

# Schedule for Classical Mechanics

## PHYS-330: Fall 2005

Date	Day	Topics	Reading Assignment	Due
30-08	T	Introduction; Equations of motion		
02-09	F	Vectors	1.1-1.12	WU 1, 11AM
06-09	T	Coordinate systems	1.13-1.15, F.1-F.3	HW 1, in class
09-09	F	Particle Dynamics	2.1-2.3, intro text	WU 2, 11 AM
13-09	T	Projectile motion	2.4, C.1-C.2, H	HW 2, in class
16-09	F	Rigid bodies	9.1-9.2, E.1-E.3, intro text, web, 11.1-11.3*	WU 3, 11 AM
20-09	T	Equilibrium	2.1-2.3, D.2, intro text	HW 3, in class
23-09	F	Conservation Laws	2.5-2.6, 9.3-9.5	WU 4, 11 AM
27-09	T	Rolling	11.1-11.2, web, intro text	HW 4, in class
30-09	F	Simple machines	web, intro text	WU 5, 11 AM
04-10	T	Potential energy	2.6, 5.1-5.4	HW 5, in class
07-10	F	Harmonic oscillators	3.1-3.4, D.4-D.6	WU 6, 11 AM
14-10	F	Resonance	3.5-3.9	HW 6, in class
18-10	T	MIDTERM		
21-10	F	Gravity	5.1-5.5	WU 7, 11 AM
25-10	T	Calculus of variations	6.1-6.7, web	HW 7, in class
28-10	F	Lagrangian dynamics	7.1-7.4	WU 8, 11 AM
01-11	T	Configuration space and phase space	7.5-7.12	HW 8, in class
04-11	F	Hamiltonian dynamics	7.9-7.13	WU 9, 11 AM
08-11	T	Chaos	4.1-4.8, web	HW 9, in class
11-11	F	Reference frames and systems of particles	8.1-8.2, 9.1-9.5	WU 10, 11 AM
15-11	T	Kepler problem	8.3-8.7,	HW 10, in class
18-11	F	Collision	9.3-9.8	WU 11, 11 AM
22-11	T	Scattering	9.9-9.10, web	
29-11	T	Rockets	8.8, 9.11	HW 11, in class
02-12	F	Non-inertial reference frames	10.1-10.4	WU 12, 11 AM
06-12	T	Tops and gyroscopes	11.3-11.12	HW 12, in class
09-12	F	Connections and conclusions	2.7, 12.1, 13.1, 14.1	
TBA		FINAL		

Reading assignments marked with a \* may be challenging. The book treats the subject in a different order than the class so occasionally prior knowledge may be assumed by these sections. Reading assignments with a letter are appendices.