

Quantum Mechanics, Spring 2020, Tentative Schedule

	Monday	Wednesday	Friday
January	6 Einstein and de Broglie	8 Wavefunctions	10 Time evolution
	13 Infinite square well PS 1	15 The Schrödinger equations	17 Qualitative solutions
	20 M. L. King Day	22 The shooting method PS 2	24 Matrix Diagonalization
	27 Harmonic Oscillator	29 Multiple Wells PS 3	31 Momentum space
February	3 Wavepackets	5 Solving the TDSE PS 4	7 Scattering
	10 Review Session and Test Problem sets 1-4	12 Summary of 1D QM	14 Multiple dimensions PS 5
	17 Presidents Day	19 Numerical methods in 2D	21 Multiple particles
	24 Identical particles PS 6	26 Internal structure	28 More about operators
March	2	4 Spring Break	6
	9 Ladder operators PS 7	11 Compatible observables	13 Principles in general
	16 Spherical coordinates PS 8	18 Review Session and Test Problem sets 5-8	20 Angular momentum
	23 Spherical harmonics PS 9	25 The radial equation	27 The hydrogen atom
	30 Spin 1/2 PS 10	1 Spins in magnetic fields	3 Photon polarization
April	6 Addition of angular momentum PS 11	8 More about spin	10 Further topics
	13 Further topics PS 12	15 Further topics	17 Further topics
	20 Review	22 Final exam 1:00 pm - 2:50 pm	24