NOTES ON REPORT WRITING

WRITING CONVENTIONS

Use 1 ¼ inch margins on the left side of the paper and 1 inch margins on the other three sides.

**Double space the report**, except long direct quotes, which may be single spaced.

Place illustrations (including graphs, tables, diagrams, and digital photos) close to the text they illustrate, on the same or following page whenever possible. **Material that is not original must be referenced.**

Avoid imprecise phrases. For instance, instead of “The error was very large…” write “The error was 10%…”. Use quantitative descriptions whenever possible.

Do not use footnotes. Reference either by a number in square brackets, which is keyed to the reference list, or place the authors’ names and publication date in brackets in the text.

Don’t assume anything stated in the abstract is retained in the reader’s mind when writing the other sections. Ideally, write the abstract last, using the report as a reference.

Introduce and define each abbreviation. For example, “The flow rate was steady at 400 standard cubic feet per hour (SCFH).” After the first defining usage, use the abbreviation.

Define each variable, particularly in equations, or make a nomenclature list.

Introduce, define and discuss important terms in the Background/Theory section. This is how your understanding of the material is demonstrated.

All figures, tables, and graphs have numbers and titles together such as:

*Table 1: Values of Temperature vs. Time for Three Flow Rates*

Table titles appear above the table.

Figure and graph titles appear below the figure or graph.

Tables and figures are numbered separately: Table 1, Table 2, etc; Figure 1, Figure 2, etc.

**GRAPHS**

The formal and informal reports no doubt contain some visual aids such as graphs, tables, figures, etc. All visual aids in the report and in the appendices must be labeled and referred to in the text. Graphs are plotted according to the following guidelines. Create graphs using the appropriate coordinate axes. These are:
Cartesian with linear divisions for equations of the type: \( y = mx + b \),
log-log for equations of the type \( y = ax^n \), and
semi-log for equations of the type \( y = ae^x \).

Choose scales so that one division equals 1, 2, 4, 5, or 10 units or some power of ten times these values.

The independent variable is plotted on the abscissa (x-axis) and the dependent variable is plotted on the ordinate (y-axis).

Choose scales so that the resultant line makes an angle of \( 20^\circ \) to \( 60^\circ \) from the x-axis.

Label the names of the variables along the axes so they read from the bottom and from the left side. **Include units on each axis.**

Points determined experimentally are represented by a small circle, or if more than one curve is plotted on the same sheet, by small triangles, squares, or some other distinct symbol. Be sure that each curve is distinguishable, particularly if printing in color.

Curves plotted from equations have no indication of the calculated points.

The data obtained from the experiments in this course usually are related by some physical relationship. Therefore, the line representing this relationship is either a straight line or a smooth curve. Be sure to take note of and explain any data points that obviously do not fit the trend.

Do not extrapolate the lines beyond the data collected unless this can be justified in the report.

Present the title, labels on axes, and labels of plot lines in clear, concise language using standard engineering nomenclature. Do not use the variable in place of what it represents. For instance for a plot of velocity vs. time, do not use \( V \) vs. \( t \). Variables represent different quantities in different situations. Remember the paper is being written for your engineering peers who are unfamiliar with this particular lab.

If the experiment involves the determination of an equation, show this on the graph.

**REFERENCES**


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Revised by Christi Saari 8/02