

Miami-Dade Community College
PHY 2053L

Course Description: _ Laboratory course for PHY 2053.

The physics lab courses are one-credit courses designed to be taken in conjunction with a physics lecture. A different experiment is performed each week with topics chosen to correspond with the material being studied in the lecture. Each experiment is designed to be completed in about 2 contact hours.

Corequisites: PHY2053

Course Competencies:

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| Competency 1: | The student will demonstrate an ability to make measurements in the laboratory by: <ol style="list-style-type: none">using various instruments to make measurements which relate to the functioning of simple physical systems in the laboratory;organizing and recording instrument readings onto a data sheet for each experiment in the lab;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 submitting completed written reports which reflect: <ol style="list-style-type: none">an organized presentation of materials;calculations correctly done;graphs correctly plotted, with calculations of slopes and other parameters, when needed;in selected labs, calculations which indicate how measuring errors can affect the results of an experiment;interpretations of results which 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: <ol style="list-style-type: none">reporting his/her actual observations even if they conflict with his/her preconceptions;when called for, proposing a formula or simple generalization which applies to the measurements made. |
| Competency 4: | The Student will demonstrate an ability to apply and verify physics principles in a laboratory setting by <ol style="list-style-type: none">performing experiments in the areas of kinematics, mechanics, and waves. |