

Date	Topic	Ungraded due	Graded due	Reading assigned
1.18	Diagnostics and syllabus task			F&C 4.1
1.20	Tut: conservative forces and potential energy (CFE)	Pretest due		F&C 4.2
1.22	Curl and conservation			F&C 4.3
1.24	Tut: Separable forces (SF)	Pretest due	text hw	
1.26	Defining coordinate systems	Pretest due	<i>Tut HW CFE</i>	F&C 4.4
1.29	Tut: 2-Dimensional Harmonic Motion (2DH)		text hw	
1.31	Tut: energy conservation, constraints (ECC)		<i>Tut HW SF</i>	F&C 4.6
2.2	Rephrasing energy: Lagrangian	Pretest due	text hw	F&C 10 intro, 10.2
2.05	Tut: Generalized coordinates (GC)	Pretest due	<i>Tut HW 2DH</i>	F&C 10.3
2.07	SHM with the Lagrangian		<i>Tut HW ECC</i>	F&C Eqn. 10.4.5
2.09	Tut: Newtonian and Lagrangian Methods (NLM)	Pretest due	text hw	
2.12	Modeling 3 dimensional motion as 3 1-dimensions		<i>Tut HW GC</i>	F&C 4.4 again
2.14	Forces, FBDs, and SHM again		<i>Tut HW NLM</i>	F&C 2.1 and 2.2 (long)
2.16	Tut: Air Resistance 1 (AR1)	Pretest due	text hw	F&C 2.4
2.19	EXAM – energy, curl, coordinates (to 2.09, NLM)			
2.21	Tut: Air Resistance 2 (AR2)	Pretest due	<i>Tut HW AR1</i>	
2.23	Damping forces alone		<i>Tut HW AR2</i>	
2.26	Tut: air resistance problems (ARP)	Pretest due	text hw	
2.28	Summarize air resistance, combine math and physics		<i>Tut HW ARP</i>	
3.02	SHORT EXAM – air resistance (to 2.26, ARP)			
3.05-3.16	<i>Spring Break, classes not in session</i>			

Date	Topic	Ungraded due	Graded due	Reading assigned
3.19	Tut: Damped Harmonic Motion (DHM)	Pretest due		F&C 3.1 and 3.2
3.21	Operator algebra and differential equations		text hw	
3.23	Damped harmonic motion, mathematically		<i>Tut HW DHM</i>	F&C 3.4
3.26	Tut: Special Case Equations (SCE)	Pretest due	text hw	
3.28	Damped harmonic motion, consistency of methods		text hw	F&C 3.6
3.30	Energy in damped harmonic motion		<i>Tut HW SCE</i>	F&C 3.3
4.02	Tut: Quality Factor (QF)	Pretest due	text hw	
4.04	Forced harmonic motion		text hw	F&C 3.6
4.06	<i>Tut: Non-Harmonic Oscillations (NHO)</i>	Pretest due	<i>Tut HW QF</i>	
4.09	Introducing non-inertial systems		text hw	F&C 5.1
4.11	Tut: Accelerating Reference Frames I (ARF1)	Pretest due	<i>Tut HW NHO</i>	F&C 5.2
4.13	EXAM – harmonic motion (to 4.04 and QF)		text hw	
4.16	Tut: Accelerating Reference Frames II (ARF2)			F&C 5.3 and 5.4
4.18	Apparent and actual forces		text hw	
4.20	Tut: Foucault pendulum (FP)	Pretest due	<i>Tut HW ARF</i>	F&C 5.6
4.23	Motion in non-inertial systems		text hw	
4.25	Tut: Angular Momentum and Elliptical Orbits (AME)	Pretest due	<i>Tut HW FP</i>	F&C 6.1-6.4 (long)
4.27	SHORT EXAM – Reference Frames (to 4.23 and FP)			
4.30	Gravitational forces		text hw	F&C 6.6
5.02	Problem solving		<i>Tut HW AME</i>	
5.04	Final Exam review			
TBD	FINAL EXAM (cumulative)			