

**Lakehead University**  
**Department of Electrical Engineering**

## **POLICY AND RULES FOR LABORATORY EXERCISES**

- No Food, No Beverages allowed in the laboratory room!!
- Keep clothes, bags, etc. OFF the benches with equipment on them.
- Be On Time ! Being late is annoying to your lab partners and if the experiment has progressed too far you may not be credited with doing the experiment!
- Safety precautions must be observed at all times to prevent electric shock, damage to instruments, etc.

COME PREPARED! **BOTH** THE WRITTEN LAB REPORTS **AND** LAB PERFORMANCE (INCL. ATTITUDE, PUNCTUALITY, PREPAREDNESS) WILL BE CONSIDERED FOR THE FINAL LAB MARK!

### **Lab Exercises**

#### **General**

The maximum number of students in a lab work group is indicated on the sign-up sheet. Should students leave a work group for whatever reason such that only one student remains in a group, this student may join another team provided there is still room in that team without exceeding the above maximum number.

#### **Missed Lab Exercises**

It is mandatory to perform all lab exercises according to course requirements. Failure to perform one or more lab exercises results in a grade of "F" for the course.

When a student misses a lab exercise for whatever reason he/she must notify the instructor as soon as possible. If the reasons given for the absence are satisfactory to the instructor, a make-up opportunity may be arranged.

There may be a chance to let the student join another team to perform the missed lab provided this does not then exceed the max number of students in that group. If it is not possible to accommodate this then a final make-up date will be arranged approximately one week after the end of classes. Should the student fail to attend this appointment he/she will be required to provide sufficient proof of inability to attend (medical certificate, air ticket, etc.) to avoid the "F" grade. The onus of proof lies entirely with the student! If the provided proof is accepted by the lab instructor, the student then must immediately make another appointment with the lab instructor!

The lab report in such a case is due within one week after performance, else the "F" stands.

### **Lab Reports**

#### **General**

It is mandatory that all lab reports must be submitted on time as specified by the lab instructor!

#### **Plagiarism**

Plagiarism will not be tolerated and may result in a grade of "F" for the course. Any material taken from sources like books, manuals, web sites, magazines, etc. must be clearly referenced as a footnote or under a bibliography!

A re-write of a report will be granted only under exceptional circumstances!

#### **Missed Lab exercises**

In some courses group lab reports may be allowed by the lab instructor. The group's composition is also determined by the lab instructor.

If a student fails to perform a lab exercise with his group he/she will have to write his/her own individual lab report!

#### **Late Submission**

The submission schedule (due date) will be made known by the attending lab instructor.

Late submission results in a deduction of 0.5 marks per day out of 10 full marks.

#### **No or Partial Submission**

A final date for submission will be clearly indicated on the sign-up sheet and/or announced by the lab instructor. If after that date not all lab reports have been submitted, the student will receive a grade of "F" for the course!

The deductions of marks for late submission still applies.

## Format

- The report **must** be typed. Graphs may be produced by computer, provided the software is suited for that use, i.e. grid, proper scaling and correct labelling can be achieved and the plot is smooth. If a graph is used to extract data or to provide some precise information, show precisely how the information is obtained (here it may be better to draw it on graph paper by hand - usually is faster, too).
- **For your report use YOUR OWN words to present your report concise, clear and clean. As pointed out above, copying etc. will be considered as plagiarism and will be severely punished by reducing marks or, in severe cases, served with an "F" as mentioned above (the provider/lender of the original work included)!**
- The notes/sheets containing the raw data taken by each student during the experiment are to be initialized by the attending technologist before leaving the lab and attached to the written report. Reports with the raw data missing are subject to a deduction of one full mark (= 10%)!

The student is encouraged to develop and use his/her own personal style for writing and presenting his/her report. However, standard procedures in industry and research laboratories require certain information to be documented. Therefore, adhere fairly loosely to a general format like the following:

- Title page

(Please make an exception here: Pages **stapled - no folders, plastic covers**, etc): Course number, Experiment number, Experiment Title, **Name**, Lab partners, Date of performance

- Abstract

Statement of objective of the experiment (one or two sentences)

Concise and pertinent outline of the theory underlying the experiment (max one page)

- Experiment and Analysis

If the experiment consists of two or more parts, keep the experimental and analysis sections together – the reader of your report does not want to continuously flip pages back and forth to look for data etc.!

Brief outline of the method of investigation (whatever is applicable):

Procedure

Measurement techniques

Schematic diagrams

Equipment identification

Data (tables)

Observations relevant to the experiment and the results

Arrange experimental data, and do the necessary calculations (if applicable, at least a sample calculation), to prepare for analysis

Theoretical calculations (at least sample calculation)

Comparison of experimental results with theory (preferably in form of tables/graphs)

Probable causes and magnitude of errors

- Conclusion (Summary)

- Review questions

- Raw data notes, attached to report, and initialized by the attending lab technologist.

GOOD PRESENTATION IS OF THE UTMOST IMPORTANCE, AS IS CORRECT ENGLISH AND GRAMMAR. EXPECT 20% OF YOUR LAB MARK ASSIGNED TO THIS AREA!!

## GENERAL INFORMATION

### EQUIPMENT

If equipment needs to be signed out, contact one of the technologists. The person signing it out is responsible for it! Your marks will be held back until all equipment, books, data manuals, tools etc. are returned (i.e. your graduation might depend upon it!).

**Signed-out equipment has to be returned to the same technologist from whom you signed it out! Assure your name is then removed from his sign-out list!**

No equipment may be removed from any of the laboratories without explicit permission!

**As you see, this is very important! TAKE LABS VERY SERIOUSLY!**