Physics 301 Fall 2023

Date	Day	Class Day	Special Note	Торіс	Reading/Assignment
8/24/23	Thu	1	First Day of Class	Intro, Review: Inertial Frames	
8/29/23	Tue	2		SR: Transformations, SR Postulates	Knight: 36.1-3, and UP 38.1-3
8/31/23	Thu	3		SR: Simultaneity, Time Dilation	Knight: 36.4-6, and UP 38.4-7, 38.9
9/5/23	Tue	4		SR: Length, Lorentz Transform	Knight: 36.7-8, and UP 38.8, 38.11-12
9/7/23	Thu	5	HW 1 Due	SR: Spacetime Diagrams	Handout: Spacetime Diagrams
9/12/23	Tue	6		SR: Momentum and Energy	Knight: 36.9-10, and UP 38.10
9/14/23	Thu	7		SR: Conservation, 4-Vectors, Causality	
9/19/23	Tue	8	HW 2 Due	Waves: Review SHM, Types, Sinusoidal	UP: 17.1-17.4 OR OpenStxVol1: 16.1-2
9/21/23	Thu	9		Waves: Velocity, Energy	UP: 17.5-7 OR OpenStxVol1: 16.3-4
9/26/23	Tue	10		Waves: Superposition, Interference	UP: 17.8-17.11 OR OpenStxVol1: 16.5-6
9/28/23	Thu	11		Waves: Standing Waves, Beats	OpenStxVol1: 17.5-6 OR UP: 18.5-6
10/3/23	Tue	12		QM: Lab 1, e/m	Handout: Error Analysis
10/5/23	Thu	13	HW 3 Due	QM: EM Spectrum, Lab 2: Young's 2x Slit	OpenStxVol2: 16.5 AND OpenStxVol3: 1.6, 3.1, 3.2
10/10/23	Tue	14	Lab 1 Due	QM: Blackbody Rad., Compton Eff.	OpenStxVol3: 6.1, 6.3
10/12/23	Thu	15		Exam 1: SR and Waves	
10/17/23	Tue		Fall Break		
10/19/23	Thu		Fall Break		
10/24/23	Tue	16	Lab 2 Due	QM: Photoelectric Effect	OpenStxVol3: 6.2
10/26/23	Thu	17		(If time: Lab 3, Planck's Constant)	
10/31/23	Tue	18	HW 4 Due	QM: Spectroscopy, Bohr Model	OpenStxVol3: 6.4
11/2/23	Thu	19		QM: Spectroscopy, Bohr Model	
11/7/23	Tue	20	(If assigned, Lab 3 Due)	QM: De Broglie, Matter Waves	OpenStxVol3: 6.5, 6.6, What Is Matter? PDF
11/9/23	Thu	21		1DQM: Probability Density	Knight: 39.1-2
11/14/23	Tue	22	Final Paper Topic Submission	1DQM: Wavefunctions	Knight: 39.3-5
11/16/23	Thu	23		1DQM: Heisenburg Uncertainty	Knight: 39.6
11/21/23	Tue	24	HW 5 Due	1DQM: Schrodinger Equation	Knight: 40.1-2
11/23/23	Thu		Thanksgiving Break		
11/28/23	Tue	25	Optional: Paper Draft Due	1DQM: Particle in a Box	Knight: 40.3-5, and UP 10.5 OR OpenStxVol1: 8.4
11/30/23	Thu	26		1DQM: Finite Potential Wells	Knight: 40.6-7
12/5/23	Tue	27	Final Paper Due	1DQM: Other Potential Wells	Knight: 40.8-9
12/7/23	Thu	28		1DQM: Tunneling	Knight: 40.10
12/12/23	Tue	29	HW 6 Due	(Review, Spillover)	100 Years of Quantum Mysteries PDF
12/14/23	Thu	30	Last Day of Class	Exam 2: Quantum Mechanics	
		<u> </u>	<u> </u>		

[&]quot;UP" means "Understanding Physics" by Cummings, Laws, Redish, and Cooney. "Knight" means "Physics for Scientists and Engineers" by Randall D. Knight. OpenStx refers to free online textbook.