Earth, Moon, and Planets Lab
Fall 2006
Wednesday 6-9pm Section
Pupin 1402 (Astronomy Library)

TA: Roban Hultman Kramer (roban@astro.columbia.edu)
Office hours: Tuesday 11am-12 in Pupin 1420 or any time by appointment
Office: Pupin 1420 (last office on left as you walk away from the library)

Attendance Policy

You must attend lab to get credit and there are, in general, no make-up labs. Missing a lab means losing all credit for that week. Three missed labs results in a failing grade.

Being on time for labs is important because you will often be forming groups, getting instructions, and going outside as soon as lab starts. Missing the introduction to a lab may be counted as an absence.

That being said, an exception may be made for extraordinary circumstances or religious holidays. If you know you will need to miss a lab, please let me know as much in advance as possible. The earlier you let me know, the more flexible I can be about when and how you can make up the lab. If you miss a lab due to illness or emergency, please get in touch with me by email before the next lab session.

Materials and preparation for labs

Please bring a calculator, writing implements, and your lab notebook to every meeting.

Please obtain a lab notebook by our second meeting. It can be any type of notebook you would like to use, but keep in mind the following: You will need to keep all of your lab papers in your notebook, including work done during lab, and all of the handouts I give you. You are responsible for keeping everything handed out in lab and for keeping all of your work together. We will often refer back to previous exercises or do activities that span multiple weeks.

You should be prepared to go outside every week. You will soon want gloves, a hat, a warm coat, etc. Even if the day has been warm the temperature will drop quickly on a
clear night, and even if it has been cloudy, the night may clear up, or we may do something outside that does not require clear skies.

**Calculator**

Please bring a scientific calculator with you to lab every week. This should at least be capable of logs, roots, and trigonometric functions (sin, cos, tan).

**Lab notebooks**

With each lab assignment I will specify what kind of information I want you to record in your lab notebooks. I will periodically collect your notebooks and assign a grade for each lab based on what you’ve recorded in your lab notebooks. I’m looking for you to demonstrate that you’ve paid attention to the instructions and really tried to think about the subject matter of the activity.

You should label every page of your lab notebook with the date. Write down the name of the each lab exercise as your start it. When you do calculations I want to see your work, which should be written out clearly with units. All numbers, especially those given as final results, should be labeled (for instance, write “Distance from Low to Butler, $D = 200$ meters”, rather than just “$D = 200$”).

**Grading**

Most labs will be completed during our regular three-hour meetings, but occasionally we may have no meeting and I will instead ask you to do some work independently. This work will be graded just like in-class work.

Your class participation grade is based on my assessment of your contribution to discussions and group work and your willingness to think and ask questions.

Your final grade will be 70% lab notebooks and 30% class participation.