

CHM2046L GEN CHEM II LAB, FALL 2021

INSTRUCTOR INFORMATION

COURSE COORDINATOR

The course coordinator for this course is Dr. Korolev. The best method to contact Dr. Korolev is via Canvas email. Virtual office hours are also available by appointment.

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 teaching assistant during the first lab meeting and they will provide you with their contact information.

GENERAL INFORMATION

COURSE DELIVERY

This course will be delivered 100% face-to-face. All lab meetings will occur during your scheduled lab time. The schedule is subject to change and changes will be communicated via Canvas announcements.

MEETING TIME/LOCATION

CHM2046L meets once per week in CCB 110 during your scheduled lab period. The meeting time can be found on your schedule on ONE.UF. You will enter the lab from the atrium in CCB once the lab managers let you in.

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

Your first in-person lab meeting will be the week of September 7th, but you have assignments due the week prior. The first deadline for online assignments is September 2nd at 11:59pm - check Canvas for details. During your first lab meeting, you will meet your TA and fellow classmates, and complete the first lab activity. You will not be allowed to enter lab without proper safety attire, including approved eye protection, or without being cleared for campus. Prior to attending each lab period, you must familiarize yourself with the lab background and procedure, and complete the pre-lab quiz and submit your pre-lab notebook online. Pre-lab assignments will be due at 8:00am on your scheduled lab day. During the lab meeting, you will work on performing the lab and completing all post-lab assignments. Your lab workstation is equipped with a computer on which you can access all of the lab materials. Your attendance will be recorded during the lab period. After the lab period, you will submit your post-lab assignments online to be graded. Post-lab assignments will be due at 11:59pm on the day of your scheduled lab.

COURSE REQUIREMENTS

REQUISITES

Detailed requisite information and credit suitability can be found in the Undergraduate Catalog.

REQUIRED MATERIALS

You will require: a computer with an internet connection and Excel, a suitable laboratory notebook such as a standard composition notebook, and department approved safety glasses or goggles. See the safety glasses requirements at <https://otl.chem.ufl.edu/safety-glasses/>

GOGGLES AND ATTIRE

You must be wearing department approved safety glasses or goggles, and be properly attired to be admitted to the laboratory at all times, including on the first day of lab. Anyone without safety glasses, or who is inappropriately attired, will not be allowed into the lab. Students who are not cleared for campus will not be allowed to enter lab and students are expected to wear an approved face covering at all times within the lab. Additionally, no gum chewing or headphones will be allowed. If you are asked to leave the lab due to improper attire, you will not be permitted a makeup. You can leave and return as long as it is within 15 minutes of the start of the period.

LAB 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)

Students will begin meeting for lab the week of September 7th, but there are online assignments due the week prior. This lab schedule is subject to change - students should keep their schedule free so that they are available during their scheduled lab meeting time every week. Flex days may be used if regularly scheduled lab days need to be rescheduled. Changes will be communicated via Canvas announcements; it is students' responsibility to read the Canvas announcements and follow the provided information.

| DATES | MONDAY | TUESDAY | WEDNESDAY | THURSDAY |
|-----------------|--|----------------|-------------------|-------------------|
| Aug 23 - Aug 27 | NO LABS | | | |
| Aug 30 - Sep 3 | First Online Assignments due September 2 nd | | | |
| Sep 6 - Sep 10 | HOLIDAY - NO LABS | Beer's Law Lab | | |
| Sep 13 - Sep 17 | Beer's Law Lab | Kinetics Lab | | |
| Sep 20 - Sep 24 | Equilibrium Constant Lab | | | |
| Sep 27 - Oct 1 | Le Chatelier Lab | | | |
| Oct 4 - Oct 8 | Acids & Bases Lab | | | |
| Oct 11 - Oct 15 | Titrations Lab | | | |
| Oct 18 - Oct 22 | Transition Metals Lab | | | |
| Oct 25 - Oct 29 | Thermodynamics Lab | | | |
| Nov 1 - Nov 5 | Galvanic Cells Lab | | | |
| Nov 8 - Nov 12 | Kinetics Lab | Flex Days | | HOLIDAY - NO LABS |
| Nov 15 - Nov 19 | Electrolytic Cells Lab | | | |
| Nov 22 - Nov 26 | Flex Days | | HOLIDAY - NO LABS | |
| Nov 29 - Dec 3 | Lab Practical | | | |
| Dec 6 - Dec 10 | Flex Days | | | NO LABS |

ATTENDANCE INFORMATION

LAB PERIOD

You are required to attend lab in-person during your scheduled lab period. If you are well-prepared, you should not experience difficulties completing the experiments within the allotted timeframe and submitting post-lab assignments that day. Your attendance will be recorded during lab. If you are more than 15 minutes late, you will not be allowed to enter lab and you forfeit your attendance points for the day. Any student who has an unexcused absence will not be allowed to submit any post-lab assignments.

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 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 lab due to extreme circumstances beyond their control may submit a request for a makeup lab within 7 days of the missed deadline. To have a request considered for approval, you must (1) complete the Absence Request Form on Canvas; and (2) provide documentation by either attaching a doctor’s note to the form (if due to illness) or request an excuse note from the Dean of Students Office (if due to a family emergency). Requirements for class attendance and make-ups in this course are consistent with university policies that can be found in the [Undergraduate Catalog](#). Any student who misses more than 2 lab sessions (excluding religious observances, disability related absences, military leave, or extreme circumstances), whether excused or unexcused, will receive a grade of E in the course.

