ECE 162A Lecture topics and Reading, Fall, 2007

Lecture topics	Reading		
	<i>Eisberg/Resnick</i>	<i>Kroemer</i>	<i>French/Taylor</i>
Electrons as particles and waves	2,3	1.1-1.2	2
Electron diffraction, wave equations	3	1.3, 2	3
Schrodinger equation, eigenstates	5	1.4-1.6	3
Square well	6, App. H	2.1-2.2	4
Harmonic oscillator	6	2.3	4
Approximation methods	Appendix J	14, 15	-
Computer calculation, matrix solution	Appendix G	-	4.5
Expectation values	5.4	2.4, 7.1	5
Time-dependence of quantum states	-	2.3-2.4, 2.6	8
Wave packets	3	4.1-4.2	8
Uncertainty relations	3	4.3	8
Tunneling and transmission	6	5.1-5.3, 6.4	9
Scattering	6	5.5-5.6	9
Hydrogen atom, atomic structure	7	3.1-3.2	10, 11, 12
Exclusion principle, periodic table	9.1-9.3	-	13
Free electrons in metals	13	-	13
Bonds	13	-	-
Periodic potentials	13	5.4, 14.3	-
Energy bands	13	5.4, 14.3	-