Course Syllabus

✎ Edit

CHEM 1430: General Chemistry I Laboratory

Course Description

This course is designed to accompany the CHEM 1410, 1412, or 1413 General Chemistry I lecture course. Many of the topics covered in this course will have direct correlation with the topics covered in your General Chemistry I lecture course. However, there may be times when the laboratory course is "ahead" of the lecture course. It is your responsibility to read all material presented on Canvas so that you can complete the assignments and experiments successfully.

Contact Information and Communication Policies

Instructor: John Nimmo

Office: Chemistry 168

Office Hours: Mondays 10:00 am - 11:30 am in my office.

Email: **john.nimmo@unt.edu (mailto:john.nimmo@unt.edu)**

If you need to contact me, send me an email. Email is usually answered within 24 hours, Monday through Friday. I will not respond to emails during the weekend. I will only respond to emails about course concerns from a **UNT email address**.

When emailing your Instructor or TA, you MUST include your **Full Name, Course Number, and Section Number** in order to receive a response. Canvas will not tell you the section you are in. You must look on **myUNT ⤴ (https://my.unt.edu)**. There are many sections of this course, all with over 20 students each. If you do not give me that information, I do not have the time to find you in all of those sections, so I will not look.

DO NOT use Canvas Inbox or LabFlow messages to contact me. I do not check for messages in Canvas or LabFlow and will not see your message. If you need to contact me, email me directly from your UNT email address.

I will use Canvas announcements for class-wide communication. Your TA will also use this feature during the semester as needed.

Prerequisites

Either concurrent or previous enrollment in CHEM 1410 (or equivalent course if transferring from another institution) is required.

CHEM 1430 is a separate course from CHEM 1410. If you drop one course, you are not automatically dropped from the other.

Required Texts, Technology, and Other Materials

- Labflow Access. Labflow is purchasable directly from their site, **https://www.labflow.com** ⇨ **(https://www.labflow.com)** or is available from the UNT Bookstore. Please follow the **enrollment instructions (https://unt.instructure.com/courses/137713/modules/1159888)** to get set up in the appropriate section.
- There is no required textbook for the course. All instructional material will be presented on Canvas and Labflow.
- You are required to provide your own chemical safety glasses or chemical safety goggles. Please see **this announcement (https://unt.instructure.com/courses/137713/discussion_topics/2602562)** for details.
- You are required to download and install Microsoft Office so that you can complete the reports for all experiments. Microsoft Office is provided by UNT. You can download and access Microsoft Office by signing into **Office.com** ⇨ **(https://www.office.com)** with your UNT email and password.
- Alternatively, you can access Office through the UNT remote software website, **https://it.unt.edu/remotesoftware** ⇨ **(https://it.unt.edu/remotesoftware)** . This site can be accessed from anywhere, but if the servers are busy or slow your connection may be refused. Downloading and installing Office on your machine is always the best way to go.
- You are required to have a stable internet connection to upload all assignments. Internet outages and unstable connections will not grant extensions on assignment due dates.
- If you do not have access to a stable internet connection at home, or you are unsure if your connection is stable, you are always welcome to utilize the computers available on the UNT Denton campus to complete your assignments.

Course Structure

All instructional material for this course is provided on Canvas and in Labflow. Most weeks, you will be expected to come in and perform an experiment. The day, location, and time you are scheduled to come in is based on the section you registered for. Please refer to your class schedule in **my.unt.edu** ⇨ **(https://my.unt.edu)** to know when you are expected come in to complete your experiment.

All the experiments will need to be completed on the day and time you registered for. Because of the large number of students enrolled in CHEM 1430, we cannot guarantee a time for you to come in and make up the missed experiment. If you need to make up an experiment, please **email the Instructor (not your TA!!)** and he will get you an appropriate make-up assignment.

Before each experiment, you will be expected to complete a pre-lab quiz. This assignment will test your understanding of the background material for the experiment. This background material is provided in the Introduction and Procedure for each experiment. You must read all of the provided materials and watch the provided videos in order to access the pre-lab quiz. You must complete the pre-lab quiz before the page for data entry and post-lab will be available. **If you wait until you are in the lab to do the pre-lab quiz, you will receive zero points for the quiz.** <u>Pre-lab quizzes are worth a significant portion of the course grade (25%).</u> <u>If you do not do the pre-lab quizzes, you are not likely to pass the course.</u> Additionally, if you wait until you are in the lab to read and watch the provided materials, you may not have time to complete the experiment. You will not receive points for incomplete experiments due to this, and you will not be able to make up the experiment.

You will need to complete a lab report for each experiment, where you will provide your data, calculations, and answer some questions regarding the experiment that are designed to force you to evaluate your performance during the experiment. I want you to think about things that could have been done differently to get better results. I also want you to acknowledge things that went well during the experiment so that you can replicate them in the future and encourage good laboratory practices. The Report for each experiment will be due one week after you complete the experiment, at the beginning of your next lab meeting.

