

Text (Halliday & Resnick)		Physics C % of Exam	Qty Classes
	I. Newtonian Mechanics	50%	45
	A. Kinematics (includes non-constant acceleration)	9%	8
Ch 2	0. Vector algebra (includes cross product)		
Ch 3	1. Motion in one dimension		
Ch 4	2. Motion in a plane (incl. projectile and uniform circular motion)		
Ch 5 & 6	B. Particle Dynamics	10%	9
	0. Newton's laws		
	1. Force		
	2. Mass		
	3. Force laws		
	4. Friction		
	5. Uniform circular motion		
Ch 7 & 8	C. Work, energy, power (Incl. variable forces)	7%	6
	1. Kinetic energy & the Work-Energy theorem		
	2. Power		
	3. Conservative Forces & conservative systems		
	4. Potential energy		
	5. Conservation of energy		
Ch 9 & 10	D. Dynamics of systems of particles, linear momentum	6%	5
	1. Center of mass		
	2. Impulse and momentum		
	3. Conservation of linear momentum		
	4. Collisions		
Ch 11 & 12	E. Rotational kinematics and dynamics	9%	8
	1. Uniform circular motion		
	2. Torque and rotational statics		
	3. Angular momentum and its conservation		
Ch 14 & 15	F. Oscillations and gravitation	9%	8
	1. Simple harmonic motion (dynamics and energy relationships)		
	2. Mass on a spring		
	3. Pendulum and other oscillations		
	4. Newton's law of gravity		
	5. Orbits of planets and satellites (circular, general)		

Text (Halliday & Resnick)		Physics C % of Exam	Qty Classes
	II. Electricity and Magnetism	50%	45
	A. Electrostatics	15%	14
Ch 23	1. Charge and Coulomb's law		
Ch 24	2. Electric field and electric potential (including point charges)		
Ch 25	3. Gauss's law		
Ch 26	4. Fields and potentials of other charge distributions		
Ch 27	B. Conductors, capacitors, dielectrics	7%	6
	1. Electrostatics with conductors		
	2. Capacitors		
	3. Capacitance (parallel plate, spherical and cylindrical)		
	4. Dielectrics		
Ch 28, 29	C. Electric circuits	10%	9
	1. Current, resistance, power		
	2. Steady-state DC circuits with batteries and resistors only		
	3. Capacitors in circuits		
	4. Transients in RC circuits		
Ch 30, 31	D. Magnetic Fields	10%	9
	1. Forces on moving charges in magnetic fields		
	2. Forces on current-carrying wires in magnetic fields		
	3. Fields of long current-carrying wires		
	4. Biot-Savart law and Ampere's law		
Ch 32, 33, 37	E. Electromagnetism	8%	7
	1. Electromagnetic induction (incl Faraday's law and Lenz's law)		
	2. Inductance (including LII and LC circuits)		
	3. Maxwell's equations		