Experiments performed in this laboratory course are intended to complement the material presented in Biophysical Chemistry I, emphasizing equilibrium thermodynamics and kinetics.

The course grade will be a composite of report grades (80%) and laboratory technique. Attendance at all sessions is required. Laboratory reports for each experiment will be turned in the week after the experiment is completed. A penalty of one letter grade per week (or part thereof) will be assessed on late reports. No lab reports will be accepted after December 7th.

The report must include an Introduction (a brief statement of experimental goals, in your own words), Experimental section (describing the methods used), Results section (data and calculations), and Discussion section (conclusions based on the results obtained).

One of the goals of this course is to introduce the student to the laboratory use of spreadsheet software. The departmental computers have a number of these (Excel is an example), as do many of the university PC’s. If you are unfamiliar with these, seek help from the lab instructor or the course supervisor (Dr. Baumann). This syllabus and all lab handouts may be found on Dr. Baumann's home page (http://www.scranton.edu/faculty/baumann/).

Students with Disabilities

Request for Accommodations: Reasonable academic accommodations may be provided to students who submit appropriate and current documentation of their disability. Students are encouraged to contact the Office of Student Support and Success (OSSS) at disabilityservices@scranton.edu or (570) 941-4038 if they have, or think they may have, a disability and wish to determine eligibility for any accommodations. For more information, please visit www.scranton.edu/disabilities.

Writing Center Services

A valuable resource, the Writing Center welcomes student writers engaged in the writing process. Trained writing consultants from various academic disciplines work one-on-one with student writers on all aspects of writing.

Students can make an appointment through the My.Scranton portal: my.scranton.edu -> Self Service -> Student & Financial Aid -> CTLE Menu.

For more information, please visit the Writing Center webpage

Academic honesty:

The first time that a student is caught plagiarizing or using fabricated data in a report, he or she will receive a grade of zero points for that assignment. For further consequences of violating academic ethics please refer to the University of Scranton Student Handbook.


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Format for Laboratory Reports

The laboratory report for an experiment in this course must minimally contain the following:

1. Introduction:

A brief statement of the purpose of the experiment and the theory behind the experimental procedure.

2. Experimental:

A description of the experimental procedure, referenced whenever possible to the textbook or accompanying materials. Deviations from the reference procedures should be noted in this section.

3. Results:

Data should be presented in tabular and/or graphical form in this section. The use of spreadsheet software (such as Excel) will make this section much easier to complete. Explanations of calculations, including sample calculations, should be included, as should statistical computations and sample spectra.

4. Discussion:

A brief analysis of the results of the experiment, sources of error, and suggestions for improvement of the procedure. Comparison of experimentally obtained quantities with literature values should be made whenever possible.

5. References:

A list of all sources used in the laboratory report.

6. Appendix:

Computer output and spectra should be included in this section.
The SLO Track

In completing this course students should be able to:

1. manipulate a simple vacuum system safely
2. prepare aqueous solutions safely and accurately with a minimum of waste
3. use specialized laboratory glassware appropriately and safely
4. use laboratory instrumentation appropriately, accurately and safely
5. use software to graph laboratory data appropriately
6. write concise laboratory reports that accurately explain the results of the experiments performed
7. work safely and efficiently in a chemical laboratory