

Week	Monday	Tuesday	Wednesday	Thursday	Friday
1. Aug 23-27	1. Probability in Quantum Mechanics		2. Probability distributions 1		3. Probability distributions 2
2. Aug. 30-Sept. 3	4. Hilbert Spaces		5. Orthogonal functions		No Lecture
3. Sept. 6-10	Labor Day	6. The Sturm-Liouville problem	7. Boundary Value Problems in Quantum Mechanics		No Lecture
4. Sept. 13-17	8. Particle in a Box 1	9. Particle in a Box 2	10. Particle in a cube		11. Particles and Waves
5. Sept. 20-24	12. The free particle	13. Potential Barrier	14. Classical harmonic Oscillator		No Lecture
6. Sept. 27-Oct. 1	15. Quantum Harmonic oscillator	16. Harmonic Oscillator 2	16 cont. Harmonic Oscillator 3		No Lecture
7. Oct. 4-8	review	First Hour Exam	17. Operator algebra		18. Introduction to angular momentum
8. Oct. 11-15	19. Angular momentum eigenfunctions	20. Angular momentum eigenfunctions 2	21. The Rigid Rotor		No Lecture
9. Oct. 18-22	22. Ladder operators		Lecture 23 Introduction to the hydrogen atom		Lecture 24 The Schrodinger Equation for the Hydrogen Atom
10. Oct. 25-29	Lecture 25. Properties of the Radial Wave Function		No lecture		Lecture 26. Angular Properties of the Hydrogenic Wave Functions
11. Nov. 1-5	Lecture 27. Dipole Moments and Transition Probabilities	Lecture 28. Electric and magnetic Fields	Lecture 29. Hermitian Operators and the Uncertainty Principle		Lecture 30. Matrix mechanics
12. Nov. 8-12	31. Matrix representation of linear operators	32. Hermitian matrices	33. Finding Eigenvalues and Eigenfunctions		Second Hour Exam
13. Nov. 15-19	34. Coordinate Representation	35. Recovering wave mechanics	36. The variational principle		37. The Linearized Variational Principle
14. Nov. 22-26	38. Non-degenerate Perturbation		39. The Anharmonic Oscillator		Thanksgiving

15Nov 29- Dec 3	40. Degenerate Perturbation Theory	41. Degenerate Perturbation Theory: The Stark Effect	No Lecture		42. Spin and Slater Determinants
16. Dec 6-10			FINAL		