Course Objectives

Upon successful completion of this course, learners will be able to *(numbered in order of presentation)*:

1. Demonstrate the ability to measure the volume of a liquid using various chemical glassware.
2. Analyze data using statistical methods in Excel.
3. Identify an unknown material from chemical and physical property data.
4. Demonstrate the ability to follow a chemical procedure.
5. Analyze data and observation to apply critical thinking skills to explain discrepancies in your data.
6. Compare the empirical formulas of simple compounds to known formulas and evaluate sources of error in an experimental design.
7. Model different compounds to determine electron and molecular geometries.
8. Verify active ingredients in a mass-produced product.
9. Demonstrate an ability to read the volume of a burette and determine the concentration of a liquid solution.
10. Evaluate trends in data to verify known physical laws.
11. Compare the molar mass of a gas based on experimental results.
12. Record detailed observations to determine the outcomes of a series of reactions.

Course Activities & Assignments

There will be 12 experiments that need to be completed in person in your assigned laboratory room on your assigned week. Grading for each experiment will consist of two sections for a total of 100 points per

experiment.

- Prelab Assignment: 25 points each
  - Each prelab assignment will be available for one attempt only. This attempt is not timed and will be open until the posted due date.
- Lab Report: 75 points each
  - Students must perform the experiment or have permission for an alternative assignment to receive credit.
  - Students will be evaluated on completion of experiment, safety during the experiment, proper cleanup of their lab station, and submission of their data.
  - Calculations will be graded based on correctness from the provided data.
  - Report questions will allow students to critically evaluate their data and their performance during the experiment. Many questions will require students to assess sources of error in their measurements and to devise explanations for trends in their data.
  - Students will get two attempts at submitting their report. These attempts are not timed and will be open until the posted due date.
  - Each student must submit their own report to receive a grade. Labflow does not allow for group submissions.

There will also be a comprehensive final exam at the end of the semester worth 100 points.

Grading

Grading is based on the total points earned throughout the semester rounded to the nearest whole number.

A: 1165 – 1300 points

B: 1035– 1164 points

C: 905 –1034 points

D: 775 – 904 points

F: 0 – 774 points

The percentages listed on Canvas will always be an incorrect representation of your grade in the course. The reason for this is because Canvas does not count missed assignments when calculating your percentage in the course. If you miss a lot of assignments, but do well on one or two, Canvas will list the assignments you completed and will show a high percentage in the course. This is incorrect because I look at the total number of points that you earned. Meaning that if you miss an assignment, those zero points are still calculated in your total points earned. To see an accurate representation of your grade in the course, you will need to add up all the points you have earned on Canvas and divide by the total points available for all the assignments up to that point in the semester.

Grading Turnaround

All prelab quizzes will be graded immediately and uploaded to Labflow. The data and calculations portions of your Report will be automatically graded with feedback made available immediately after each submission. The questions will be manually graded within 7-10 business days of your submission. If you do not have a grade after 10 business days from the due date, please email **john.nimmo@unt.edu (mailto:john.nimmo@unt.edu) (mailto:Timothy.Stephens@unt.edu)** as soon as possible so that he can figure out what is going on.

Late Work

I will not accept late work in this course. Canvas and Labflow will both lock submissions for an assignment once the due date has passed. Extensions will only be granted if a student has a **university-excused absence** ⬈ **(https://policy.unt.edu/policy/06-039)** and provides documentation within a reasonable time after the due date has passed. Late work is not accepted so that I can manage the large number of students and lab sections while still ensuring that grading is completed in a timely manner.

Attendance

Attendance is required to perform the experiments and collect data. Attendance will be taken via QR code at the end of every experiment. If your QR code is not scanned by your TA you will not have access to the report assignment, and it will not be graded.

If you have a **university-excused absence** ⬈ **(https://policy.unt.edu/policy/06-039)** with proper documentation, you are expected to email John Nimmo directly within 10 days of your missed class time to discuss options for earning missed points. Failure to provide documentation within those 10 days or for absences that are not university-excused will result in the missed day's work receiving a grade of 0 points. **Do not email your TA for absences. John Nimmo is the only person with access to allow alternative assignments in Labflow!!**

Due to this course being experience-based, if a student misses more than three (3) experiments for any reason, that student will automatically fail the course. This course is designed to teach safe chemical laboratory techniques and if a student is not present, I cannot in good conscience allow that student to move on to more advanced chemistry laboratory courses.

