

**Modern Physics - Physics 60**  
**Tentative Calendar - Fall 2020**

24	<b>Oscillations and Waves</b> Oscillations Read: 1.1,2. Do: 1.1-9.	26	<b>Oscillations and Waves</b> Waves Read: 1.3. Do: 1,10,11,12.	28	
31	<b>Special Relativity</b> Lorentz Transformation Read: 2.1-4. Do: 2.1-8,10,11.	2		4	<b>Special Relativity</b> Intervals and Causality Read: 2.5,6. Do: 2.12-17.
7	<b>Labor Day</b>	9	<b>Special Relativity</b> Velocity Transformation Read: 2.7. Do: 2.18-22.	11	<b>Special Relativity</b> Energy and Momentum Read: 2.8. Do: 2.23-29.
14	<b>Special Relativity</b> Energy and Momentum Read: 2.9. Do: 2.30-33.	16	<b>Special Relativity</b> Invariants Read: 2.10. Do: 2.34,35.	18	<b>Special Relativity</b> Review Read: 2.1-10. Do: 2.36-43.
21	<b>Nuclear Decay</b> Read: 3.1,2. Do: 3.1-6.	23		25	<b>First Exam</b> <i>Chap: 1-3</i>
28	<b>Waves as particles</b> Photons Read: 4.1-5. Do: 4.1-11.	30	<b>Waves as particles</b> Fields and Photons Read: 4.6,7. Do: 4.12,13,14.	2	<b>Waves as particles</b> Meaning of the wave function Read: 4.8. Do: 4.15-17.
5	<b>Particles as waves</b> Electrons Read: 5.1-3. Do: 5.1-12.	7	<b>Quantum Mechanics</b> Linear Operators Read: 6.1,2. Do: 6.1-9.	9	<b>Quantum Mechanics</b> Inner Product, Expectation Value Read: 6.3,4. Do: 6.10-14.
12	<b>Quantum Mechanics</b> Quantum measurement Read: 6.5,6. Do: 6.11-20.	14		16	<b>Quantum Mechanics</b> Time evolution Read: 7.1,2,3. Do: 7.1-4.
19	<b>Quantum Mechanics</b> Stationary States Read: 7.4. Do: 7.5-8,14,15.	21		23	<b>Quantum Mechanics</b> General Solution Read: 7.5. Do: 7.9,10.
26		28	<b>Quantum Mechanics</b> Identical Particles Read: 8.3. Do: 8.5-8.	30	
2	<b>Second Exam</b> <i>Chap: 4-8</i>	4	<b>Classical Thermodynamics</b> Kinetic Theory, Heat Read: 9.1,2,3,4. Do: 10.1-8.	6	<b>Classical Thermodynamics</b> First Law of Thermodynamics Read: 9.5,6,7. Do: 9.9-12.
9	<b>Classical Thermodynamics</b> Heat Transfer Read: 9.9. Do: 9.13-15.	11		13	<b>Statistical Mechanics</b> Boltzmann Distribution Read: 10.1,2. Do: 10.1-3.
16	<b>Statistical Mechanics</b> Distribution of speeds Read: 10.3. Do: 10.4-6.	18	<b>Statistical Mechanics</b> Partition Function Read: 10.4-7. Do: 10.7-11.	20	<b>Statistical Mechanics</b> Partition Function Read: 10.4-7. Do: 10.7-11.
23	<b>Statistical Mechanics</b> Indistinguishable Particles Read: 10.4-7. Do: 10.12-14.	25	<b>Thanksgiving</b>	27	<b>Thanksgiving</b>
30	<b>Final Exam</b> 10:30 - 12:30	2		4	