

Physics Course Outline

2008 - 2009

Date	Unit	Reading Assignment	Lab / Class Activity
Sep. 10	Motion	Chapter 2: A Mathematical Toolkit	Physics Lab 2: Mystery Plot (p. 32)
Sep. 17		Chapter 3: Describing Motion	Lab 3-1: Analyzing Motion
Sep. 24		Chapter 4: Vector Addition	Lab 4-1: Addition of Vector Forces
Oct. 1		Chapter 5.1-5.2: Graphing Motion & Velocity	Physics Lab 5: Ball and Car Race (TB p. 100)
Oct. 8		Chapter 5.3-5.4: Acceleration and Free Fall	Lab 5-1: Accelerated Motion
Oct. 15		(PSATs -- no class)	
Oct. 22	Forces	Chapter 6: Forces	Lab 6-2: Friction
Oct. 29		Chapter 7.1-7.2: Two Dimensions & Projectiles	Lab 7-1: Projectile Motion
Nov. 5		Chapter 7.3 & Supp: Circular Motion	Lab 7-3: Torques
Nov. 12	Mechanics	Chapter 8: Universal Gravitation	Lab 8-1: Kepler's Laws
Nov. 19		Chapter 9: Momentum and Its Conservation	Lab 9-1: Conservation of Momentum
Nov. 26		(Thanksgiving -- no class)	
Dec. 3		Chapter 10: Energy, Work, Simple Machines	Lab 10-1: Pulleys
Dec. 10		*** Review Chapters 2-10 ***	*** Practical Lab Exam ***
*** Semester Break ***			
Jan. 7	Energy & States of Matter	Chapter 11: Energy	Lab 11-1: Conservation of Energy
Jan. 14		Chapter 12: Thermal Energy	Lab 12-2: Graphing the Efficiency of Solar Collectors
Jan. 21		Chapter 13: States of Matter	Lab 13-1: Archimedes Principle
*** Science Fair Break ***			
Feb. 18	Waves & Sound	Chapter 14: Waves and Energy Transfer	Physics Lab 14: Waves on a Coiled Spring (TB p. 330)
Feb. 25		Chapter 15: Sound	Lab 15-2: Resonance in an Open Tube
Mar. 4	Light	Chapter 16: Light	Physics Lab 16: Light Ray Paths (TB p. 377)
Mar. 11		Chapter 17: Reflection and Refraction	Lab 17-1: Reflection of Light
Mar. 18		Chapter 18: Mirrors and Lenses	Lab 18-2: Convex and Concave Lenses
Mar. 25		Chapter 19: Diffraction & Interference	Lab 19-1: Double-Slit Interference
April 1	Electricity	Chapter 20: Static Electricity	Physics Lab 20: What's the Charge? (TB p. 467)
April 8		(Easter Break -- no class)	
April 15		Chapter 21: Electric Fields	Lab 21-1: The Capacitor
April 22		Chapter 22: Current Electricity	Lab 22-1: Ohm's Law
April 29		Chapter 23: Series and Parallel Circuits	Lab 23-2: Parallel Resistance
May 6	Magnetism	Chapter 24: Magnetic Fields	Lab 24-3: Variation in the Strength of Electromagnets
May 13		Chapter 25: Electromagnetic Induction	Lab 25-1: Electromagnetic Induction 1
May 20		Chapter 26: Electromagnetism	Lab 25-2: Electromagnetic Induction 2
May 27		*** Review Chapters 11-26 ***	*** Practical Lab Exam ***