Students are expected to attend class meetings regularly and to abide by the attendance policy established for the course. It is important that you communicate with the professor and the instructional team prior to being absent, so you, the professor, and the instructional team can discuss and mitigate the impact of the absence on your attainment of course learning goals. Please inform the professor and instructional team if you are unable to attend class meetings because you are ill, in mindfulness of the health and safety of everyone in our community.

Grade Disputes

You are required to wait 24 hours before contacting me to dispute a grade. Within that time, I expect that you will review the assignment details and reflect on the quality of the work you turned in. If you would still like to meet, email me to set up a meeting (I cannot discuss grades over email). You should come to our scheduled meeting with specific examples that demonstrate that you earned a higher grade than you received. If you miss your scheduled meeting, you forfeit your right to a grade dispute. If you do not contact me to schedule a meeting within seven days of receiving your grade, you also forfeit your right to a grade dispute.

Extra Credit

There will be one guaranteed opportunity for extra credit in this course. At the end of the semester an assignment will open where you can submit a screenshot of your SPOT evaluation submission confirmation. SPOT evaluations are the primary way that we determine TA job duties and evaluate student's needs in this course. Please be critical, but respectful in your evaluation of your TA and the course. I take these evaluations seriously and many suggestions for improvement by former students have been implemented in subsequent semesters.

There may be other opportunities for extra credit throughout the semester. These will be assigned when they become available. Some extra credit opportunities may come in the form of additional awarded points on Post-lab Question assignments. These are generally awarded so that grading of those assignments is easier.

Academic Integrity

Academic integrity states that your work and every aspect of your work was produced with the highest of integrity and is free from cheating and plagiarism, that your work does not include any material that was fabricated, that your work and your records were not falsified via forgery, that you did not sabotage another academic's work, and that you did not facilitate another academic in violating academic integrity guidelines. Violating academic integrity policies is sometimes also called academic dishonesty. In this course, you are going to be held to the highest standards of academic integrity. You are going to be expected to uphold these principles with yourself, your fellow students, your TA, and your instructor.

Academic integrity is applied to any submission or activity that has your name on it, regardless of whether you violated these policies or not. Let me walk through an example. You are working on a group project and decide to split the report writing to different sections with each member writing a section. Your section is properly cited, but another section is flagged for a lot of plagiarism violations. Because your name is on that assignment, you are assuming responsibility that the entire assignment is free of any academic integrity violations along with every other group member. That means that every member

of the group (including yourself) will be held responsible for the academic integrity violation and you all will share the same punishment for that violation.

Cheating

UNT defines cheating as the following (Source: **UNT Policy 06.003 Student Academic Integrity** ⤳ **(https://policy.unt.edu/policy/06-003)**):

"'Cheating' means the use of unauthorized assistance in an academic exercise, including but not limited to:

use of any unauthorized assistance to take exams, tests, quizzes, or other assessments;

use of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments;

use, without permission, of tests, notes, or other academic materials belonging to instructors, staff members, or other students of the University;

dual submission of a paper or project, or resubmission of a paper or project to a different class without express permission from the instructor;

any other act designed to give a student an unfair advantage on an academic assignment."

For a laboratory course such as CHEM 1430, the lines defining cheating can sometimes seem like they get blurred because you are expected to work with a lab partner on every experiment. Working with another student and sharing answers on a graded assignment can be considered cheating in another course. Because of how the laboratories are set up here at UNT, it is completely understandable that you and your lab partner will have the exact same data and thus the same calculated results. What is not acceptable is using your lab partner's data when you did not perform the experiment or activity in class.

Additionally, using resources such as Chegg.com or even a student's work from a previous semester to complete your assignments is not allowed and will be considered cheating. I also completely understand that there will be times when you need to look something up or find a certain value to complete an assignment. Your instructor will give you these resources throughout the semester as needed to help you with your assignments. If a resource is linked or explicitly listed here on Canvas, it is considered an authorized source for you to utilize for your assignments.

Generative AI

Generative AI (AI) platforms are becoming an ever-present tool that can be used in your chemical careers. Each tool has its place in the scientific process to help guide you, but it is ultimately your responsibility as the chemist to make decisions about your data and to ensure that your data is processed correctly. In this course, I am going to set out a few rules that I expect you all to follow when it comes to the use of AI. These are examples meant to show commonly encountered situations in this

course. It is not comprehensive, nor can it be. If you are not sure if your usage case is appropriate, it is typically best to assume that it is not. You can always ask your instructor of record for guidance before using your AI tool.

