

CHM2045L GEN CHEM I LAB

SPRING 2023

COURSE COORDINATOR INFORMATION

Instructor	Email	Phone	Office Hours
Dr. Korolev	Email in Canvas	352-392-1087 (email preferred)	Virtual office hours available by appointment

LAB MANAGER

The lab managers are Candace Biggerstaff and Jacob McCartney. They can be contacted via Canvas email.

TEACHING ASSISTANT

To be assigned prior to your first scheduled lab session in SFH 110. You will meet your TA at the first scheduled lab session and they will provide you with their preferred methods of contact.

COURSE FEES

Additional Course Fees: \$30.00.

GENERAL INFORMATION

COREQUISITES

CHM2045L is to be taken with CHM2045. Detailed prerequisite information and credit suitability can be found in the Undergraduate Catalog.

COURSE DELIVERY

This course is delivered 100% face-to-face. All lab meetings occur during your scheduled lab time, at the start of the block of time.

COURSE DESCRIPTION AND GOALS

As both a general education requirement and major's course, CHM2045L 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 CHM2045 lecture.

By the end of this course, students will be able to apply the scientific method, to collect data and perform calculations, to create and analyze tables of data and graphs of various forms, and to analyze experimental error. Students will be able to refer to literature data and will acquire library skills. Students will be able to use a variety of laboratory glassware and equipment safely, and will be able to handle chemicals safely. Students will learn fundamentals of safety in an academic laboratory setting.

FIRST DAY OF LAB

Your first in-person lab meeting will be the week of May 22nd, but you have assignments due the week prior. The first deadline for online assignments is May 19th at 11:59 pm - check Canvas for details. On the first day of lab, you will meet your TA and fellow classmates, and complete the first scheduled lab activity. You are not permitted to enter the lab without proper safety attire, including approved eye protection. 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 in Canvas; these assignments cannot be turned in after their due date/time for credit. Each workstation in the lab is equipped with a computer that allows access to eLearning to view the lab documentation, and to UF Apps.

Your attendance is recorded during the lab period. During or after the lab period, you will submit your during- and post-lab assignments in Canvas for grading. During lab assignments are due prior to the end of your lab time/day; note that if the lab activity is finished early and your lab group and TA depart the lab, you are not permitted reentry to submit the during lab assignments. During-lab assignments can only be submitted from a workstation in the lab. During lab assignments cannot be turned in late. Post lab assignments are due at 11:59 pm the night of your scheduled lab day. There is sufficient time in the lab period for you to complete the laboratory exercise and complete your post-lab notebook. Post-lab assignments can be turned in late for reduced credit (-25% per day late). If you are marked absent by your TA or fail to complete the attendance quiz during the allotted time at the start of lab, you will not be permitted to turn in the post lab assignments and forfeit the grades. Students are not permitted to enter the lab after the first 15 min of the lab period and are considered absent. Students who miss lab due to extreme circumstances may submit a request for a makeup lab within 7 days of the missed lab session.

COURSE MATERIALS AND SAFETY

REQUIRED MATERIALS

- Approved safety glasses/goggles and proper attire. You will be asked to leave the lab if not properly attired. See the safety glasses requirements at <https://otl.chem.ufl.edu/safety-glasses/>
- You require a suitable laboratory notebook. Our recommendation is a standard composition notebook. Electronic devices are not suitable for notetaking.
- All UF students are expected to satisfy the UF computing requirement and have access to a computer with an internet connection. You also require Excel.

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 the necessary safety glasses, or who is inappropriately attired, will not be allowed into the lab. No gum chewing or headphones are permitted. 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 you return within 15 min of the start of your lab period.

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. In addition, there is a series of safety-focused assignments within most of the lab activities. Together, the safety assignments are worth a dedicated portion of your course grade.

LOGISTICS/CLEANLINESS

You will be paired with a lab partner for the duration of the semester. You should check your group's glassware for cleanliness before beginning each lab. If any glassware is broken during the lab session, communicate this immediately to your TA so it can be replaced/cleaned up.

