

Analysis of Lab Work: Effective Lab Notebooks

The Engineering Method of Technical Writing

Effective lab notebooks

The purpose of this assignment is to help you ensure that your lab notebook shows that *you know what you can do* and *what is and isn't working*. The assignment is split into two parts:

- Sample entries from your notebook, plus any statement you wish to make, are due **Wednesday, November 30**.
- Written reviews of other entries are due at 5pm on **Tuesday, December 6**.

Expectations for the lab notebook

Here is a synopsis of what the syllabus says about lab notebooks:

1. Each entry should be contemporaneous with the session it describes.
2. Each entry should record date, time, place, duration, and materials.
3. Whether your session was focused on a possible future text, creating a first draft, or editing an existing text, each entry should say what text you had in mind.
4. Each entry should record the primary goal(s) of the session, or if goal is unclear, the primary principles or practices that are in play.
5. Each entry should record thoughts and feelings that affect your fluency and production.
6. Each entry should close with very short assessments of how well you met your goal and how you felt about the session.

That's a lot of information! But you won't focus on everything at once:

- Early in the year you were focused on item 2. Most of you gathered high-quality information for your future self.
- Right now you are probably focusing on the effects of brief, daily sessions: Have you established a pattern of brief, daily sessions? If not, what are the barriers? If so, how is the pattern working?
- In the next month or two you will focus on the principles and practices that are our essential learning objectives.
- Toward the middle of the Spring term you will focus on the principles and practices that you will have mastered—at

least to a degree—and on the principles and practices around which you will plan your future development.

This assignment

In this assignment we share information about notebook entries. You'll get other pairs of eyes to give you feedback, and you'll get to borrow other's best ideas. You'll also, if you wish, have an opportunity to explain how you have designed your notebook entry or what aspects you'd like feedback on.

Here are your detailed instructions:

- A. Choose two entries from your notebook: one from October and one from November.
- B. If necessary, *anonymize* both entries so that your name does not appear.
- C. If you wish, *redact* (that is, cross out) any information you prefer not to share with your classmates and your instructor.
- D. If you wish, write a statement, of at most one page, which can *explain* what you are doing in your entries and *ask for feedback* on any aspects of special interest to you. (If your entries use abbreviations, please submit a statement that explains them.)
- E. Convert both entries and your statement to PDF and email it to nr@cs.tufts.edu by *11:59PM on Wednesday, November 30*. Please *place each entry on a separate page*, and likewise your statement (or just email me three PDFs).
- F. On *Friday, December 2*, you'll receive notebook entries (and possibly statements) from two other students. You'll also receive a handful of questions such as how easily you can read each entry, what you think of the information, what good ideas you can use in your own lab notebook, and what feedback you have for the authors. You'll answer those questions and send your replies by *Tuesday, December 6*.
- G. I will collate the results and return them to you collectively.

How this assignment will be evaluated

I will not write any letter grades for this assignment. If you provide your own notebook entries and you answer the review questions, you will earn a grade of *Satisfactory*. If you omit either of these elements you will earn a grade of *Unsatisfactory*.

Conversion to PDF

If you are keeping an electronic notebook, all word processors can create PDF. If you are using plain text, a file can be converted to PDF using the Linux command

```
enscript -p- entry1.txt | ps2pdf - entry1.pdf
```

Physical notebooks can be scanned on the office copier or photographed and then scanned. If you must use a cell-phone camera, please photograph your entry in a strong light. You can then convert to PDF using ImageMagick:

```
convert entry2.jpg entry2.pdf
```

Finally, you can group multiple PDFs into a single file by using pdftk:

```
pdftk statement.pdf entry1.pdf entry2.pdf cat output submission.pdf
```