LAB NOTEBOOK INSTRUCTION SUMMARY

Your Lab Notebook must be a bound (not spiral) quadrille-ruled notebook about 8½ by 11 inches.

WHAT YOU MUST DO:
1. Bring your Lab Notebook to every Lab.
2. All entries must be in ink. All pages must be numbered sequentially and dated.
3. Write everything pertaining to the experiment in your Lab Notebook in your own handwriting. Do this as you perform the experiment and/or as you do the calculations. (See exception below.)
4. Write your entry in narrative form. It is not a cook book and it is not an instruction sheet. It is a description of what you are doing written while you are doing it. Use the appropriate tenses.
5. Mention any problems or unexpected findings.
6. Sign and date every entry.

WHAT YOU MUST NOT DO:
1. Do not include any printed or Xeroxed material in your notebook. (See exception below.)
2. In particular, do not include the instruction sheet (lab handout) or any portion thereof.
3. Do not take any notes or perform any calculations on scratch paper for later inclusion in your notebook.
4. Never obliterate an entry so that it is unreadable. If something is clearly wrong, draw a line through it but leave it legible.

EXCEPTION:
Drawings on graph paper and computer printouts of your calculation may be glued, taped and/or stapled into your notebook. Do not include portions of the lab handouts or other printed material in your notebook. This is the only exception to the rules stated above.

WHAT YOU MUST INCLUDE:
The first page of the notebook must be a table of contents listing the title and page number of each subsequent entry. One page should be sufficient.

Each notebook entry must include the following (except as noted):
1. Title: This should correspond with the title in the Class Schedule. Don’t be creative here.
2. Purpose: This should be a statement in your own words of what you are planning to do.
3. Lab Partners: Give the full name of each lab partner.
4. Procedure: This should be a narrative telling exactly what you are doing. It should be in sufficient detail that a stranger could follow it and reproduce your experiment. A drawing of the apparatus is necessary in almost every case.
5. Theory: Derive, from first principles or definitions, any equations you use in your calculations. (Some experiments may not require this topic.)
6. Data with error bounds. Record your raw data before any calculation. Include the possible error bounds with every measured value.
7. Analysis: Calculate any computed results as needed to satisfy the purpose stated at the beginning of the entry. Remember, this must be done in the notebook, not on scratch paper.
8. Error Analysis: From your estimated error bounds as stated with your data entries, compute the possible error in your calculated results. Comparison of your result with an “accepted value” is not an error analysis. (You might want to discuss any particular sources of error, but this is not a substitute for calculating the appropriate error bounds.)
9. Conclusion: Summarize your results, including the error bounds. Mention anything interesting you discovered along the way. The conclusion should reflect the purpose. If the purpose of the experiment is to measure a numerical value, be sure to state the result of this measurement along with the appropriate error bounds.

Items 1 and 2 should be at the beginning of the entry. Item 9 should be at the end of the entry. It should summarize what you measured and calculated and it should be consistent with item 2. Items 3 – 8 will typically be intertwined as you go along. They are a narrative description of what you are doing, written while you are doing it. They should tell a story.

1/29/2007