Course Information Form (CIF)

Course Code: PHY 129 (IAI P1 901L)
Course Title: How Things Work Laboratory

Department: Natural Sciences
PCS Code: 1.1 - Baccalaureate/Transfer
CIP Code: 40.9996
Repeatability: 0

Effective Date: Summer 2026

Credit Hours

Catalog Notation: 0-2-1
Credit Hour Distribution:

Lecture: 0	Lab: 2	Clinical: 0	**Total: 1**

General Course Information

Catalog Description

Laboratory course to accompany PHY 120 for the purpose of satisfying general education requirements. Explores everyday phenomena: musical instruments, photography, flight, electricity, bicycles, engines, etc. to examine how they work.

General Course Objectives

To give non-science majors an appreciation for and understanding of the physical world by exploring everyday phenomena using an inquiry approach.

Minimum Placement Levels

English	Reading	Math
None	Placement out of CCS 098	None

Prerequisites

Credit or concurrent enrollment in PHY 120

Methods of Evaluation

13-16 laboratory reports.

Instructional Materials and Additional Supplies

None.

Course Content

General Learning Outcomes (GLOs)

- Reasoning and Inquiry: Students will demonstrate the ability to solve problems using deductive reasoning and logic, quantitative reasoning, or the scientific method.

Course Segments and Student Learning Outcomes

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Laws of Motion	1. Test differences in inertia. 2. Analyze constant velocity and changing velocity. 3. Measure height and time in free fall motion.	0	4	0
Equilibrium	1. Set up and examine systems of equilibrium.	0	2	0
Energy	1. Examine different types of energy.	0	2	0
Momentum	1. Construct apparatus to reduce force for a given impulse. 2. Measure impulses in different scenarios.	0	4	0
Fluids	1. Examine the relationship between pressure, volume, and temperature. 2. Examine differences in pressure based upon depth. 3. Examine properties of floating objects. 4. Examine the components responsible for producing lift.	0	4	0
Phases	1. Examine phase transitions. 2. Predict outcome of phase transition.	0	2	0
Heat	1. Examine forms of heat flow.	0	2	0
Electricity	1. Measure power consumption. 2. Identify electrical safety components.	0	4	0
Magnetism	1. Examine magnetic objects. 2. Construct an electromagnet.	0	2	0
Sound	1. Examine different musical instruments and their components.	0	2	0
Light	1. Calculate light efficiency. 2. Examine different light sources.	0	2	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
0	30	0