LAB SCHEDULE (SUBJECT TO CHANGE)

Students will begin meeting for lab the week of May 22nd, 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	Wednesday	Thursday	Friday
May 15 - May 19	No Labs - First Online Assignments due May 19 th		
May 22 - May 26	Density Lab		
May 29 - June 2	Hydrates Lab		
June 5 - June 9	Stoichiometry Lab		
June 12 - June 16	Gases Lab		
June 19 - June 23	Calorimetry Lab		
June 26 - June 30	Summer Break		
July 3 - July 7	Dilution and Beer's Law Lab		
July 10 - July 14	Kinetics Lab		
July 17 - July 21	Electrolytes Lab		
July 24 - July 28	Lewis Structures Lab		
July 31 - Aug 4	Heating/Cooling Curves Lab		
Aug 7 - Aug 11	Flex Days (Final Lab Exam on August 8 th)		

ATTENDANCE INFORMATION

LAB PERIOD

You are expected to attend lab in person during your scheduled lab period, and to leave the laboratory prior to the end of your 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. If you are more than 15 min late, you will not be allowed to enter lab and will forfeit attendance points for the day. Any student who has an unexcused absence is not allowed to submit any during-lab and post-lab assignments related to the missed lab period.

ABSENCES

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/>.

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. Excused absences are not granted for exams or makeup exams for other classes. Missing lab due to improper lab attire does not qualify for an excused absence. Emailed requests to “preview” excused absences are 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 d of the missed lab session. 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).

Any student who missed 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.

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.

GRADING

DEADLINES AND LATE POLICY

You will have a partner for lab, but all assignments are completed individually, and submitted and graded individually. Each student must submit each required assignment to receive a grade. While you collect data, make observations, and work on graph activities with your partner, it is required that you submit your own work. Do not submit a copy of your lab partner’s graph, for example; this is considered copying and is counter to the Honor Code. All Honor Code violations are reported.

The first assignments for the course are due online on May 19th at 11:59 pm. The remaining lab activities will be locked on Canvas until the Safety Contract is submitted. If you miss any assignments due to not completing the contract, you will forfeit the grades.

Each week you will have pre-lab assignments, during-lab assignments, and post-lab assignments. The pre-lab assignments are due at 8:00 am the day of your scheduled lab period. During-lab assignments are due during your scheduled lab period and must be completed from a workstation within the lab; these assignments cannot be turned in late for credit. All other lab-related assignments are due by 11:59 pm the of your scheduled lab period. All deadlines are in EST.

Pre-lab assignments and during-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. 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 11:59 pm 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.

Extensions will not be given because of technical or personal issues that occur within 24 hours of the assignment deadline.

LAB EXAM

A multiple-choice lab exam will be administered during the scheduled assembly exam time, May 8th from 7:00 pm - 9:00 pm, in rooms TBA. The exam is a cumulative final exam that covers everything in the lab manual (the modules in Canvas).

Bubbling errors will not be negotiated. A 5 point penalty will be applied for failure to bubble in a UFID correctly or not taking the exam in the assigned room. A 30 point penalty will be applied for failure to bubble in a form code or the wrong form code or for using a writing implement that cannot be scanned.

Exam absences will be handled in accordance with official UF academic regulations. For more information, see <https://catalog.ufl.edu/UGRD/academic-regulations/> . See below for further clarification for two different types of situations.

(1) Conflicts with other events: Such reasons may include religious holidays, military obligations, special curricular requirements (e.g., attending professional conferences), or participation in official UF-sanctioned activities such as athletic competitions, etc. For more information on such absences see the official UF Policy at <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/#absencestext>). If you must be absent for an exam due to a documented and approved conflict known in advance, you must e-mail your instructor (within Canvas) the documentation at least one week prior to the scheduled exam and an early conflict exam will be scheduled for you (before the regularly scheduled exam date/time).

(2) Missing an exam due to an emergency or sudden illness: 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 exam absence a make-up exam 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 missed exam.

GRADE BREAKDOWN

Each laboratory exercise is comprised of a pre-Lab quiz, a notebook grade, a during-lab graph or image, a post-Lab notebook, and various other assignments specific to that lab. Each lab exercise as a whole is weighted equally to your final grade. Within each lab exercise, assignments are weighted according to the published point value. If there is any confusion about this, please email the instructor. Detailed information regarding each of these grading items is provided in Canvas.

Assignment weights are as follows:

Assignment Group	Weight %
Surveys/Syllabus/Safety	10%
Lab Assignments (10 @ 7.5% each)	75%
Final Lab Exam	15%
Total	100%

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

RE-GRADES

Communicate any lab notebook grade disputes to your TA, either via comment in Canvas, by email, or during the next lab period, and your TA will address your concerns. Requests for grade review must be made within 7 d of a grade being assigned in Canvas. Assignments must be scanned/photographed and submitted to Canvas to the relevant assignment in order for points to be considered toward your course grade. Most assignments require submissions in .pdf format.

