

Student Learning Outcomes PHYS 250

15 March 2007

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	Outcome: At the end of the course the student will be able to	How measured
1	Describe the motion of a particle in one, two, or three dimensions using vectors and the concepts of force, acceleration, velocity and displacement.	Exams, Quizzes, Homework
2	Apply the concepts of energy conservation, potential energy, kinetic energy and work to solve problems	Exams, Quizzes, Homework
3	Apply the concepts of momentum conservation and center of mass to solve problems	Exams, Quizzes, Homework
4	Analyze the motion of a particle undergoing rotational motion in terms of torque, angular momentum, angular velocity, angular acceleration, angular displacement, and kinetic energy.	Exams, Quizzes, Homework
5	Analyze the motion of a system of particles simultaneously undergoing translational and rotational motion.	Exams, Quizzes, Homework
6	Analyze the motion of particles using Newton's Law of universal gravitation.	Exams, Quizzes, Homework
7	Analyze the motion of particles experiencing position dependent and time dependent forces using the tools of calculus	Exams, Quizzes, Homework
8	Solve problems in fluid statics and dynamics	Exams, Quizzes, Homework
9	Analyze wave motion for periodic waves and for pulses.	Exams, Quizzes, Homework
10	Explain what longitudinal and transverse waves are	Exams, Quizzes, Homework
11	Explain and calculate resonant modes of waves	Exams, Quizzes, Homework
12	Analyze and present the results of actual measurements made in the laboratory including an error analysis	Lab Reports
13	Determine if the data taken in the laboratory is described by the theoretical model given and discuss discrepancies	Lab Reports