How to write lab reports

1. Use MS Word for text. Start with Lab #, Lab title, your name, and Physics 327 Section #. Also write down the name of your lab partner.

2. You can add formulas or equations by hand.

3. In MS Word, you can insert Greek symbols. Use space properly; for example, “10 kΩ”, rather than “10k Ω” or “10kΩ”, is correct. However, 10ºF or 10ºC is correct.

4. Use Origin for plotting data and analysis. It is ok to use Excel for some tasks such as diagrams, etc.

5. In Origin, you can save plots as *.bmp or *.jpg files, so that they can be inserted to your *.doc report.

6. Label the axes and add units on your graphs where necessary.

7. Insert your graphs, tables or formulas on the page, where they are actually discussed, if possible. It is better not to stack all of the data and plots to the back of the report. Add figure #, table # and also captions.

Fig. 1. Show the entire rectangular frame. Use inward tick marks. Show actual data points and labels with the right units. Always add figure captions.

8. Each lab report should have a short Introduction (one paragraph) describing the purpose of the lab and basic ideas. Do not just copy the lab description or manual into your report. A good strategy is to (a) read the lab manual carefully, (b)
understand it, and (c) describe the essence in your own words in a single paragraph.

9. You can copy circuit diagrams into your report from the lab manual or draw them by hand. Cell phone photos of experimental setups, oscilloscope screen, etc. are O.K.

10. After the introduction, there must be an *Experimental* section, where you show the data you obtained and analyze them. All the tables, plots, calculations etc should be in this section.

11. Then, please include a brief *Conclusion*.

12. Each lab partner must hand in his or her own individual report. Only the raw data can be shared by the partners. Do not copy reports from your partners.

13. The report is due at the day we start working on the next lab.

14. Grading the labs.
   Max. grade is 15 pts. Things that could result in a lower grade:
   1. Missing parts of the lab or unanswered questions;
   2. Missing units;
   3. Missing axes labels on the plots;
   4. Not appropriately rounded numbers;
   5. Failure to submit the report on time;
   6. Missing raw data (actual measurements);
   7. Unclear or messy reports.

15. The attendance of the labs will be taken down. You have to actually attend the lab class to complete the lab. You are not allowed to write your report based on borrowed data. If you have to miss a lab, please arrange going to another section the same week to join someone and actually do the lab.