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, CHM2045L 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.

GENERAL EDUCATION OBJECTIVES AND LEARNING OUTCOMES

Primary General Education Designation: Physical Sciences (P) ([area objectives available here](#))

A minimum grade of C is required for general education credit. Courses intended to satisfy the general education requirement cannot be taken S/U.

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.

In CHM2045L, these objectives will be met in a variety of ways detailed below.

At the end of this course, students will be expected to have achieved the following learning outcomes in content, communication, and critical thinking:

Content: *Students demonstrate competence in the terminology, concepts, theories and methodologies used within the discipline.* Students will acquire a basic knowledge of a variety of chemistry concepts and discipline specific terminology, including nomenclature, classification of reaction types, terminology related to the periodic table, and that used to describe energetics of reactions. Students acquire practical lab skills including safe handling of equipment, materials, and chemicals in the lab, and safe handling of laboratory waste, including hazardous waste. Achievement of this learning outcome will be assessed through quizzes, laboratory assignments, designated safety assignments, and the final lab exam.

Communication: *Students communicate knowledge, ideas, and reasoning clearly and effectively in written and oral forms appropriate to the discipline.* Students participate in discussion with other students and their TA/instructor throughout the semester. Students respond to prompts in writing in their laboratory notebooks. Students sketch diagrams of various forms, and draw chemical structures. Achievement of this learning outcome is assessed through student laboratory notebooks and related laboratory assignments, and the final lab exam and quizzes.

Critical Thinking: *Students analyze information carefully and logically from multiple perspectives, using discipline-specific methods, and develop reasoned solutions to problems.* Students formulate and express hypotheses and use logic and reasoning to reflect on laboratory exercises. Students refer to scientific literature and databases and make inferences based upon experimental data. Achievement of this learning outcome is assessed by laboratory assignments, quizzes, and the final lab exam.

COURSE LEARNING OUTCOMES

A complete list of student learning outcomes is posted in Canvas, organized by laboratory experiment.

UNIVERSITY POLICIES

STUDENTS REQUIRING ACCOMMODATIONS

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center by visiting disability.ufl.edu/students/get-started. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

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>.

CAMPUS RESOURCES

U Matter, We Care: If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit [U Matter, We Care website](#) to refer or report a concern and a team member will reach out to the student in distress.

Counseling and Wellness Center: Visit the [Counseling and Wellness Center website](#) or call 352-392-1575 for information on crisis services as well as non-crisis services.

Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need, or visit the [Student Health Care Center website](#).

University Police Department: Visit [UF Police Department website](#) or call 352-392-1111 (or 9-1-1 for emergencies).

UF Health Shands Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; Visit the [UF Health Emergency Room and Trauma Center website](#).

GatorWell Health Promotion Services: For prevention services focused on optimal wellbeing, including Wellness Coaching for Academic Success, visit the [GatorWell website](#) or call 352-273-4450.

ACADEMIC RESOURCES

E-learning technical support: Contact the [UF Computing Help Desk](#) at 352-392-4357 or via e-mail at helpdesk@ufl.edu.

[Career Connections Center](#): Reitz Union Suite 1300, 352-392-1601. Career and counseling services.

[Library Support](#): Various ways to receive assistance with respect to using the libraries or finding resources.

[Teaching Center](#): Broward Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring.

[Writing Studio](#): 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers.

Student Complaints On-Campus: Visit the [Student Honor Code and Student Conduct Code webpage](#) for more information.

On-Line Students Complaints: View the [Distance Learning Student Complaint Process](#).

FEEDBACK

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. A detailed guide is posted under the *Settling In* section in Canvas.

GETTING HELP

For issues with or technical difficulties with Canvas, contact the UF Help Desk: <https://lss.at.ufl.edu/help.shtml>; (352)-392-HELP.

Other resources are available at <http://www.distance.ufl.edu/getting-help> for Counseling and Wellness resources, disability resources, resources for handling student concerns and complaints, and library desk support.

CONFLICTS

If you experience issues with CHM2045L that you cannot resolve with your TA, please contact Dr. Korolev. Don't wait until the end of term to resolve an ongoing issue.

DISCLAIMER

This syllabus represents my current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.