

# Calendar of Topics

MONDAY	WEDNESDAY	FRIDAY
1/23 7.1-7.4 Introductions	1/25 8.1-8.3 Partial Derivatives, 3-D Schrödinger Equation	1/27 8.1-8.3 Partial Derivatives, 3-D Schrödinger Equation
1/30 8.5-8.6 Quantization Angular Momentum	2/1 8.5-8.6 Spherical Harmonics & Legendre Functions	2/3 8.5-8.6 Energy Levels in the Hydrogen Atom & Hydrogenic Atoms
2/6 8.7-8.10 Wave Functions & Mathematica	2/8 Mathematica Workshop	2/10 9.1-9.4 Zeeman Effect & Fine Structure
2/13 10.1-10.5 Multi-electron Atoms, Pauli Exclusion Principle	2/15 10.6-10.9 Electron Configurations & the Periodic Table	2/17 Ch 8 - 10 Review
2/20 Ch 8 - 10 Exam 1	2/22 11.1-11.3 Radiation by Classical Charges, Transitions	2/24 11.6-11.9 Spontaneous Emission, Selection Rules & Lasers
2/27 12.1-12.5 Molecular Bonding	3/1 12.1-12.5 Molecular Bonding	3/3 12.7 Molecular Bonding & Spectra
3/6 15.1-.5 & TRex 9.1-9.2 Intro to Statistical Mechanics & The Boltzmann Distribution	3/8 TRex 9.2-9.3 The Boltzmann Velocity Distribution & Heat Capacity	3/10 TRex 9.4 The Boltzmann Speed & Energy Distribution
3/14 ←	3/16 Vernal Equinox 4/20 12:48 am <b>SPRING BREAK</b>	3/18 →
3/13 TRex 9.5-9.6 Fermi-Dirac Statistics	3/15 TRex 9.5-9.6 Fermi-Dirac Statistics	3/17 TRex 9.5-9.6 Fermi-Dirac Statistics and Electrical Conductivity
3/27 TRex 9.7 Bose-Einstein Statistics: Blackbody Radiation	3/29 TRex 9 BE Stats: Heat Capacities	3/31 TZDII 11 & 12 and TRex 9 Review for Exam 2
4/3 13.2-13.5 Bonding in Solids, Crystals Electronic Bands	4/5 13.7, 13.9 Electron Conductivity in Solids	4/7 13.12 Bose-Einstein Condensates
4/10 14.1-14.5 Semiconductors, Diodes & FET's	4/12 14.7 Semiconducting Devices STM's & Flash Memory	4/14 16.1-16.23 Properties of the Nucleus
4/17 16.3-16.6 The Nuclear Force & Potential	4/19 16.7-16.9 Binding Energy, Nuclear Shell Model, Mass Spectrometer	4/21 17.1-17.3 Radioactive Decay
4/24 17.4-17.6 $\alpha$ & $\beta$ Decay	4/26 Nuclear Fission & Fusion	4/28 18.1-18.4 Elementary Particles, Antiparticles, Fundamental Forces
5/1 18.5-18.10 The Quark Model	5/3	5/5

THIS CALENDAR IS SUBJECT TO CHANGE!

Final Exam: 8:30 am, Wednesday, May 9, 2012