CHM4413L: Biophysical Laboratory

for UF Chemistry Majors

Sections 12D5, 3784 (W); 12ED, 4733 (R); 21D5, 6105 (F)

Spring 2017 (January 04 – April 19)

(2 Credit Hours)

Course Website: https://ufl.instructure.com/courses/336792

Course Materials and "Manual": All course materials will be available through our secure course website, listed above, which is a Canvas LMS site hosted by Instructure. There is no printed textbook or lab manual, but feel free to print whatever you want from our website if that is your method.

Instructors: Gail Fanucci, P Brucat, and Matt Burg

Contact info: Your instructors are to be contacted through the Canvas Messaging tool.

Office Hours:	Fanucci	TBA
	Burg	TBA
	Brucat	posted or by appointment (see below for details)

Teaching Assistants (Contact through Canvas Messaging)

Maria (Pilar) Buteler (3784) Diana Choi (12ED)
Christian Devereux (21D5) Jaiwei Huang (12D5)
Victoria Perrone (6105) Qiong (Bruce) Wu
Yunlu Zhang (4733)

Weekly "Lectures"

We all meet together Tuesdays period 4 in TUR L011 for background information, discussion of the lab activities, expectations for assignments, and an occasional unannounced quiz. Attendance is mandatory.

SPRING SEMESTER 2017

	S	M	T	W	T	F	S
Jan.	1	2 Holiday	3 Registration	4 Drop/Add	5	6	7
	8	9 Drop/Add	10	11	12	13	14
	15	16 Holiday	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31				
Feb.				1	2	3	4
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28				
Mar.				1	2	3	4 Spring Brea
	5	6 Spring Break	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30	31	
Apr.							1
	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20 Reading Days	21	22
	23 Comm.	24	25	26	27	28 Commencement	29
	30						

Lab Sessions

Each section is assigned a specific afternoon meeting time, usually occurring in LEI248. Some data analysis and database activities will be held in a more traditional classroom, and some will occur in the Science Library. Locations will be posted in course announcements. Be prepared for all lab sessions. Contact your instructors at least one week in advance if any potential absences are anticipated.

Lab Safety

You are expected to have and use all proper safety equipment and procedures when in the laboratory. This includes, but is not limited to, eye protection and appropriate clothing/skin covering. We will also be using optical and IR lasers which require specific radiation safety procedures. For more information about lab safety see the course website and consult your lab instructor.

Ethics

We expect deportment and conduct appropriate of research professionals of students in this course. This includes the

complete understanding of academic integrity, plagiarism, and data fabrication.

Course Communications

All course communications are to occur within the Canvas environment using Announcement, Discussion, or Messaging tools. Configure your Canvas account for immediate automatic forwarding of announcements and course communications to your preferred communication/email method. Do this now.

Groups

Each lab section will be divided into four groups of (nominally) three people. You will work together as a team in lab, but pre-lab quizzes and some assignments will be submitted individually. Midway through the semester you will have the opportunity to request replacement into a different group. Your first team membership will be assigned by the faculty. If there are troubles within your group dynamic, these can be reported and teams can be regrouped for the second half of the semester. Please pay attention to all assignment designations and Groupings on the Canvas LMS site hosted by Instructure

Lab Notebook and Data Plotting

Every good Chemist has a lab notebook by their side. It is a journal, evidence of discovery, a historical record, and a valuable tool. You will keep a proper lab notebook in this course. Your notebook will be graded and checked upon leaving each lab period. You should come to lab prepared with all tables and notes within the lab notebook. TAs will check your notebook at the beginning of the laboratory period to ensure you have come prepared. Even when working in a group each student should have complete data notes within their own lab notebook. You also should have at least one person in your group come with a laptop that has sufficient software to plot data before you leave the laboratory session. It is your responsibility to repeat data measurements in cases where things have gone awry. Many assignments are to show your pre-processed data or preliminary graphs BEFORE leaving the laboratory period. This will be assessed in you **Data Processing** grade (see below). Your notebook itself (organization, completeness, etc.) will be assessed every lab session as "acceptable" (100%), "unacceptable" (50%), or "missing" grade (0%). This assessment will be averaged for the term to yield your **Notebook** grade (see below). One unacceptable (but not "missing") grade will be dropped from the term's Notebook grade calculation (if it exists).