GRADING

DEADLINES AND LATE POLICY

The first assignments for the course are due online on September 2nd at 11:59pm. The remaining lab activities will be locked on Canvas until the safety contract is completed. If you miss any assignments due to not completing the contract, you will forfeit the grades.

Each week you will have pre-lab assignments and post-lab assignments. The pre-lab assignments will be due at 8:00am the day of your scheduled lab period. All other lab-related assignments are due by 11:59 pm the day of your scheduled lab period. All deadlines are in EST.

Pre-lab assignments 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 deadline in case your computer’s clock differs from official Canvas time. Post-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. We do not recommend using the Canvas App to submit assignments - use a web browser to avoid issues. If you encounter technical issues, you can contact the Help Desk at 352-392-4357.

For extensions due to illness/emergency, a Dean of Students note must be provided for at least the 2 days prior to the assignment’s deadline for accommodations to be considered. Extensions will not be given because of technical or personal issues that occur within 24 hours of the assignment deadline.

GRADE BREAKDOWN

Each laboratory is comprised of a Pre-Lab quiz, a Pre-Lab Notebook grade, a Post-Lab Notebook grade, and various other assignments specific to that lab. Each lab as a whole is weighted equally toward 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/Syllabus/Surveys | 5% |
| 10 Labs @ 8% each | 80% |
| Lab Practical | 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 |

LAB PRACTICAL

Part of your course grade will be based on your performance on the Lab Practical. This is a timed and proctored assignment that is scheduled during one of your lab periods. You will complete the lab practical individually and it will assess skills that you have used throughout the semester.

Absences will be handled in accordance with official UF academic regulations. For more information, see <https://catalog.ufl.edu/UGRD/academic-regulations/>. If you are absent for an exam due to an unpredicted documented medical reason or family emergency, you must contact the instructor as soon as possible, and you may be asked to have your excuse verified by the Dean of Students Office (DSO). Your instructor will follow UF academic regulations in evaluating the notification and/or documentation received from you or from the DSO on your behalf. Once your instructor is satisfied with the validity of your absence a make-up lab practical will be scheduled after a reasonable amount of time, i.e., before the end of the semester. If your documentation is deemed insufficient to excuse your absence you will receive a zero on the lab practical.

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.

EDUCATIONAL RESEARCH STUDY

This semester, CHM2046L is part of a chemical education research study within the Department of Chemistry and the College of Education at UF, investigating persistence in STEM fields among students enrolled in our undergraduate lab courses. The study includes three surveys, the first of which includes an Informed Consent question.

To participate in the study, students will agree to the Informed Consent Form as part of the first research survey by the survey due date. If you do not wish to participate in the study and have your survey data removed from the collected data, you still must complete the three surveys. We do ask you to participate in the study since the data collected may prove valuable. Please note that you will have to complete all three surveys prior to their due dates to earn a portion of your course grade; these surveys are included in the Survey category in your gradebook. Participation does not influence your course grade in any way.

CONFLICTS

If you experience issues with CHM2046L that you cannot resolve with your TA, please contact the course coordinator. Don't wait until the end of term to resolve an ongoing issue.

UNIVERSITY POLICIES

COVID PRACTICES

In response to COVID-19, the following practices are in place to maintain your learning environment, to enhance the safety of our in-classroom interactions, and to further the health and safety of ourselves, our neighbors, and our loved ones:

If you are not vaccinated, get vaccinated. Vaccines are readily available at no cost and have been demonstrated to be safe and effective against the COVID-19 virus. Visit this link for details on where to get your shot, including options that do not require an appointment: <https://coronavirus.ufhealth.org/vaccinations/vaccine-availability/>. Students who receive the first dose of the vaccine somewhere off-campus and/or outside of Gainesville can still receive their second dose on campus.

You are expected to wear approved face coverings at all times during class and within buildings even if you are vaccinated. Please continue to follow healthy habits, including best practices like frequent hand washing. Following these practices is our responsibility as Gators.

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. Hand sanitizing stations will be located in every classroom.

If you sick, stay home and self-quarantine. Please visit the UF Health Screen, Test & Protect website about next steps, retake the questionnaire and schedule your test for no sooner than 24 hours after your symptoms began. Please call your primary care provider if you are ill and need immediate care or the UF Student Health Care Center at 352-392-1161 (or email covid@shcc.ufl.edu) to be evaluated for testing and to receive further instructions about returning to campus. UF Health Screen, Test & Protect offers guidance when you are sick, have been exposed to someone who has tested positive or have tested positive yourself. Visit the UF Health Screen, Test & Protect website for more information.

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.

If you are withheld from campus by the Department of Health through Screen, Test & Protect you are not permitted to use any on campus facilities. Students attempting to attend campus activities when withheld from campus will be referred to the Dean of Students Office.

Continue to regularly visit coronavirus.UFHealth.org and coronavirus.ufl.edu for up-to-date information about COVID-19 and vaccination.

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.

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 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/>.

NETIQUETTE

All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions, and chats.

OBJECTIVES/OUTCOMES/GOALS

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

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 |
|--------------------------|---|---|
| CONTENT | 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. |
| COMMUNICATION | 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. |
| CRITICAL THINKING | 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.