

PHYSICS 190-8405 LAB SYLLABUS

Mechanics and Thermodynamics

Cuyamaca College - Spring 2018

Lab Instructor: Thomas Nguyen

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Cuyamaca College Facebook:

<https://www.facebook.com/CuyamacaCollege/>

Lab Time: Friday 12 - 2:50pm in Room H-223

Objectives:

Design to help students recognize and understand more about the basic concepts (covered in class) concerning kinematics, dynamics, energy, momentum, gravitation, oscillations and thermodynamics.

1. Design experiments using the scientific method.
2. Collect and analyze data using both traditional and computer data acquisition methods; interpret and analyze numerical data, including appropriate use of error propagation, units and significant figures, and generate a visual representation of the data.
3. Evaluate and interpret the experimental results using concepts covered in class.

Tentative Outline:

Feb 2, 2018	Lab 0: Measurement
Feb 9, 2018	Lab 1: Motion in 1D
Feb 16, 2018	NO SCHOOL

Feb 23, 2018	Lab 2:Freefall
Mar 2, 2018	Lab 3: Projectile Motion
Mar 9, 2018	Lab 4: Friction
Mar 16, 2018	Lab 5: Uniform Circular Motion
Mar 23, 2018	Lab 6: Ballistic Pendulum
Mar 30, 2018	NO SCHOOL
April 6, 2018	Lab 7: Impulse & Momentum
April 13, 2018	Lab 8: Torque & Rational Inertia
April 20, 2018	Lab 9: Simple Harmonic Motion
April 27, 2018	Lab 10: Density & Buoyant Force
May 4, 2018	Lab 11: Specific Heat of a Metal
May 11, 2018	Lab 12: Heat Engine
May 18, 2018	Lab 13: Blackbody Spectrum

Grading:

20 points per lab. Total points will be transferred as 100 points or 25% to grading scale of Mr. David Tibbets - Physics 190-8405 class.

Academic Accommodations:

Students with disabilities who may need accommodations in this class are encouraged to notify the instructor and contact Disabled Student Services & Programs (DSPS) early in the semester so that reasonable accommodations may be implemented as soon as possible. DSPS&S website is <http://www.cuyamaca.edu/dsps/>