

Keeping a lab notebook

Required as part of your project-adviser (PH481-2) grade

Put *all* work, including wild ideas and incorrect calculations,
directly into notebook

Make notebook *only* record of project

Could be very important for protection of IP

Describe your work & record data *as work is performed*

Paste or Scotch-tape loose sheets into notebook

Maintain and update a table of contents

Do as I say, not as I do

What is the purpose of the notebook?

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Recording details of experiments for future use

Documenting research

For later use

For finding errors in your procedures

For your successors

For the patent attorney (verify date of invention)

What goes into the notebook?

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List of equipment and supplies

Sketch of experimental setup including block diagrams of components and connections

Circuit and wiring schematics

Procedure

Instrument settings

Computer programs

Sources of errors and their values

Measurement resolution, noise, drift, other uncertainties

Observations

Results and discussion

Conclusions

Real world	Senior design
Bound notebook	Loose leaf OK
Entries in permanent ink	Pencil OK
Entries clear, legible, understandable, so co-worker can continue or duplicate	Entries clear, legible, understandable, so student can continue or duplicate
No erasures (strike out with single line)	Discreet erasures OK
Blank space filled with diagonal line	Blank space OK
Figures, data glued in as necessary	Scotch tape OK
Notes in strict chronological order	Additions OK but preferably dated or in colored pencil
Each page dated	Each entry or topic dated
Each page witnessed	Nah
Notebook property of company & left behind	Notebook left behind at discretion of research adviser
Notebook restricted to plant	Notebook not restricted

Details

Leave blank pages for table of contents

Number all pages

Initial and date every page or every new entry

Start each new experiment on a new page

Put heading on each page

Beginning of a new experiment?

Continuation of previous experiment?

Use lots of space

Draw lots of sketches

Wiring diagrams

Schematics

Do all calculations in the notebook