

Chemistry 1441 Laboratory Syllabus

Fall 2021

Lab Coordinator: Dr. Cynthia Griffith cynthia.griffith@uta.edu
Office Hours: by appointment, either thru Teams or in person (CPB 114)

Required materials: CHEM 1441 Lab Manual, 8th Edition, Labflow online lab platform (labflow.com) and a scientific calculator. **All experiments will be performed in-person during the lab period and all lab assignments will be submitted in the Labflow online lab platform.**

Suggested Materials: A Sharpie marker (for glassware marking) and colored map pencils.

Safety Guidelines: IMPORTANT! You will be exposed to hazardous chemicals in this class. Personal protective equipment (PPE) is necessary to protect your body. You will **not** be admitted into the lab if any of the following guidelines are not met. If you violate any of the following guidelines, you may be asked to leave the lab. *All missed work will receive **zero** credit.*

1. Safety glasses are provided and are required at all times.
2. Shoes that cover the entire foot are required at all times. Absolutely **no** exceptions will be made to this guideline. Warnings will **not** be issued.
3. Long pants and sleeves are required at all times.
4. No musical or other entertainment devices may be used in chemistry lab at any time.
5. Cell phones are **not** permitted in lab and must be turned off and placed in your bag before you enter lab.
6. Facemasks are strongly recommended and should be worn at all times.

Mandatory Online Safety Training: Students registered for this course must complete the University's required "Lab Safety Training" prior to entering the lab and undertaking any activities. Students should complete the required module as soon as possible, but no later than their first lab meeting. Until all required Lab Safety Training is completed, a student will not be given access to lab facilities, will not be able to participate in any lab activities, and will earn a grade of **zero** for any uncompleted work.

1. Students must enroll themselves into the Lab Safety Training course at: <https://uta.catalog.instructure.com/browse/employees/ehs/courses/lab-safety-training-20212022> by clicking on the "Enroll" button available there. Follow instructions to enroll.
2. Login to **Canvas** at <https://uta.instructure.com> with your NetID and password.
3. Under **Courses**, click **Lab Safety Training**.
4. Follow the instructions, work your way through all of the modules and complete the two quizzes with a score of 80% or greater on each one in order to complete the training.

Once completed, Lab Safety Training is valid for the remainder of the same academic year (i.e. September through following August) for all UTA courses that include a lab. If a student enrolls in a lab course in a subsequent academic year, he/she must complete the required training again.

General questions about the Lab Safety Training, including content or enrollment should be directed to the Office of Environmental Health and Safety at ehsafety@uta.edu or (817) 272-2185. All technical questions/problems with online training should be directed to the Canvas Support Hotline either online or by calling 1 (855) 597-3401.

Teaching Assistants (TAs): Your TA's office hours will be held thru Teams and will be announced in lab and via email.

CHEM 1441 Lab Schedule

Week of:	Lab Schedule	
Aug 25-27	No Labs. Buy the lab manual in the bookstore. <u>Complete online safety training.</u>	
Aug 30-Sep 3	Mandatory Lab Check-in and Safety Orientation	Worksheet #1: Significant Figures
Sep 6-10	No Labs. Labor Day. Sign up for Labflow.	No Worksheet
Sep 13-17	UTA-801: Mass and Volume Measurements	Worksheet #2: Dimensional Analysis & Naming Ions
Sep 20-24	UTA-802: Separation of a Three Component Mixture	Worksheet #3: Rxn Stoichiometry
Sep 27-Oct 1	UTA-803: Formula of Copper Oxide	Worksheet #4: Empirical and Molecular Formulas
Oct 4-8	UTA-804: Titration of the Acid Content in Vinegar	Worksheet #5: Molarity & Solution Stoichiometry
Oct 11-15	UTA-805: Qualitative Analysis	Worksheet #6: Solubility Rules
Oct 18-22	UTA-806: The Ideal Gas Law and Gas Constant.	Worksheet #7: Dalton's Law of Partial Pressures
Oct 25-29	UTA-807: Hess's Law and Calorimetry	Worksheet #8: Calorimetry
NOV 1-5	UTA-808: Synthesis of Iron Tris Phen	No Worksheet
Nov 8-12	UTA-809: Spec Determination of Purity	Worksheet #9: Electronic Configurations
NOV 15-19	UTA-810: Atomic Emission Spectra of Gases	Worksheet #10: Lewis Structures
Nov 22-26	No Labs. Thanksgiving Holiday	No Worksheet
Nov 29-Dec 3	UTA-811: Chemiluminescence and Lab Check-out*	Worksheet #11: VSEPR
Dec 6-7	No Labs. Last day of classes is Tuesday, Dec 7.	
Dec 9-15	No Labs. University Final Exams.	

