

GG450L: Geophysical Methods Lab

OVERVIEW. GG450L will provide you will experience in making geophysical observations and analyzing data so that you can learn, first-hand about the physical structure of the Earth. In addition, GG450L will provide practice in using the scientific method and support the course objectives in improving writing skills. Laboratory projects will include both geophysical field experiments and computer work.

ASSIGNMENTS. Most lab topics will consist of the following components:

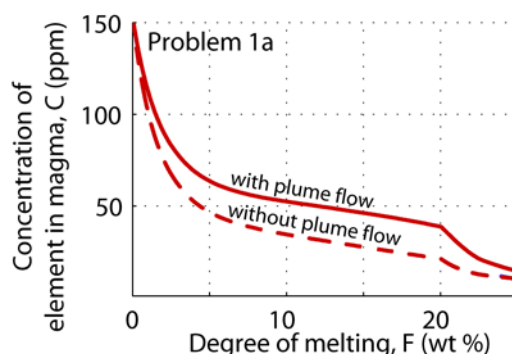
1. **FIELD OBSERVATIONS.** Depending on the topic, you will work with existing datasets or data that you obtain during lab sessions.
2. **DATA ANALYSIS.** You will be required to perform quantitative data analyses using MATLAB software. The G&G department has a site license for MATLAB, which you can access from department computers.
3. **REPORT:** (see below)

LAB REPORTS. You are asked to present your laboratory work as well written report containing the sections labeled and in the sequence as followed:

I. Introduction: State the objectives of the laboratory and/or any hypotheses being tested.

II. Data and Method: Outline the basic methods and theory that will be used.

III. Results: This is where you will place the work that is requested for each lab. Please be sure to **label all axes of plots** and label the plots according to the question being addressed. Make sure the meaning and units of all variables/quantities are defined. Below is an example of a well-labeled plot:



Plots need not be of perfect publication quality, just legible and clear; so feel free to write labels in by hand. Also, please hand in a paper copy of Matlab scripts used.

IV. Conclusions: Briefly state what you have learned and to what degree you have satisfied the purposes stated in the introduction.

The above sections need not be long (often a short paragraph will suffice) but should serve their purposes. Use correct grammar, complete sentences, correct spelling, and writing that is clear, accurate, and concise. You will be graded on these aspects and as well as the quality of work done. Again, you are encouraged to ask each other questions in completing the lab work, but all work turned in must be your own.