CHM 3411L, Section U03
Physical Chemistry II Laboratory
Spring Semester 2020

Time and location: MW 2-4^{50} pm, CP 375

Text: Laboratory Manual will be provided by the Instructor. A $5 fee will be charged to recover copying costs. Further reading (not required): *Experiments in Physical Chemistry, 7th or 8th Ed*., D.P. Shoemaker, C.W. Garland, and J.W. Nibler (New York: McGraw Hill, 2009 - ISBN 978-0-07-282842-9).

Instructor: Dr. Mebel, CP 332, 305-348-1945, mebela@fiu.edu
Office hours: MW 10 am -12 noon or by appointment.
Website: faculty.fiu.edu/~mebela

Corequisites: Physical Chemistry (CHM 3411) and Quantitative Analysis (CHM 3120 and 3120L).

Grading and Lab Reports: There will be eight experiments performed this semester. For each experiment you will turn in a lab report. Your grade in the class will be the average grade earned on the lab reports. Three factors are important in the lab reports: completeness of the error analysis, quality of the discussion, and quality of the data. A sample lab report can be found in the text. A lab report should include all of the following sections: Abstract, Introduction, Methods, and Discussion. In the Methods section, there is no need to repeat a description in the text; it is sufficient to cite the text in a footnote. Each experiment in the text has sections entitled Calculations and Discussion. You should perform all calculations described in the Calculations section unless otherwise instructed. Your Discussion section should address (but not be limited to) all questions suggested in the text's Discussion section unless otherwise instructed. If you have questions regarding matters for calculation or discussion, see the instructor. You are encouraged to discuss the lab and perform calculations with your partners, but *all reports must be written independently*.

The grading criteria for lab reports are:
A Clear, complete, and correct results, error analysis, and answers to all Discussion questions; clarity in writing.
B Minor errors in calculations and error analysis, confusion with some Discussion questions.
C Major errors in calculations, incomplete error analysis, incomplete Discussion.
D Confused approach, missing error analysis, missing or trivial Discussion.
F Completely inadequate.

Notes:
1) You are expected to purchase a bound notebook for recording experimental data, and to record all such data directly into your notebook. Notebooks will be reviewed periodically. This will make up a portion of your grade on the laboratory experiments.

2) Late assignments will be penalized up to one letter grade per week or fraction of a week late. It is therefore important to turn in your work in a timely manner. You must turn in all of the lab reports to pass the class.

3) Excused absences from the laboratory experiments will be by permission of the instructor only. If you are forced to miss a laboratory experiment, you are expected to notify me in a timely manner.

4) While you will work on the most of the experiments with one or more partners, all lab reports must be written independently. You are encouraged to discuss the experiment and calculations with your lab partner(s) and with the lab instructor.

5) Cheating or assisting other students in cheating is a violation of University policy and will be punished. For further information please refer to the University Code of Academic Conduct.

6) You are expected to retain all graded assignments for your records until after final course grades have been given.

7) As per University policy, a grade of incomplete will only be given "…for work not completed because of serious interruption not caused by the student's own negligence." An incomplete will only be given after consultation with me and a written agreement outlining the reason for the incomplete and a timetable for making up the missing work.

Course Outline (tentative)

January 8th – Introductory Meeting (Syllabus)

January 13th – Discussion of the first set of experiments

January 15th to February 19th – First set of experiments on thermodynamics and kinetics

March 2nd to March 11th - Second set of experiments (computations)

March 16th – Discussion of the third set of experiments (spectroscopy)

March 18th to April 1st – Spectroscopy experiments

A schedule of experiments, lab partners and due dates for lab reports will be posted for the first set of experiments by Monday, January 13th.

Important dates: 01/13 - last day of early drop, 03/16 - last day of late drop.