Course Grade Computation

Your course letter grade will be derived from a simple calculation: the weighted average of your performance in:

Prelab Quizzes	10%
In-Class Quizzes	10%
Post Lab Questions	5%
Post Lab Feedback	5%
Titles & Abstract Assignments	10%
Data Processing Assignments	20%
Notebook	10%
Experimental Design	20%
Full Report	10%
Total	100%

Your course grade will be determined from your total course performance percentage as follows:

85%	A
80%	A-
75%	B+
70%	B
65%	B-
60%	C+
55%	C
50%	D
< 50%	E

All grades will be posted in the Canvas GradeBook, as available.
UF's Grading Policy: https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Laboratory Activities (To be performed in rotations; See Canvas for scheduling details)

Measurement: Accuracy, Precision, Error, and the Micropipette
Graphing Data: Professional Style and Format
Library Databases: This isn't your Daddy's Google Search
Electronic Structure of Molecules: Quantum Mechanics and Spectroscopy
Transport Phenomena: The Permeability of a Membrane
Phase Equilibria: The Eutectic Behavior of Drug Mixtures
Enzyme Kinetics: Binding, turnover and Inhibition in the Metabolism of Lactose.
Fluorescence versus Absorption: Sensitivity vs Ubiquity
Non-Radiative Energy Transfer: When is Quenching not Dissipative?
NMR and Protein Folding: A Model System

Absences

Excused absences are allowed in accordance with UF policy. Consult with your instructor at least one week in advance of their occurrence or risk losing activity credit.

Meeting and Communicating with Brucat

Use only the Canvas messaging tool ("Conversations") for communicating about our course with Brucat, as well as all other instructors. Brucat will occasionally post times and places for student conferences on the Canvas calendar when the need for such meetings are anticipated. However, Brucat is always available for "office hours" with students, by request. A request consists of a message through the Canvas messaging tools with three distinct times you find convenient for your schedule to have a meeting. The response will choose one of the options and supply a meeting place. This is a painless procedure for optimizing your access to this instructor. Use it liberally.

Late submission policy

Life happens. Sometimes one cannot meet the challenges of meeting deadlines. If you anticipate that you (as an individual or as a group) cannot meet an assignment deadline, communicate that to your Instructors (message all Instructors) prior to the scheduled assignment deadline with a projected late completion date. A late penalty of 10% per day past the scheduled assignment due date (whole or partial) will be assessed. Without prior notification, late submissions will be scored as missing (i.e. zero, zip, null, nada, bupkis). If the proposed late submission (revised) deadline is missed, the assignment will also be scored as missing. Group assignments must have the unanimous consent of all members to request late submission. Use late submission requests sparingly.

Regrade Requests / Grade Challenge

Everyone makes mistakes. No one, however, should suffer from a mistake that can be corrected. Therefore, if you feel that a particular assignment has been misgraded by your instructors, you have the right to challenge that grade. One challenge per person. One challenge per group. If the result of the grade challenge results in a grade less than or equal to that originally scored, the challenge is lost, and no more remain. If the challenge was valid, however, the request is granted without penalty of challenge count. One challenge per individual and one per unique group is granted per term.

Resubmission Requests / The "Do Over"

When in life to you get a "do over" (handball, tennis, etc., but not Science, right)? Well, in CHM4413L one does, after a fashion. Every individual and group has the option of resubmitting an assignment that just wasn't up to their standards, but under certain conditions:

- The resubmission request must come to all instructors by Canvas messaging within 24 hours of the grade post.
- The resubmission request will contain a deadline for resubmission, not to exceed 1 week from the grade posting
- The resubmission will be graded as an original submission. However, if all the issues commented on in the original grading are not addressed the assignment will be graded as missing.
- If the resubmission is not received by the proposed deadline the assignment will be graded as missing
- If the resubmission is acceptable, the score for the assignment will be the arithmetic mean of the original score and the resubmitted score
- A resubmission may not be combined with a late submission or a regrade request.

Login Issues

For Username/Password issues, such as difficulties logging into any Gatorlink-authenticated site at UF, (including our Canvas), please contact the UF Help Desk at: helpdesk@ufl.edu (352) 392-HELP - select option

University Policy on Accommodating Students with Disabilities

Students requesting accommodation for disabilities must first register with the Dean of Students Office (https://www.dso.ufl.edu/drc). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive, therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

University Policy on Academic Misconduct

Academic honesty and integrity are fundamental values of the University community. Students should be sure that they understand the UF Student Honor Code at:

https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code

We, the members of the University of Florida Community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity

Disclaimer

Note: All aspects of course operations, including grading, course policy and policy execution, are subject to change at any time at the sole discretion of the course instructor.

Fanucci/Brucat 2017