

# Instructions for Preparing Laboratory Reports

## PHYSICS-III

### Biomedical Engineering

Contrary to laboratory reports in previous Physics subjects, there won't be any forms for preparing laboratory reports for Physics III. The goal of the laboratory report is to explain what experiments you did, what you learned, what the results meant and to answer all the questions you may find in the practice scripts.

The basic parts of a Laboratory Report are:

1. **Title page.** Includes the actual title of the experiment, your name and the name of your partner (if any), the instructor's name, the details about when the experiment was performed and the date the report was submitted.
2. **Introduction.** Briefly explain the purpose of the experiment, what are the hypothesis and pose the questions to be answered.
3. **Materials.** Lists the equipment used to complete the experiments
4. **Methods.** Includes a description of the steps and procedures followed. It must be sufficiently detailed that anyone could replicate your experiment.
5. **Data.** Presents the numerical data obtained, with tables and plots. It only includes the facts, not any interpretation.
6. **Discussion & Analysis.** Contains any analysis or calculations based on the data and discusses mistakes, errors and possible improvements.
7. **Results.** Describes the meaning of the data and answer the proposed questions.
8. **Conclusions.** Summarizes the whole experiment and shows if the results agree or disagree with the hypothesis (could be very short).

Your laboratory report can be handwritten or typewritten and is expected to have around five pages without the title page (eight maximum), though you may add extra pages as an appendix if you need to include special data analysis, analytical calculations or references. Scientific writing has to be clear, simple, logically structured, accurate, objective, impartial and terse.

If you are in doubt about what to include and what to leave out or whether you should suck a wire, point a laser to a classmate's eye, or anything else, please **ASK YOUR INSTRUCTOR FIRST**.

**ALWAYS REMEMBER THAT SAFETY FIRST**