

Quantum Mechanics Tentative Schedule, Spring 2021

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