

[E&R] = Eisberg, Robert M., and Robert Resnick. *Quantum Physics of Atoms, Molecules, Solids, Nuclei, and Particles*. Wiley, 1985. ISBN: 9780471873730.

[Li.] = Liboff, Richard L. *Introductory Quantum Mechanics*. Addison Wesley, 2002. ISBN: 9780805387148.

[Ga.] = Gasiorowicz, Stephen. *Quantum Physics*. John Wiley & Sons, 2003. ISBN: 9780471429456.

[Sh.] = Shankar, Ramamurti. *Principles of Quantum Mechanics*. Springer, 2008. ISBN: 9780306447907.

SES #	TOPICS	READING ASSIGNMENTS
L1	Introduction to Superposition	[E&R] Chapter 1: Sec. 6 and 7; Chapter 2: Sec. 1, 2, 3, 4, and 5; Chapter 3: all. [Li.] Chapter 1: all; Chapter 2: Sec. 3, 5, and 6. [Ga.] Chapter 1: Sec. 2, 3, and 4. [Sh.] Chapters 3 and 1.
L2	Experimental Facts of Life	
L3	The Wave Function	
L4	Expectations, Momentum, and Uncertainty	[E&R] Chapter 3: all; Chapter 5: Sec. 1, 3, 4, and 6. [Li.] Chapter 2: Sec. 5–8; Chapter 3: Sec. 1–3. [Ga.] Chapter 2: all except 4. [Sh.] Chapters 3 and 4.
L5	Operators and the Schrödinger Equation	
L6	Time Evolution and the Schrödinger Equation	[E&R] Chapter 5: all [Li.] Chapter 3: Sec. 1–3; Chapter 5: Sec. 2–4. [Ga.] Chapter 2: all; Chapter 3: Sec. 2. [Sh.] Chapters 1 and 4.
L7	More on Energy Eigenstates	[E&R] Chapter 5: all, Chapter 6: Sec. 1, 2, and 8. [Li.] Chapter 3: all; Chapter 4: Sec. 1; Chapter 5: Sec. 1; Chapter 6: all. [Ga.] Chapter 2: Sec. 4; Chapter 3: all. [Sh.] Chapter 4: all; Chapter 5: Sec. 1 and 2.
L8	Quantum Harmonic Oscillator	

SES #	TOPICS	READING ASSIGNMENTS
L9	Operator Methods for the Harmonic Oscillator	[E&R] Chapter 6: Sec. 9, App. I. [Li.] Chapter 7: Sec. 1 and 4. [Ga.] Chapter 4: Sec. 7; Chapter 6: Sec. 1 and 2. [Sh.] Chapter 6: all; Chapter 7: all.
L10	Clicker Bonanza and Dirac Notation	
E1	Exam 1	
L11	Dispersion of the Gaussian and the Finite Well	[E&R] Chapter 6: all; App. G, H. [Li.] Chapter 7: Sec. 1–9; Chapter 8: Sec. 1. [Ga.] Chapter 4: all; Chapter 5: all; Chapter 6: Sec. 1 and 2. [Sh.] Chapter 5: all; Chapter 7: all.
L12	The Dirac Well and Scattering off the Finite Step	
L13	More on Scattering	
L14	Resonance and the S-Matrix	[E&R] Chapter 6: all. [Li.] Chapter 7: Sec. 1–9; Chapter 8: Sec. 1. [Ga.] Chapter 4: all; Chapter 6: all; Chapter 19: Sec. 2. [Sh.] Chapter 1: 6; Chapter 5: all; Chapter 11: all; Chapter 19: Sec. 2.
L15	Eigenstates of the Angular Momentum Part 1	
L16	Eigenstates of the Angular Momentum Part 2	[E&R] Chapter 7: all, App. M, N. [Li.] Chapter 8: Sec. 6; Chapter 9: Sec. 1, 2, and 3; Chapter 10: Sec. 1, 2, and 3. [Ga.] Chapter 7: all; Chapter 8: Sec. 1, 4, and 5. [Sh.] Chapter 12: all.
E2	Exam 2	
L17	More on Central Potentials	[E&R] Chapter 7: all; App. M, N. [Li.] Chapter 8: Sec. 2 and 3; Chapter 10: all. [Ga.] Chapter 4: Sec. c; Chapter 8: all.
L18	"Hydrogen" and its Discontents	
L19	Identical Particles	

SES #	TOPICS	READING ASSIGNMENTS
L20	Periodic Lattices Part 1	[Sh.] Chapter 13: all.
L21	Periodic Lattices Part 2	[E&R] Chapter 13: Sec. 1–7. [Li.] Chapter 8: Sec. 1–4. [Ga.] Chapter 4: supplements; Chapter 13: all. [Sh.] see Liboff
L22	Metals, Insulators, and Semiconductors	
L23	More on Spin	<No readings for this session.>
L24	Entanglement: QComputing, EPR, and Bell's Theorem	<No readings for this session.>
E3	Final Exam	