

# CHM2046L GEN CHEM II LAB, Fall 2020

## INSTRUCTOR INFORMATION

### COURSE COORDINATOR

The course coordinator for Fall 2020 is Dr. Simon E. Lopez. You can contact the course coordinator via Canvas email. Virtual office hours are available by appointment (Canvas email).

### LAB MANAGERS

The lab managers are Candace Biggerstaff and Jessica Webb. They can be contacted via Canvas email.

### TEACHING ASSISTANTS

Your teaching assistant will be assigned during the first week of the semester. You will meet your TA during the first lab meeting. Their contact information and office hours will be posted on Canvas when available.

## GENERAL INFORMATION

### COREQUISITES

CHM2046L is to be taken with CHM2046. Detailed prerequisite information and credit suitability can be found in the Undergraduate Catalog.

### MEETING TIMES

CHM2046L meets once per week in JHH 110. The meeting time can be found on your schedule in ONE.UF.

### DESCRIPTION/GOALS

As both a general education requirement and major's course, CHM2046L is designed to introduce you to common laboratory techniques and equipment used in the general chemistry laboratory, to help you gain understanding and proficiency in their use, and help you explore the process of doing experimental chemistry, and to illustrate representative examples of the useful and important concepts you are learning in the CHM2046 lecture. The course serves to teach the scientific method, skills for problem solving, general chemistry knowledge, and a connection to the principles that govern the natural world.

### FIRST DAY OF LAB

Lab will start meeting live the week of September 14<sup>th</sup>, but you have assignments due before this date. The first deadline for online assignments for all students is Friday, September 11<sup>th</sup> at 11:59pm - check Canvas for details. On the first day of lab, you will meet your TA + fellow classmates and be assigned to the laboratory workstations. You will undergo safety training/orientation during the first lab period and complete a short lab activity. **You will not be allowed to enter lab unless you are dressed in proper lab attire (including approved eye protection), face-mask and have completed the online safety contract.** Prior to attending each lab period, you must familiarize yourself with the lab background and procedure and complete the Pre-Lab quiz. You should also summarize the procedure and make relevant data tables in

your lab notebook - part of your notebook grade will be based on this. Each workstation in the lab is equipped with a monitor that allows access to eLearning to view the lab documentation, and to UF Apps. During your first lab meeting, you will complete the first lab activity. Prior to attending each lab period, you must familiarize yourself with the lab background and procedure, and complete the pre-Lab quiz and turn in your pre-lab notebook online. These will be due at 8:00am on your scheduled lab day. During the lab meeting, you will be assigned to work in a workstation, answer questions and perform the calculations to finish the lab. You will be graded on attendance and participation during each lab period. After the lab period, you will submit your post-lab assignments online to be graded. These will be due at 11:59pm on the day of your scheduled lab.

## COREQUISITES

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## COURSE MATERIALS AND SAFETY

### REQUIRED MATERIALS

- Approved safety glasses/goggles, proper attire and a face mask. You will be asked to leave the lab if not properly attired and wearing a face mask. There are no make ups for attire or face mask issues.
- You will require a suitable laboratory notebook. Our recommendation is a standard composition notebook.

### SAFETY

You are responsible for reviewing the safety information provided in Canvas. All of the activities worth credit for the course will be locked in Canvas until you satisfactorily complete the Safety Contract.

## LAB SCHEDULE (SUBJECT TO CHANGE)

DATES	MONDAY	TUESDAY	WEDNESDAY	THURSDAY
Sept 8 - 11	First Assignments Due: September 11 <sup>th</sup>			
Sept 14 - 17	Beer's Law Lab			
Sept 21 - 24	Kinetics Lab			
Sept 28 - Oct 1	Equilibrium Constant Lab			
Oct 6 - 8	Le Chatelier Lab			
Oct 12 - 15	Acids & Bases Lab			
Oct 19 - 22	Titrations Lab			
Oct 26 - 29	Thermodynamics Lab			
Nov 2 - 5	Galvanic Cells Lab			
Nov 9 - 12	Transition Metals Lab			Transition Metals Lab
Nov 16 - 19	Electrolytic Cells Lab			
Nov 3- Dec 3			Wednesday students complete Transition Metals Lab virtually (online)	
Dec 7-10	Lab Practical (online, proctored by Honor-lock): Wednesday December 16 <sup>th</sup> (10 - 11 am)			

## COVID-19: UF Plan

You are responsible for review and follow the information and guidelines provided in about the UF Plan for re-opening during the Fall 2020 semester. Updated information must be checked at <https://coronavirus.ufl.edu/>.

We will have face-to-face instructional sessions to accomplish the student learning objectives of this course. In response to COVID-19, the following policies and requirements are in place to maintain your learning environment and to enhance the safety of our in-classroom interactions.

