

Department of Electrical, Electronic and Computer Engineering

REQUIREMENTS FOR LABORATORY NOTEBOOKS

from the Project EPR400 Study Guide as prepared by Prof JJ Hanekom

The format is based on the suggestions of McCormack et al. as refined by prof. Duncan Baker (a past member of personnel). Laboratory notes should be kept in terms of both certain legal requirements, as well as to serve for the preparation of reports. Furthermore, such notes also provide information which can be used for the later traceability of procedures in great detail.

The purpose of having you keep notes is to encourage you as a future engineer to establish a good habit which will benefit you for the rest of your life. The notes you make at meetings and in the laboratory can be of considerable value to a future employer and in your career. Indeed, the notes serve as a working record of what happened and can be used for the preparation of reports. There is no additional time or workload involved in this exercise. The set of notes for a specific experiment or task is complete at the end of the experiment or task, and do not have to be rewritten later on.

- It is required that each student keeps a laboratory notebook for the practical component of each module in the Department EECE. The notebook should be a hardcover A4 size book.
- All modules *may* share the same notebook, i.e. you may use one book, but clearly indicate the module for which the notes are at the top of each page.
- All notes are to be kept in ink, not in pencil.
- All pages are to be sequentially numbered from beginning to end, preferably at the top.
- Pages 1-4 must be left blank for a table of contents which must be kept up to date.
- Start each day's work on a new page.
- The name of the experiment or task must be provided at the top of the page, along with the date. The date must be unambiguous, for example, 3 Sep. '15 or 3 September 2015. Under no circumstances should you use 03/09/15, or 9/3/15, or anything similar.
- The name or names of persons who helped you with a particular experiment or task must be written immediately below the title. It must be clear who did the work.
- Descriptions must be complete so that somebody can repeat the work without discussion with the author.
- You must sign your name at the end of every set of notes for a specific task or experiment. It is also a good habit to write the date immediately below your name and you are urged to do so.
- Unused open space must be clearly 'cancelled' using a large Z or X. Nothing may be

- written in this area at a later stage.
- Make complete notes of everything you do. Write in the first person. Write down all thoughts, calculations, planning or designs. Write your own comments where necessary. Do not use loose pieces of paper. In other words, try to "think" in your notebook.
- When you make a measurement, write down the detail of the experimental setup (or draw a picture), and write down the detail of the equipment you used, including model number, serial number (and/or number of the workbench). It may happen that you measured something with an uncalibrated or faulty instrument.
- You will not be evaluated on handwriting or style of notes, but your handwriting should be easily legible; numbers and symbols should be clear and unambiguous.
- Results and code from computer programs should be pasted into the notebook. Do not keep these on separate pieces of paper.
- If you have made a mistake, draw a single line neatly through the mistake. What has been written must still be legible. You will be surprised how often such a small item can jog your memory and lead to more productive work. Write comments on mistakes (why is it wrong?).

¹ JB McCormack, RK Morrow, HF Bare, RJ Burns, and JL Rasmussen, "The complementary roles of laboratory notebooks and laboratory reports," IEEE Trans. Educ., Vol. 34, pp.133-137, 1991.