CME 211 Laboratory Report Format

Students will be randomly divided into groups of five. **Each group will remain the same during the entire semester and will produce a single report for each laboratory. THE GROUP RECEIVES THE SAME GRADE.** Each student in the group will take the lead writing duties for **two (2) reports during the semester**: labs 1 & 6, 2 & 7, 3 & 8, 4 & 9 and 5 & 10. The non-lead members have the responsibility of proofing the report and making appropriate edits. Each group member must sign the report next to their name on the report cover certifying that they have read and agree to the contents of the report.

All laboratory reports must have the following five (5) sections.

1. ***Cover Page***: Should include course name, experiment title, **lead author's name**, laboratory section, non-lead group members **with a signature from each next to their name** and the date of the experiment. (**10 points**)

2. ***Introduction***: Should include the background and theoretical development of any equations used for calculations. Most importantly, it must contain a statement of the purpose and objectives of the experiment. This section should be less than one page. (**10 points**)

3. ***Data and Results***: Should contain the experimental data and all the parameters calculated from these measurements in tabulated form. If there are any figures or graphs, they should be included in this section. (**30 points**)

4. ***Discussion***: **All** specific questions noted in the laboratory handouts must be addressed here. Results should be discussed and interpreted within the context of relationships between theoretical and/or standard values and those measured in the lab. The trends of the graphical results (if any) must be discussed and comments should be made on the possible causes for either discrepancy or agreement between theory and experiment. (**30 points**)

5. ***Appendix***: Should consist of two parts:

(***App. A***) ***Calculations***: Sample calculations should go in this section. You must perform the necessary complete calculations for *one set of data only*. The symbols or variables used in the calculations must be defined here. The derivations of all analytical formulas (if any) should be included. (**20 points**)

(***App. B***) ***Raw data***: Raw data is tabulated here.

POINTS TO CONSIDER:

- You will be divided into groups of five (5) students in each of three laboratory sessions. If you cannot come to a particular lab session, arrange with the T.A. or myself for an alternate session. This should only be done as a last resort as it disrupts the overall organization of the labs. Attendance is taken and counts towards 5% of your grade.
- You must work together with your lab group members on measuring the parameters and working out the results. The report is prepared by a lead author, but it must be **reviewed and signed by all non-lead group members**. If you do not have everyone's signature, the entire group will get a zero for the report. Plagiarism is very easily spotted and

constitutes a violation of the UIC student conduct code. The first occurrence will result in a zero for the lab grade. Two occurrences will result in disciplinary action being taken.

- Reports should be clearly printed using a word processor. Handwritten reports will not be accepted. All graphs **must be computer-generated using EXCEL or other spreadsheet type program**. *Use of EXCEL for graphing and trend analysis is demonstrated in the online EXCEL tutorial on the course webpage*. It is assumed you know word processing.
- Reports are due in class on the **Wednesday lecture** after lab week (**i.e. in 8 days**). Late reports will not be accepted.
- Lab attendance, participation and report quality accounts for 25% of your lab grade.
- **Run spell-check!** You will find I grade heavily on grammar. You will be judged in your professional careers in part by how well you communicate.
- **The group receives the same grade. Therefore it is imperative that you all edit the report thoroughly.** This is intended to prepare you for working in a group setting, as you frequently will in the profession of engineering. I note when a particular lead author has two sub-standard or substantially better reports than the group as a whole. These will become very important for "borderline" cases during final grading.