

PSPICE ASSIGNMENT REQUIREMENTS

(also see the handout: "PSPICE SAMPLE REPORT")

REPORT FORMAT:

A neat and well-organized report should be turned in for each PSPICE assignment. The report should include the following sections:

TITLE PAGE - Containing your name, the course number, the assignment number, and the due date (as a minimum)

PSPICE assignments generally contain multiple parts. **For each part** of the assignment include the following sections:

PROBLEM DESCRIPTION - Provide the original information given with the problem, including circuits, instructions, etc.

PRELIMINARY ANALYSIS - Many problems will be analyzed or designed by hand and then verified by PSPICE. This work should be included in this section. Be sure to use the same variable names in your hand analysis as are used in the schematic. PSPICE analyses also sometimes require some calculations to set up an analysis (for example, calculating the length of time to use for a transient analysis). If so, show these calculations in this section or on the schematic.

SCHEMATIC - Follow the guidelines listed above.

OUTPUT FILE - This file tends to get very long, so only include the pages showing the NETLIST (usually page 1) and any pages with required outputs (such as a required voltage or current). The output file is **not required** if the results are graphical and will be displayed using PROBE.

GRAPHS - Follow the guidelines listed below.

ANALYSIS/DISCUSSION - If hand results are being compared to PSPICE results, it is generally best to compare the results in a table. Discuss the results of each graph. Explain any discrepancies in any of the outputs. If you were attempting to prove a theorem or verify a design, state whether or not it was successfully proven or verified (be specific). You may also discuss problems you encountered or unique approaches used in your solution.

OTHER USEFUL INFORMATION:

Every **schematic** should follow the general guidelines below:

- List your name, the course number, the assignment number, and the due date.
- Include the problem number and a brief description of the problem (for example, what are you finding and how are you finding it).
- Letter or number each node.
- If a particular variable name is referenced by the problem, such as V_x , label it on the schematic.
- Show the value of each source on every schematic (these are not shown automatically).
- If a variable is varied, label the range and increment (such as $V1 = 0$ to $30V$ in $1V$ increments).
- Add comments to explain unusual features (for example, you might give a resistor a value of $100MEG$ to approximate an open circuit).

Every **graph produced by PROBE** should follow the general guidelines below:

- Label your name and the course number in a box somewhere on the graph.
- Include a descriptive title.
- Label each curve when multiple curves are graphed.
- Label key features on the graph.
- If cursors are used to make measurements, label the points used (when appropriate).
- Add any other labels that might enhance the graph.