

# Common Course Outline

## PHYS 111

### Physical Science Lab

1 Semester Hour

## The Community College of Baltimore County

### Description

**PHYS 111--1 Credit--Physical Science Lab** gives a general understanding of the scientific method and its application to the real world; draws principles from basic physical science (physics/chemistry); provides the laboratory accompanying PHYS 100 or PHYS 105.

**1 credit: 3 laboratory hours per week.**

**Prerequisite or Corequisite: PHYS 100 or PHYS 105**

### Overall Course Objectives

Upon completion of this course, the student will be able to:

1. work collaboratively to collect and record observations from experiments in the laboratory; ( I, III, VI, 1, 2, 3, 6)
2. write formal lab reports;. (II, 3, 4)
3. analyze data from each experiment done in the lab and relate the results to the basic principles learned in class; (I,III,VI,1,2,3)
4. read measuring instruments, such as the meterstick, vernier caliper, laboratory balance, etc.; (I, III, 1, 2, 3)
5. plot linear graphs and determine the slope and y-intercept from them; and (I, III, 1, 2, 3)
6. use a computer for data analysis. (IV, V, VI, 3, 5, 6)

### Major Topics

- I. Linear Graphs
- II. Measurements
- III. Calculation of “g”, acceleration of gravity
- IV. Equilibrium of Forces
- V. Projectile Motion
- VI. Torque
- VII. Energy
- VIII. Rotation
- IX. Density
- X. Specific Heat

## **Course Requirements**

Grading/Exams: Grading procedures will be determined by the individual faculty member teaching the course but include the following:

1. a minimum of two examinations.
2. a minimum of two quizzes.
3. a final examination.
4. a minimum of ten written laboratory reports.

Writing: Written laboratory reports will be required on a more or less weekly basis.

## **Other Course Information**

This course and PHYS 100 or PHYS 105 may be used to fulfill four credits of the General Education requirement in Biological and Physical Sciences.

Individual faculty members may include additional course objectives/topics.

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