

Haverford College - Physics Department
Physics 308a: Advanced Classical Mechanics
F. Crawford
Fall 2004 Course Schedule/Syllabus

Week	Dates	Topics	Reading	Computer Project
Week 1	Aug 30 - Sep 3	Newton's Laws; Projectiles	Ch. 1,2	
Week 2	Sep 6 - Sep 10	Momentum; Angular Momentum	Ch. 3	
Week 3	Sep 13 - Sep 17	Energy	Ch. 4	Handed out
Week 4	Sep 20 - Sep 24	Oscillations	Ch. 5	I, IIA due
Week 5	Sep 27 - Oct 1	Calculus of Variations	Ch. 6	IIB due
Week 6	Oct 4 - Oct 8	Lagrange's Equations	Ch. 7	IIIA, IIIB due
Week 7	Oct 11 - Oct 15	<i>none - Fall Break</i>	<i>none</i>	
Week 8	Oct 18 - Oct 22	Central Forces and Orbits	Ch. 8	IIIC, IIID due
Week 9	Oct 25 - Oct 29	Rotating/Non-inertial Frames	Ch. 9	IIIE, IIIF, IIIG due
Week 10	Nov 1 - Nov 5	Rigid Bodies	Ch. 10	
Week 11	Nov 8 - Nov 12	Coupled Oscillators	Ch. 11	
Week 12	Nov 15 - Nov 19	Non-linear Mechanics; Chaos	Ch. 12	
Week 13	Nov 22 - Nov 24	Collision Theory	Ch. 14	
Week 14	Nov 29 - Dec 3	Special Relativity	Ch. 15	
Week 15	Dec 6 - Dec 10	Continuum Mechanics; Fluids	Ch. 16	

All readings are from *Classical Mechanics*, by John. R. Taylor.

No coursework can be accepted after the last day of classes (Fri Dec 10).

The Final Exam is a self-scheduled exam to be taken during final exam week (Mon Dec 13 to Fri Dec 17).