CHM2047L: One Semester Chemistry Laboratory

Fall 2019 (August 20 – December 13)

[Course Website]

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.

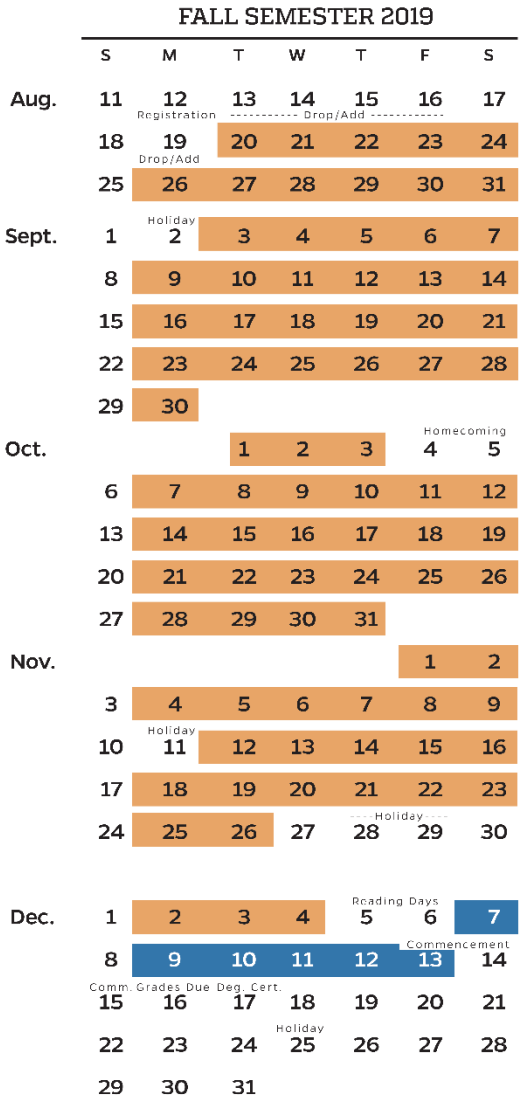
Office Hours: Room - LEI 232

Day	*Hours*
Monday	12:00 pm – 1:00 pm
Tuesday	11:00 am – 12:00 pm
Wednesday	11:00 am – 12:00 pm

Office hours can also be held by appointment if you have a conflict with the ones listed.

Contact:

Email should be sent through the Canvas messaging tool, and should include your section number and group designation. Occasionally, we will use the announcement tool on Canvas to disseminate information to the entire class. Please ensure that your Canvas account is configured to send notifications to your preferred communication/ email method.



Lab Sessions: Room Leigh 108

Class #	Section	Day	Period (Time)
11273	1944	Friday	8-10 (3:00 pm – 6:00 pm)
11274	3821	Friday	2-4 (8:30 am – 11:30 am)
11275	4303	Monday	8-10 (3:00 pm – 6:00 pm)
11276	9473	Monday	2-4 (8:30 am – 11:30 am)

- It is your responsibility to come prepared each week. The specific requirements will be unique for each experiment, which means you will need to read the material provided online in order to know what is expected of you.
- There will be pre-lab quizzes for some of the experiments throughout the semester.
- Your TAs will check your material and knowledge of the experiment at the beginning of each lab session to ensure you are adequately prepared (including proper clothing). If they are not satisfied, they may turn you away.
- Contact your instructors and group members well in advance of any anticipated absence so alternative scheduling can be made. For some weeks your lab group may be assigned a specific time of arrival.

Course Objectives

- Learn the basics of laboratory operations including:
  - Laboratory Safety
  - Experimental Techniques
  - Keeping a professional scientific notebook
- Perform data analysis
- Report findings professionally
- Use scientific literature databases

Lab Safety

All safety procedures must be strictly obeyed. Safety glasses must be worn at all times in the laboratory. Wear long-sleeved and -legged clothes to protect your skin against spills, or bring a lab "kittel." Closed-toed shoes are mandatory. Remove all pendant jewelry when working in the lab. If you have long hair, you may not let it hang loose but should tuck it away safely so that it doesn't present a potential hazard for you. Refer to the ACS safety manual which regulates all safety procedures in the lab.

Ethics

Students are expected to conduct themselves professionally in this course. This includes following the UF Honor Code (see below) and a complete understanding of academic integrity. Plagiarism and data fabrication will not be tolerated.

Groups

Each lab section will be divided into groups of 2 or 3 students. You will work together as a team in the lab. For some labs several groups will work together. Lab reports will be submitted individually.

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 checked and graded at the beginning and end of each lab period.

