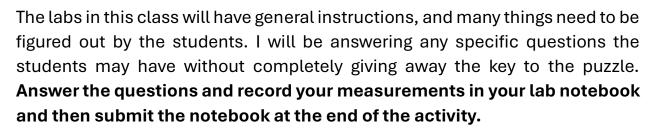


#### Manual to Lab 3: PHY2048C.

## Florida State University - Republic of Panama

# **Mass and Spring**

## About labs in this class



## **About this lab**

In this lab you will use a spring to determine the mass of the mystery weights you have been provided with. You will do this by measuring the elastic constant of the spring. You are provided with all the tools needed for this experiment. You will need the stopwatch of your phone.

**Activity 1.** measure how the equilibrium height changes when different masses are hung from the spring.

Question 1. Draw a free-body diagram of the spring at equilibrium.

**Activity 2.** Determine the elastic constant of one of the springs with at least a 10% error bar. Using more masses will narrow down the spread of the obtained value.

**Activity 3.** Measure the mystery mass with a minimum of a 10% error. You will need to use multiple springs to make multiple measurements and reduce the error.

