Physics 122-L

Summer 2014

Tuesday and Thursday: 1-3:30 pm

Lab Instructor: Jeff Lapierre
Office: Workman 342
Office Hours: Tuesday and Thursday: 10-11 am (or by appointment)
Email: jlapierr@nmt.edu

Materials: Lab manual, lab book (to record data), pen, and calculator.

Contact: The easiest way to contact me is through email. If I need to contact the class outside of lab time, I will use email. Therefore, make sure that I have the correct address and that you check it! I will not accept the excuse, "I did not get your email".

Attendance: Mandatory. Unless you have a valid reason (ex: a note from the doctor), NO make-up labs will be given. If you do not attend the lab you will receive a zero on that lab report. You will have one lab in which you do not have to do. If you do all the labs then I will remove the lowest grade.

Grading: Each lab report will be broken up into 20 points as follows:

- Data/Attendance - 5pts
- Prelab - 2pts
- Procedure - 2pts
- Analysis - 5pts
- Discussion/Questions - 5pts
- Neatness – 1pt (Cover page, correct labeling, correct order of sections and legible handwriting if written, grammar and spelling)

Lab reports may be hand written. If hand written, writing must be legible and graphs and tables must be drawn with a straight edge.

Due Dates: Lab reports will be due during the following lab. Late lab reports will **NOT** be accepted unless there is prior notice. Abusers of extensions may be denied.

Cheating: I refer you to the academic honesty section in the current NMT course catalogue. Working together is allowed and even encouraged, however cheating and plagiarism will not be taken lightly. I expect EVERY lab report to be your own work, even if you are in the same group. If there is any indication of

cheating in any way you will get zero on that lab and I will report it to the head of the department. If it happens again the student will fail the lab and again be reported and expulsion will be possible.

Etiquette: Cell phones should be turned off and no texts, unless an emergency arises. No food in the lab and be careful with water. Come prepared with your manual, materials needed (calculators, pencils, etc) that are not provided, questions and be ready to work. Being on time is important. If you are late, please try to keep the disruption to a minimum while you're joining your team. Abusers may be asked to leave the lab.

Lab Reports: I expect the lab reports to be stapled, neat and presentable (no coffee stains, etc.) The following is the expected format:

Prelab (due at the beginning of lab): A brief summary of what the lab is about and the purpose of it. Also include relevant equations.

Report (due the next week)

- **Cover page:** Lab Number and/or lab name, the date, your name, your lab partners name/s.
- **Procedure:** Briefly paraphrase the steps of the lab and include the type of data that was recorded (mass, temperature, etc) and any deviations from the manual. Include sketches of the apparatus and equipment if needed. Keep it concise but clear enough that I know you did the lab. Do not copy the manual! No bullets or numbered steps, type into a paragraph.
- **Analysis:** Any calculations performed should be done here. If the same calculation is repeated, a full example of each should be shown. Describe what you are doing and produce graphs and show trend lines or regression fits to your data. **Units, labels, axes!**
- **Discussion/Questions:** This section is where you will explain what your data means, whether your data corresponds to what was expected or not. If not, explain possible reasons why not and what could be done to improve upon this. Include an error analysis including error propagation when applicable. User error is not acceptable! Know the difference between % error and % difference. Any questions in the lab manual should be answered here.
- **Data:** Record data on paper, either in a lab notebook, graph paper, or loose leaf. Create tables to gather the data in the steps outlined in the manual. Include units, date, time, problems, notes, sources of error, anything else with the data during lab. I will initial data recorded at the end of the lab. Include the original in your lab report.