**Course Competency**

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

1. Using various instruments to make measurements which 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.

**Learning Outcomes**

- Communication
- Critical thinking
- Information literacy

**Competency 2:** The student will demonstrate knowledge of the rudiments of laboratory report writing by submitting completed written reports by:

1. Organizing presentation of materials.
2. Ensuring calculations are correctly done.
3. Making sure graphs are correctly plotted, along with calculations of slopes and other parameters, when needed.
4. Indicating how measuring errors can affect the results of an experiment.
5. Interpreting 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:

1. Reporting his/her actual observations even if they conflict with his/her preconceptions.
2. Proposing a formula or simple generalization which applies to the measurements made.