

## Bi 1X, Spring 2012

### Grading Rubric

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#### Overall Grade

1. Lab Performance – 15%
  - Attendance
  - Safe lab behavior and responsibility
2. Lab Notebook – 20%
  - Prelab
  - In lab notes
3. Assignment – 50%
4. Journal Club – 15%
  - Participation in class discussion

#### Attendance:

Bi 1X is focused on a large project that highly depends on protocols carried out during class time. Thus, attendance is **100% mandatory**. Tardiness is **unacceptable** and will affect your grade. Anyone that misses more than 2 lectures without a formal excuse from the Dean or Health Center will be dropped off the course automatically.

#### Lab Notebooks:

Keeping an up-to-date and accurate record of your work in lab will account for 20% of your overall grade. This grade will be divided into two sections: (1) pre-lab on experimental information including the purpose, materials and methods (10% of overall grade); (2) in-lab notes including comments on procedure, observation, data and results (10% of overall grade). **Please save the first two pages of your lab notebook for a table of contents page and list all of your experiments and their page number here after every class.**

Your notebooks will be checked in class for completeness and turned in later to be graded for accuracy.

#### Example Notebook Setup:

*Already in notebook when you ARRIVE in lab:*

- Date
- Title of Experiment
- Purpose of experiment in one or two sentences. (What you are trying to find out and how you plan to do that. Note that in some cases, the experiment is not so much to find something out, but rather just to do a procedure that is part of some larger overall objective.)
- Materials: List of materials you will use in the experiment

- Methods: Bullet-point outline of what you will do in lab. Note that copy & paste of the handouts into the lab notebook is NOT acceptable.

*To be filled in during lab:*

- Comments on methods: Mark out any deviations from the protocols that you used in the lab.
- Observation/Data: Write down any observation as well as any associated data. Clearly write out your calculations and a table that lists the amounts of solutions you used for each reaction. This is separate from data analysis activities, which are turned in for a separate grade (see the **Assignment** section).
- Any notes you think might be important for future reference.

### **Assignment:**

Most of the assignments in Bi 1X are data analysis of the weekly experiments unless to be notified otherwise. They are due at the **beginning** of the class on the due day. Late assignments without a formal excuse from the Dean or Health Center will have 10% credit deducted for each day that it is late (in other words, up to 90% credit if one day late, up to 50% if five days late, and so on).

### Example Assignment Setup:

*Please print out and turn in paper format.*

- Title of Experiment
- Introduction: a paragraph that briefly explains the background of the experiment, the objectives, and a summary of how the experiment was carried out.
- Data: Numerical data with sample calculations and formulas in table format.
- Figures/Graphs: Must include captions, title, labels on both axes with units of measurements, error bars, and a legend if applicable.
- Results/Discussion: Describe what the data means in words. Discuss possible sources of errors. Answer questions in handouts if applicable.
- References
- Matlab codes with comments if applicable

### **Collaboration Policy:**

You are allowed to collaborate on ideas of analyzing data. But each person must turn in your own data and write-up including Matlab codes. For experiments in groups, you are only allowed to share the data but you must write your own analysis.