

## Course Syllabus PHYS 310 Mechanics Spring 2012

**Instructor:** Dr. Glenn Piner  
**Office:** Science 105E (office) or 105A (lab)  
**Office Hours:** M, W 1:00-3:00 (but drop by anytime)  
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**Class Hours:** Tu, Th 9:30-10:50  
**Text:** *Classical Dynamics of Particles and Systems*  
 By Thornton and Marion (5th edition)

**Grading:** Test 1: 25%  
 Test 2: 25%  
 Final Exam: 25%  
 Homework: 25%

Date	Topic Covered	Assigned Reading
1/26	Introduction	
1/31	Review of Newtonian Mechanics	Chapter 2 (2.1-2.6)
2/2	"	"
2/7	Newtonian Gravitation	Chapter 5 (5.1-5.4)
2/9	"	"
2/14	Special Theory of Relativity	Chapter 14 (14.1-14.9)
2/16	"	"
2/21	"	"
2/23	"	"
2/28	Calculus of Variations	Chapter 6 (6.1-6.3, 6.5, 6.7)
3/1	<b>Test 1 on Chapters 2, 5, and 14</b>	
3/6	Lagrangian & Hamiltonian Dynamics	Chapter 7 (7.1-7.4, 7.7, 7.9-7.10)
3/8	"	"
3/13	"	"
3/15	Central-Force Motion	Chapter 8 (8.1-8.8)
3/20	"	"
3/22	"	"

<b>Date</b>	<b>Topic Covered</b>	<b>Assigned Reading</b>
4/3	Central-Force Motion (continued)	Chapter 8 (8.1-8.8) (continued)
4/5	Noninertial Reference Frames	Chapter 10 (10.1-10.4)
4/10	<b>Test 2 on Chapters 7 and 8</b>	
4/12	Noninertial Reference Frames (cont.)	Chapter 10 (10.1-10.4) (continued)
4/17	“	“
4/19	Dynamics of Rigid Bodies	Chapter 11 (11.1-11.5, 11.8-11.9)
4/24	“	“
4/26	“	“
5/1	“	“
5/2	Review Session for Final (Reading Day)	
5/4	<b>Cumulative Final Exam, 8:00-10:00 AM</b>	

**Late Homework Policy:** Late homework will ONLY be accepted up to 1 week from the due date for half credit.