Formal Lab Reports

- The Title page
- The Purpose, objective or goal
- Background information
- Materials
- Procedure
- The Results
- The Discussion
- Literature Cited

The title page

Your University

Title of the lab

Subtitle

Your Name

Course Name and Number

Professor Name

Paper Due Date

THE PURPOSE

The purpose should be clearly stated with details. However 2- 4 sentences is sufficient



ABSTRACT

Briefly describe, in your own words, how you conducted the lab.

HYPOTHESIS

- Directly related to problem and to background information
- When possible, state as an if/then statement the dependent and independent variable should be indicated

BACKGROUND INFORMATION

- All theory which pertains to the concept being studied should be included. This includes, but is not limited to, definitions of new words, equations, with variables defined
- The controls in the experiment should be indicated
- Everything included should be relevant to the experiment being performed
- Spelling and grammar count!

MATERIALS

- A bulleted list
- complete
- Quantity included
- Sketch of the experimental set up should follow the list

PROCEDURE

This is one area in which the formal lab report differs from your lab notebook.

The procedure is written as a past tense narrative with no names or personal pronouns.

Example: not "I lighted the Bunsen burner" but "the Bunsen burner was lighted."

Bulleted or numbered lists of steps will earn zero point

DATA

- All observations, both quantitative and qualitative, should appear in the data section
- Data tables should be clear, labeled with all quantities and units.
- Tables should have a title: Table 1. etc

ANALYSIS

- 1. All calculation types should be shown at least once
- 2. All units should be included through out the section
- 3. Graphs must be labelled with an appropriate title, axis titles, units indicated
- 4. Independent and dependent variable should be on the appropriate axis

DISCUSSION

Includes

- a conclusion statement
- Percent error analysis
- Discussion of areas of the experimental procedure that led to error in final values
- Any questions from the lab handout should also be answered, if you have not already included those answers in one of the required sections.

References/ works cited

- This should be in MLA format from now on.
- In text citations are required when you quote more than 4 words!

Length of the report:

- Lab reports will vary in length,
- it is expected that no report be longer than about 8 pages of text (and may well be shorter.)
- A concise report will likely be clearer.
- Avoid duplicate information unless absolutely necessary.
- Do not repeat experimental procedure
 descriptions when the procedure in part X was
 the same as in part Y. Simply refer back to the
 procedure used earlier.