- You are required to wear approved face coverings at all times during class and within buildings. Following and enforcing these policies and requirements are all of our responsibility. Failure to do so will lead to a report to the Office of Student Conduct and Conflict Resolution.
- This course has been assigned a physical classroom with enough capacity to maintain physical distancing (6 feet between individuals) requirements. Please utilize designated lab stations and maintain appropriate spacing between students. Please do not move desks or stations.
- Sanitizing supplies are available in the classroom if you wish to wipe down your desks prior to sitting down and at the end of the class.
- Follow your instructor's guidance on how to enter and exit the classroom. Practice physical distancing to the extent possible when entering and exiting the classroom.
- If you are experiencing COVID-19 symptoms ([Click here for guidance from the CDC on symptoms of coronavirus](#)), please use the UF Health screening system and follow the instructions on whether you are able to attend class. [Click here for UF Health guidance on what to do if you have been exposed to or are experiencing Covid-19 symptoms](#).
- Course materials will be provided to you with an excused absence, and you will be given a reasonable amount of time to make up work. [Find more information in the university attendance policies](#).

## ATTENDANCE INFORMATION

### LAB PERIOD

You are expected to attend lab during your scheduled lab period, and to leave the laboratory when the lab period ends. Everyone is given the same amount of time to complete the experiments. If you are well prepared, you should not experience difficulties completing the experiments within the allotted timeframe. You may not arrive early, stay late, or attend during a different lab period to complete your laboratory activities. You will not be allowed to enter lab if you are more than 15 minutes late. If you are more than 15 minutes late due to an extreme circumstance beyond your control, you may submit a request for an excused absence (see the absences policy below).

### LAB ATTENDANCE

Attendance in the General Chemistry lab is critical for this course. Each laboratory period you will learn techniques and concepts that will continue to be important throughout the semester and in your future lab career. It is essential that you be present and prepared for lab each time that it convenes. Your TA will take careful attendance each lab period while circulating during the lab period and grading notebooks. You are responsible for making sure that your attendance has been recorded. If you aren't sure whether or not you've signed the attendance sheet, check with your TA and do so before leaving. If you are not in attendance you will receive a score of 0 for your Lab Notebook and on other lab related assignments for that period. **The attendance sheet is the official attendance record!**

## ABSENCES

Excused absences are for extenuating circumstances only: documented illness, family emergencies, or university approved absences. Travel, non-emergency doctor or dentist appointments, or extracurricular activities do not justify an excused absence. Missing lab due to improper lab attire or missing a mask does not qualify for an excused absence. Emailed requests to “preview” excused absences will be ignored; it should be clear what constitutes an excused absence. Students who miss a normal lab due to extenuating circumstances may submit a request for an excused absence within 7 days of the missed lab period. For students whose lab absences are approved, all post-lab assignments will be excused and their grade will be determined based on the remaining assignments. As a result, every other grade in the course counts for more of the student’s final grade. Students who miss the lab practical due to extenuating circumstances must request a makeup for the lab practical within 1 day of the missed lab practical to ensure time for scheduling. Students will be scheduled to take the makeup lab practical in the last week of the semester. It is the student’s responsibility to make time in their schedule for the make-up lab practical. To have a request considered for approval, you must (1) submit a filled & signed request form (found on Canvas) to the Lab Coordinator (Canvas email); and (2) request an excuse note from the Dean of Students Office if missing lab due to illness or emergency. If you know in advance that you will need to miss a lab session, please submit your request as early as you can, even in advance. Requirements for class attendance in this course are consistent with university policies that can be found at: <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>. Any student who misses more than two lab sessions (excluding religious observances, disability related absences, or military leave), whether excused or unexcused, will receive a grade of E in the course.

## GRADING

### DEADLINES AND LATE POLICY

Pre-lab quizzes are due at 8:00 am the day of a student’s scheduled lab period. There are also some initial assignments due on September 11th 11:59pm. Quizzes cannot be completed late for any credit. For best performance, use only Firefox or Chrome for quizzes. Make sure you start well in advance of the due date/time, in case your computer’s clock differs from official Canvas time. All due dates/times are in EST. All other lab-related assignments are due by 11:59pm the day following the student’s lab section. Lab assignments that are submitted late will be deducted 25% credit per day that they are late. The penalty is applied even if the submission is received by Canvas one second past the 11:59pm deadline, so be mindful of time. Emailed assignments are not considered for grading. We highly recommend you submit assignments early and verify they’ve been submitted through Canvas. If you have personal computer issues there are computers on campus available for student use.

