

## Guidelines for Conducting Labs

### Every Lab should be prepared to have the following elements:

1. Each lab should be organized to group students in **teams** of 2 students or more.
2. Each lab experiment should clearly state the objectives of the conducted experiment.
3. In preparing the experiment objectives, instructors need to take into account some of the important program outcomes that need to be addressed in labs covering the course outcomes. Examples of program outcomes that need to be emphasized in the lab :
  - a. Outcome(b): an ability to design and conduct experiments, as well as to analyze and interpret data
  - b. Outcome(k): an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.
4. Students are required to submit **a lab report** for each conducted experiment. This lab report must contain the following elements:
  - a. Experiment Objectives
  - b. Procedure and Techniques used in conducting the experiment
  - c. Analysis & Interpretation of Data
  - d. Tools used in the experiment
  - e. Team Members Discussions & Conclusions: This part should document
    - i. the reflection of each team member on the conducted experiments and on the analysis of data
    - ii. the role of team members in conducting the experiment
    - iii. the conclusions reached
    - iv. the difficulties faced and things learned
    - v. the assessment by students on achievement of experiment objectives.