

PHYS 2302 lesson, tutorial, and assignment schedule

D. Clarke; Fall 2020

lesson	topics	§§ in text	tut.	due
1. Θ Sep. 10	vector fundamentals	1.3–1.7, 1.9	1.1	
2. T Sep. 15	coordinate systems, circular motion, Newton's laws	1.10–1.12, 2.1 [†]	1.2	
3. Θ Sep. 17	kinematics, Newton's 2 nd Law, free-body diagrams, friction	2.2	1.3	
4. T Sep. 22	FBDs, Newton's 3 rd law	2.2	1.4	
5. Θ Sep. 24	<i>first lesson in ODEs</i>		2.1	
6. T Sep. 29	$F(x)$, $F(v)$, W - K theorem, energy conservation	2.3, 2.4	2.2	A1
7. Θ Oct. 1	<i>second lesson in ODEs</i> , Hooke's Law	3.1	3.1	
8. T Oct. 6	simple harmonic oscillation	3.2	3.2	A2
9. Θ Oct. 8	energy of a SHO, damped harmonic motion	3.3, 3.4	4.1	
10. T Oct. 13 Θ Oct. 15	damped harmonic oscillators midterm 1: to the end of §2.3 in class notes (middle of lesson 9)	3.4	4.2	
11. T Oct. 20	LRC circuit, <i>third lesson in ODEs</i>	6.7–6.10, 6.12	4.3	A3
12. Θ Oct. 22	Driven, damped harmonic motion	3.6	5.1	
13. T Oct. 27	resonance, dimensional analysis	3.6	5.2	A4
14. Θ Oct. 29	vector calculus [‡] , W - K theorem, conservative forces	4.1, 4.2	6.1	
15. T Nov. 3	constrained motion, separable forces	4.6	6.2	A5
16. Θ Nov. 5	projectile motion, with and without air resistance	4.3	6.3	
17. T Nov. 17 Θ Nov. 19	multi-dimensional oscillators midterm 2: to the end of §3.3.1 in class notes (middle of lesson 16)	4.4	7.1	
18. T Nov. 24	electromagnetic forces, accelerating reference frame	4.5, 5.1	7.2, 8.1	A6
19. Θ Nov. 26	accelerations in a rotating reference frame	5.2	8.2	
20. T Dec. 1	Coriolis theorem	5.3	8.3	A7
21. Θ Dec. 3	effects of earth's rotation, O'Neill cylinder, projectile motion	5.4, 5.5	8.4	
22. T Dec. 8	Foucault pendulum	5.6	—	A8

[†]See also on-line handout on [Newton's laws of motion](#).

[‡]See also on-line handout on [vector calculus](#).