

Three Rivers Community College Course Syllabus: Physics 221, Fall 2010/BLS

Text: Physics for Scientists and Engineers by Douglas Giancoli, 4th edition

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WEEK	TOPIC
1, 8/30	Units/Measuring/ Kinematics, Scalars, Vectors Lab 1: Measuring length, mass and calculating density.
2, 9/13	Equations of Displacement, Velocity, Acceleration, Free Fall Lab 2: The Force Table, equilibrium of forces
3, 9/20	Projectile Motion, Relative Motion Lab 3: Measuring projectile motion using the spring gun.
4, 9/27	First Exam: Newton's Laws of Motion, Dynamics, FBD's Lab 4: Measuring Gravity with the Atwood Machine
5, 10/4	Friction, Uniform Circular Motion, problem solving Lab 5: Measuring Coefficient of Friction
6, 10/11	Work/Energy Concepts Lab 6: Hooke's Law/ determining spring constant
7, 10/18	Conservation of Energy Lab 7: Conservation of Kinetic and Potential Energy
8, 10/25	Second Exam: Equilibrium of Forces and Moments Lab 8: Bird on the Wire/ vectors and equilibrium
9, 11/1	Material Properties, Stress and Strain, solids and fluids Lab 9: Moment Balance, rotational equilibrium
10, 11/8	Linear Momentum, Conservation of Momentum and Energy Lab 10: Elastic and Inelastic Collisions
11, 11/15	Angular Quantities, Rotational Dynamics, Torque Lab 11: Determining Moment of Inertia
12, 11/22	Third Exam: Conservation of Angular Momentum No Lab
13, 11/29	Simple Harmonic Motion Lab 12: Natural Frequency of Simple Mass/Spring System
14, 12/6	Oscillations and Wave Motion, Super Position and Resonance Lab 13: Determining Resonance of String
15, 12/13	Final Exam