

## Guidelines For Reporting Laboratory Work

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Reports will emphasize experimental work and concisely summarize that work through an informal reporting style that *expresses your individual grasp and understanding*. They will normally consist of the following items:

1. A cover sheet with the usual information (layout is up to you): Experiment title; class; student's name; instructor's name and due date; pages should be numbered. If you worked with other students, they should be credited.
2. The report itself, consisting of an orienting introduction, body and conclusion(s).
3. Any relevant data transcribed from your supporting engineering notes (see separate handout regarding how to keep and engineering notebook, their purpose and content).

Each student must individually prepare their own reports, which must be organized, neat and legible; computer generated typed work is preferred but not mandatory. Each report should be complete, thorough, understandable and literate. You may use a concise summary style with clear discussions included where necessary. Key your major block headings to correlate with the system used in the lab assignment. There is no minimum length requirement

Introduce the lab generally and, where applicable, for each task specifically. Where appropriate, include well-drawn and labeled engineering schematics (not wiring diagrams) for each significant circuit investigated. Scope and depth of what you report on depends on what you were asked to do, learn or become familiar with.

### **Documentation:**

Space must be provided in the flow of your discussion for any tables or figures. Reports are much easier to read and follow when done this way. Do not collect figures and drawings in a single appendix at the end of the report.

Use good drafting practice when producing figures, graphs, drawings or schematics and label them as figures for easy reference. Note that if you include a figure, it must be referenced in your discussion. Any two-dimensional graphs must have labeled scales and units. Pictures of test equipment waveforms should have X and Y axis quantities labeled or clearly evident from the screen shot.

If relevant, you may use Cadence Capture to prepare schematics, or they may be drawn by hand.. They should always be labeled and referenced in your report. Graphics requiring drawn straight lines should be done with a straight-edge where possible (resistors for example can be drawn freehand). Well-drawn free-hand sketches are permissible for schematics, but a template is encouraged, especially for bodies like logic symbols (typically 1/2 or 3/8 scale).

Transcribe only relevant data from your engineering notes into your report.

### **Notes on style and perspective:**

Remember, you are reporting on something done in the past. Therefore, most of what you write will be expressed in the past tense. To aid you in resolving questions about tenses, the following summary should be helpful:

1. Experimental facts should always be given in the past tense.
2. Discussions or remarks about the presentation of data should mainly be in the present tense.
3. Discussions of results can be in both the present and past tenses, shifting back and forth from experimental facts to the presentation.
4. Any specific conclusions or deductions should be expressed in the past tense, general truths in the present tense.

Grading will be based on completeness, clarity, understanding and justification of results.