

Syllabus Physics 417
Spring 2024

Lecture #	Date	Topic	Sections from Textbook
1	1/16	Quantum Mechanics Vs. Classical Physics	
2	1/18	Complex Vector Spaces	
3	1/23	Hermitian Operators	
4	1/25	Postulates of Quantum Mechanics	
5	1/30	Electron Spin	
6	2/1	Position Representation	
7	2/6	Position & Momentum Operators	
8	2/8	Schrodinger Equation	
9	2/13	Ehrenfest Theorem	
10	2/15	Time Evolution of a Wave Packet	
11	2/20	Spin in a Magnetic Field	
12	2/22	Transformations & Symmetries I	
13	2/27	Simple Harmonic Oscillator I	
14	2/29	Simple Harmonic Oscillator II	
	3/5	Midterm Exam	
15	3/7	Angular Momentum I	
16	3/19	Angular Momentum II	
17	3/21	Rotations of Spin-1/2	
18	3/26	Entanglement	
19	3/28	Bell's Theorem, Tests of Hidden Variables	
21	4/2	Interpretations of Quantum Mechanics I	
22	4/4	Interpretations of Quantum Mechanics II	
20	4/9	Density Matrices	
23	4/11	Quantum Information & Quantum Computing	
24	4/16	Relativistic QM	
25	4/18	Dirac Equation	
26	4/23	Field Theory I	
27	4/25	Field Theory II	