

**Miami-Dade Community College**  
**PHY2054L**

Course Description: \_ Laboratory course for PHY 2054.

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: PHY2054

Course Competencies:

Competency 1:	The student will demonstrate an ability to make measurements in the laboratory by: <ol style="list-style-type: none"><li>using various instruments to make measurements that relate to the functioning of simple physical systems in the laboratory;</li><li>organizing and recording instrument readings onto a data sheet for each experiment in the lab;</li><li>estimating and recording the possible measuring errors with selected measurements in the lab.</li></ol>
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"><li>an organized presentation of materials;</li><li>calculations correctly done;</li><li>graphs correctly plotted, with calculations of slopes and other parameters, when needed;</li><li>in selected labs, calculations that indicate how measuring errors can affect the results of an experiment;</li><li>interpretations of results that are consistent with reported observations.</li></ol>
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"><li>reporting his/her actual observations even if they conflict with his/her preconceptions;</li><li>when called for, proposing a formula or simple generalization that applies to the measurements made.</li></ol>
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"><li>performing experiments in the areas electricity, magnetism, and optics.</li></ol>