Miami Dade College

Course Description

PHY1005L | Physics with Applications 2 Lab| 1.00 credit

Laboratory for PHY1005. Prerequisite: PHY1004; corequisite: PHY1005.

Course Competencies:

Competency 1: The student will demonstrate an ability to make measurements in the laboratory by:

1. Using various instruments to make measurements that relate to the functioning of simple physical systems in the laboratory
2. Organizing and recording instrument readings onto a data sheet for each experiment in the lab
3. Estimating and recording the possible measuring errors with selected measurements in the lab

Competency 2: The student will demonstrate knowledge of the rudiments of laboratory report writing by:

1. Submitting completed written reports which reflect:
    a. Organized presentation of materials
    b. Calculations correctly done
    c. Graphs correctly plotted, with calculations of slopes and other parameters, when needed
    d. In selected labs, calculations indicate how measuring errors can affect the results of an experiment
    e. Interpretations of results that are consistent with reported observations

Competency 3: The student will demonstrate an awareness of the importance of observations and measurements as the basis for scientific theory by:

1. Reporting his/her actual observations even if they conflict with his/her preconceptions; when called for proposing a formula or simple generalization that applies to the measurements made

Competency 4: The student will demonstrate an ability to apply and verify physics principles in a laboratory setting by:

1. Performing experiments in electricity, magnetism, and optics

Learning Outcomes:

- Communicate effectively using listening, speaking, reading, and writing skills
- Solve problems using critical and creative thinking and scientific reasoning
- Formulate strategies to locate, evaluate, and apply information