* Failure to attend or complete the lab check-out will result in a 50% deduction from lab technique score.

Grading: The lab average, which comprises 25% of the Chemistry 1441 grade, is determined the following way:

Pre-Lab Quiz (Labflow)	30%
Post-Lab Report (Labflow)	45%
Lab Problem Session Worksheet Quizzes	15%
Lab Technique Score	10%

- **The Pre-Lab Quiz is completed in Labflow** and is available to be completed in the week before the lab. It is due 1 hour before the start of your scheduled lab. Each quiz is allowed three attempts and the highest score is kept. Any student **not** scoring a minimum score of **70%** on the Pre-Lab Quiz will **not** be permitted to perform any face-to-face experiment that week.
- **The Post-Lab Report is completed in Labflow** and is available from the start of the experiment. It is due one week later at 11:59 the night before the next experiment. You are allowed multiple attempts on the lab report, however, there is a small point deduction for each additional attempt beyond the first.
- **Lab Problem Session Worksheet Quizzes** is completed in person and will be conducted during the first hour of most labs. These sessions are intended to provide a setting for students to work additional problems based on current lecture topics. During these sessions, students are encouraged to work in groups so that the immediate feedback from their peers and from the laboratory teaching assistant can help dispel common chemistry misconceptions. At the end of each session students will show mastery through a graded quiz. Grades will be posted in LabFlow.
- **The Lab Technique Score is assigned by your TA at the end of the semester** and is based on how well the lab techniques are learned and how much effort is put in during the face-to-face experiments. This is not a participation grade. Failure to attend or complete the lab check-out will result in a 50% deduction from your lab technique score.

All work, with the exception of computer-generated graphs, must be original and hand-written. Photocopied or computer-generated work will not be accepted. All work must be shown for full credit on assignments.

Your lowest pre-lab quiz and post-lab report grades will be dropped. If you miss one experiment for any reason it will simply count as the dropped grade. Additional missed labs will receive zero credit. Any zero resulting from Academic Dishonesty is not eligible to be the lowest grade dropped. Each experiment runs for one week only.

Unless authorized by the Lab Coordinator and or your TA, do **NOT** complete a lab report as an online assignment in LabFlow for an experiment for which you were absent. This is considered cheating and will be

addressed as such.

Attendance Policy: The following is from UT-Arlington Undergraduate Catalog's Academic Regulations section

Class Attendance

Class attendance and lateness regulations will be established by instructors and announced to their classes. At the discretion of the instructor, such regulations may or may not include provisions for making up work missed by the student as a consequence of an absence. Students who are late to class are responsible for reporting their presence to the instructor after the class is dismissed.

Information that stresses safety and technique is disseminated at the beginning of each lab period. Students are expected to be in the lab on time, and they will **not** be admitted to the lab more than 15 minutes after it begins. All missed work will receive zero credit. These 15 minutes are intended as a grace period for rare instances. It is not intended to become the norm. Abuse of this grace period will result in its cancellation.

You are required to attend lab in the section for which you have registered. Do not go to another lab section.

Academic dishonesty: All students enrolled in this course are expected to adhere to the UT Arlington Honor Code:

I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.

I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.

Instructors may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System *Regents' Rule* 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University.

Students with Disabilities: Students who need an accommodation based on disability should arrange to meet with the laboratory coordinator to see that they are appropriately accommodated.

Students with Pregnancies: For students who are pregnant, it is recommended by the Chemistry and Biochemistry Dept. that you do not enroll into a chemistry lab at this time. If you become pregnant during the semester, we recommend dropping the course as soon as possible; and special provisions will be made to assist you in finishing the course at a later date. ***Please see the Lab Coordinator for assistance.***

Face Covering Policy: All students and instructional staff are requested to wear facial coverings while they are on campus, inside buildings and classrooms (including labs). If students need masks, they may obtain them at the Central Library, the E.H. Hereford University Center's front desk or in their department. Masks will also be provided in the lab. Students who refuse to wear a facial covering in class are putting themselves and others in the room at higher risk of transmission of diseases, including COVID-19.

If you drop or fail Chemistry 1441, grades earned in the lab cannot be carried over when you re-take Chemistry 1441.