- Prior to the experiment:
  - Every ***individual's*** notebook needs to be prepared with all tables and notes necessary for the specific experiment prior to coming to lab. This will be uploaded to Canvas prior to the lab session and will determine your Notebook Grade (see grade computation below).
  - Every ***group*** should come with a laptop that has sufficient software to plot data as you collect it. The specific software should be prepared before coming to lab.
- During the lab session:
  - Your group should assess your data as it is collected, either visually with a plot, or by forming a table, or both.
  - It is your responsibility to repeat data measurements in cases where things have gone awry.

Course Grade Computation

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

	Percentage Points
Quizzes	20%
Notebook	40%
Written Reports	40%
Total	100%

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

A	100%	94.0%
A-	93.9%	90.0%
B+	89.9%	87.0%
B	86.9%	84.0%
B-	83.9%	80.0%
C+	79.9%	77.0%
C	76.9%	74.0%
C-	73.9%	70.0%
D+	69.9%	67.0%
D	66.9%	64.0%
D-	63.9%	60.0%
E	59.9%	0.0%

All grades will be posted in the Canvas GradeBook, as available.
UF's Grading Policy: http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html

List of Experiments:

Lab 1. Basics of lab Techniques and Measurements
Lab 2. Conductometric Determiniation of Potassium
Lab 3. Titration 1. Standardization: NaOH with KHP
Lab 4. Literature Exercise: Marston Science Library
Lab 5. Titration 2. Strong Acid - Strong Base: HCl and NaOH
Lab 6. Introduction to Absorption Spectroscopy: Beer's Law
Lab 7. Titration 3. Weak Acid - Strong Base: CH_3OOH and NaOH
Lab 8. Titration 4. Buffers: determining pK_a
Lab 9. pK_a analysis
Lab 10. Fluorescence of Quinine

Experiment Schedule

Week	Date	Monday Sections	Friday Sections
1	Aug 18-24	No Lab	No Lab
2	Aug 25-31	Lab 1	Lab 1
3	Sep 1-7	Holiday	Lab 2
4	Sep 8-14	Lab 2	Lab 3
5	Sep 15-21	Lab 3	Lab 4
6	Sep 22-28	Lab 4	Lab 5
7	Sep 29 - Oct 5	Lab 5	Holiday
8	Oct 6-12	Lab 6	Lab 6
9	Oct 13-19	Lab 7	Lab 7
10	Oct 20-26	Lab 8	Lab 8
11	Oct 27–Nov 2	Lab 9	Holiday
12	Nov 3-9	Lab 10	Lab 9
13	Nov 10-16	Holiday	Lab 10
14	Nov 17-23	No Lab	No Lab
15	Nov 24-30	Thanksgiving	Thanksgiving
16	Dec 1-7	Reading Days	Reading days
17	Dec 8-14	Finals	Finals

Absences and Tardiness

Excused absences are allowed in accordance with UF policy. Consult with your instructor and group members in advance. Do not arrive late to your lab. Tardiness will lead to loss of points on the 'subjective grade.' Unexcused arrival more than 30 minutes late for a lab may result in the student not being admitted to the lab. This leads to an automatic loss of all notebook points and the student may not use this lab for an oral lab report.

Late Submission Policy

Late assignments will receive a late penalty of 10% per day past the scheduled due date. If something arises that prevents you from completing the assignment on time, contact the instructor as soon as possible to request an extension.

Resubmission Policy

If you are unhappy with the grade of a written report, you may resubmit it with corrections. Each assignment can be resubmitted once. The resubmission must be turned in no more than one week after the original grade is posted to Canvas. The maximum score you will be able to receive is 80% (B-). Resubmissions are only an option if there is sufficient time left in the semester.

Getting Help

For quickest response, you might find posting questions to the Canvas Discussion Board might be a good choice. Messaging the Instructor, TA, or even a classmate also works.
For Username/Password issues, such as difficulties logging into any Gatorlink-authenticated site at UF, (including our course website), please contact the UF Help Desk at: helpdesk@ufl.edu, (352) 392-HELP - select option 2.

University Policy on Accommodating Students with Disabilities

Students requesting accommodation for disabilities must first register with the Dean of Students Office (http://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

This class will operate under the policies of the student honor code which can be found at: https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/. The students, instructor, and TAs are honor-bound to comply with the Honors Pledge: **We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.** You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: "*On my honor, I have neither given nor received unauthorized aid in doing this assignment*." It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks. Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/.

Disclaimer for this document

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

If you have further questions, please contact me. Have a great semester!

Sincerely,

Adam Mansell