Lab Reports: You will be required to hand in journal-article-style lab reports for four of the labs. The reports should be well written; you will be graded on the clarity of your writing as well as your analysis of the experimental results. See the Integrated Writing Guide for details. You will hand in an individual lab report for the equilibrium lab, and for all short-form lab reports. Note that although you will be collecting data in groups in the lab, everything in the individual lab reports (analysis, writing, graphs, and tables) must be your work only. You are, however, encouraged to help one another in understanding how to interpret your results. You will hand in group lab reports for the calorimetry, kinetics, and phospholipids labs.

Group Report Job Descriptions: You will be assigned lead author, reviewer, or editor on a group lab report. The lead author will have the principal responsibility for writing up the lab report. The reviewer will score the lab report using the rubric provided and turn in this review to each of the group members on the following class meeting. The editor will make the corrections suggested by the reviewer, and turn in the final copy of the report. The title page of each report should list the names of the lead author, reviewer, and editor. Punctuality is important here, so late work will be docked 20% per day.

Calibrated Peer Review (CPR): You will do two CPR assignments. First, you will submit some text on-line. (For the first assignment, it will be the Methods and Materials section of the Equilibrium lab.) In the second step you will review and grade three M&M sections that I have written. Finally, you will review and grade three of your peers.

Lab Notebooks: You do not need to copy the procedure handout into your lab notebook, but you do need to write down everything else, such as the vendor and grade of chemicals, make and model of major instruments, settings on instruments, any deviations from the procedure handout, and observations. You will need these things when writing your lab reports. Follow proper notebook protocol when writing in your notebook.

Lab Report Requirements: Each lab report will include...

- all equations typeset with Equation Editor, LaTeX, or a similar program
- original figures of the structures of the relevant chemicals, drawn with a chemical drawing program such as ChemDraw.
- at least one graph and one table
- at least 3 references to relevant articles from peer-reviewed journals
- Please use 14 pt. font

Short-Form Report Requirements: You will write up the photochromism, surface tension, melting point, DNA, DSC, and myoglobin labs as short-form reports. These consist of a single page containing the relevant graphs and calculation tables. These are individual reports.

Safety, Clean-up, and Participation: Every chemist is responsible for his or her own safety, as well as the safety of everyone else in the lab. You must wear your goggles at all times in the lab. In addition, a messy lab is an unsafe lab. Everyone must:

1. Clean balance and balance area, immediately after use
2. Clean pellet press and press area, immediately after use
3. Pour all waste into the proper waste container, and recap waster container
4. Glassware: remove labels, wash, rinse with DI, and put in rack
5. Turn off all equipment and wash hands before leaving lab
Every student should share equally in the clean-up work—there should not be a designated dishwasher! This applies to data collection, too; make sure that you take turns doing the various experimental tasks.

**Ethics:** It is Cal Poly policy that students who cheat must, at a minimum, be reported to the Office of Student Rights and Responsibilities and receive an F on the assignment. Cheating may also result in an *F in the course.* Cheating of any form, including plagiarism, will not be tolerated. You must turn in a signed *Ethics in Writing Statement* before any other assignments.

**Email:** I will email the course distribution list, so it is a requirement of this course that you check your Cal Poly email.

**PolyLearn:** Grades for all assignments will be posted on PolyLearn. If you believe there is an error in a posted grade, you should report it to me immediately.

**Calculation of grade:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calibrated Peer Review</td>
<td>6%</td>
</tr>
<tr>
<td>Ionic strength individual lab report</td>
<td>10%</td>
</tr>
<tr>
<td>Three group reports (each 10%)</td>
<td>30%</td>
</tr>
<tr>
<td>Six short-form reports (each 3.5 %)</td>
<td>21%</td>
</tr>
<tr>
<td>Lab report exam</td>
<td>13%</td>
</tr>
<tr>
<td>Exam</td>
<td>20%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

**Cut offs:** (You are guaranteed at least the grade shown below.)

- 93 A
- 90 A-
- 87 B+
- 83 B
- 80 B-
- 77 C+
- 73 C
- 70 C-
- 67 D+
- 63 D
- 60 D-