### GRADE BREAKDOWN

Each laboratory is comprised of a Pre-Lab quiz, a Pre-Lab Notebook grade, a Post-Lab exercise, and an Attendance/Participation score. Each lab as a whole is weighted equally to your final grade. Within each lab exercise, assignments are weighted according to the published point values in Canvas. If there is any confusion about this, please contact the course coordinator. Detailed information regarding each of these grading items is provided in Canvas. Assignment weights are as follows:

Assignment Group	Weight %
Safety/Surveys/Syllabus	5%
Pre-lab Quizzes	20%
10 Labs @ 6.0% each	60%

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## Lab Practical Assignment

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15%

Grade scale (note: there is no rounding to your score in Canvas):

Letter	A	A-	B+	B	B-	C+	C	D+	D	D-	E
Cutoff	≥93.0	≥90.0	≥86.0	≥83.0	≥80.0	≥76.0	≥70.0	≥66.0	≥63.0	≥60.0	<60.0

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### LAB PRACTICAL

Part of your course grade will be based on your performance on the Lab Practical. This is a timed and online - proctored assignment that is scheduled for Wednesday, December 16<sup>th</sup> starting at 10:00 am (1 h). You will have 1 hour complete the lab practical individually. It will assess skills that you have used throughout the semester.

You will be proctored for this assignment via HonorLock. You will be required to use Chrome and install the HonorLock extension. You will be required to have a functional webcam and microphone. A student guide for HonorLock and an HonorLock practice quiz will be posted prior to the lab practical date.

### RE-GRADES

All lab assignment grades are graded by your TA so you should communicate any lab notebook grade disputes to your TA. Your TA will address your concerns at that time and make any necessary corrections. If your TA finds it necessary to re-grade your lab notebook, he/she will correct the grade on your notebook and on his/her grade sheet immediately. The notebook must be scanned and submitted to Canvas to the relevant assignment in order for points to be considered toward your course grade.

Regrades of assignments submitted through Canvas, typically via file upload, must be requested within 7 days of a grade being assigned, and should be directed to your TA. If there was a technical issue with the file that was submitted on Canvas, the file can be resubmitted via the comments section to be regraded, but the assignment will suffer a 50% penalty. Technical issues are the student's responsibility so it is recommended that you check your submission when you upload it on Canvas.

### UNIVERSITY POLICIES

#### 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 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

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following 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 (e.g. assignments, papers, quizzes, exams). 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: <http://www.dso.ufl.edu/SCCR/honorcodes/honorcode.php>.”

## U MATTER, WE CARE

Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu) so that the U Matter, We Care team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing Staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

## EVALUATIONS

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/> . Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/> . Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/> .

## CONFLICTS

If you experience issues with CHM2046L that you cannot resolve with your TA, please write directly to Dr. Lopez and request a meeting (if required) by zoom. Don't wait until the end of term to resolve an ongoing issue.

## OBJECTIVES/OUTCOMES/GOALS

This course satisfies the General Education requirement in the Physical Sciences.

A minimum grade of C is required for general education credit.

## PHYSICAL SCIENCE GENERAL EDUCATION PROGRAM OBJECTIVES

Physical science courses provide instruction in the basic concepts, theories and terms of the scientific method in the context of the physical sciences. Courses focus on major scientific developments and their impacts on society, science and the environment, and the relevant processes that govern physical systems. Students will formulate empirically-testable hypotheses derived from the study of physical processes, apply logical reasoning skills through scientific criticism and argument, and apply techniques of discovery and critical thinking to evaluate outcomes of experiments.

These objectives are accomplished through participation in the lab sections, and individual work done on homework assignments and assessments.

## GENERAL EDUCATION STUDENT LEARNING OUTCOMES

Area	Institutional Definition	Institutional SLO
<b>CONTENT</b>	Content is knowledge of the concepts, principles, terminology and methodologies used within the discipline.	Students demonstrate competence in the terminology, concepts, methodologies and theories used within the discipline.
<b>COMMUNICATION</b>	Communication is the development and expression of ideas in written and oral forms.	Students communicate knowledge, ideas, and reasoning clearly and effectively in written or oral forms appropriate to the discipline.
<b>CRITICAL THINKING</b>	Critical thinking is characterized by the comprehensive analysis of issues, ideas, and evidence before accepting or formulating an opinion or conclusion.	Students analyze information carefully and logically from multiple perspectives, using discipline specific methods, and develop reasoned solutions to problems.

Naturally, all three areas of learning outcomes will be assessed in all categories of graded assignments.

## SPECIFIC GOALS OF CHM2046L

You will be required to analyze scientific concepts and think critically. This means being able to answer both quantitative (mathematical) and conceptual (qualitative) problems in a limited period of time. Additionally, you will have to write and/or orally communicate during your scheduled lab periods. You will be required to utilize the methods of science as a logical means of problem solving through critical thinking. This means you must analyze information carefully and logically from multiple perspectives, using discipline specific methods, and develop reasoned solutions to problems. To ensure your competency in these concepts you will be required to complete quizzes and assignments that require critical thinking, analysis of problems, and drawing conclusions. Of particular importance in the lab course will be your ability to collect data, organize the data logically, generate a meaningful graphical representation of the collected data, and draw conclusions from the total exercise.

## DISCLAIMER

This syllabus represents my current plans and objectives. If those need to change as the semester progresses, which is not unlikely, then the changes will be communicated to the class clearly.