1. I encourage the use of AI platforms such as ChatGPT, Gemini, or Copilot to help you summarize topics in a different way so that you can better understand the material. For example, Billy is struggling to understand VSEPR and needs to answer a postlab question about VSEPR. He has attended class, read the Introduction in Labflow, read the additional materials provided in Labflow, and completed a lab activity designed to help him understand VSEPR. Billy has gone to the tutors in the CRC, emailed his TA, and stopped by his instructor's office hours, but he still does not understand the concept. This would be a good time to ask ChatGPT for help. ChatGPT can provide a list of YouTube videos for Billy to watch. ChatGPT can summarize VSEPR based on the large number of websites that are freely available in a way that might be what Billy needs to understand the concept. With this knowledge, Billy can then write his own response to the postlab question.

2. I encourage the use of AI platforms such as Claude, Copilot, or Grammarly to help you fine-tune your work. Grammarly is a very useful tool, especially for students still defining their writing style, in doing basic checks on grammar and spelling. For example, Maria has written her postlab and realizes that she uses the same phrase repeatedly and is worried that she will get marked off for this. Maria can go to Claude and ask for some alternatives so that her writing flows better and isn't repetitive. My caution here for Maria would be to make sure that her alternative phrases still match her writing style and her tone for the assignment. Maria should also check that the alternative phrases she wants to use are appropriate for her audience as a chemist. Remember that the phrases "cottage in the forest" and "cabin in the woods" are both synonymous with each other but can hold very different meanings in different contexts.

3. AI cannot be used in this class to write your postlab responses. All work in this class must be your own. For example, Sally comes across a postlab question that requires a lengthier response than she is willing to deal with at the time. If Sally were to use Gemini to write that response for her, she would face academic integrity penalties for cheating and plagiarism because she used AI unethically and in a non-permissible manner (cheating) and she submitted the AI's writing as her own (plagiarism).

4. AI cannot be used to rewrite your postlab responses so that they fit whatever style you think I expect. You need to write in your voice. For example, Leeroy wants to make his postlab responses sound "professional." If Leeroy were to ask Copilot to rewrite his responses in a professional tone, this would be considered cheating and plagiarism and would be subject to academic integrity policies. Using Copilot to rewrite your work is not an authorized use of the tool (cheating), nor is submitting Copilot's work as your own (plagiarism).

5. AI should be used with caution to perform your data calculations in this class. It is far safer for your grade to perform your own calculations by hand than to rely on AI. The calculation sections of each experiment are programmed to fit with the material as it is presented in Labflow. Because this is an introductory-level course, many of these concepts are simplified so that you can start learning them without the rigorous mathematical background needed to complete the full calculation. For example, the method we teach equilibrium in CHEM 1440 is simplified mathematically so that you can learn the concept of equilibrium without getting bogged down by the complex calculations for more accurate equilibrium results. For example, Steve wants ChatGPT to do his calculations for him. Steve provides the data and the formulas to use and asks ChatGPT to perform the calculations. ChatGPT will then go through its database to define the variables used in the formula. Unfortunately, ChatGPT may not know the difference between different variable labels used in chemistry versus those used in mathematics, so ChatGPT will use the more populous variable definition, which may be incorrect for chemistry. This results in Steve getting a different answer than what is programmed in Labflow, which results in those points not being earned. If Steve wants to challenge the grading in Labflow, Steve will be required to show his work and "ChatGPT gave me this as the answer" is not a valid method for showing work.

Fabrication

UNT defines fabrication as "falsifying or inventing any information, data, or research outside of a defined academic exercise" (Source: **UNT Policy 06.003 Student Academic Integrity** ⤵ **(https://policy.unt.edu/sites/default/files/06.003.AcadIntegrity.Final_.pdf)**). Fabrication of data is a serious offense in any scientific field because it can have drastic implications for the public. In chemistry, this can include transforming your data to match what you think is expected to happen instead of finding an explanation for what happened. For this course, you will NEVER be penalized for having what you may consider "incorrect data." However, if your data does not seem like it was generated properly, you will be questioned about how your data was acquired. Another common source of fabrication in this course has to do with references on assignments. If you list a reference or state that a source is cited in an assignment, but then that information is not provided in the assignment, that is considered fabrication of your sources.

Facilitating Academic Dishonesty

UNT defines Facilitating Academic Dishonesty as "helping or assisting another in the commission of academic dishonesty" (Source: **UNT Policy 06.003 Student Academic Integrity** ⤵ **(https://policy.unt.edu/sites/default/files/06.003.AcadIntegrity.Final_.pdf)**). This is one of the most common violations of academic integrity in CHEM 1430 and is one of the hardest for many students to recognize. Most students who are accused of facilitating academic dishonesty do so out of the best of intentions. The best way I know to explain this type of violation is to walk through the following very common

scenario that occurs in CHEM 1430. Names are fictitious and are not meant to represent specific students.

Legolas and Gimli work together as lab partners on every experiment. One week, Gimli is absent from an experiment. Gimli asks Legolas to share the data that Legolas obtains so that Gimli can still complete the Data Submission and Post-lab Questions for the experiment. Legolas emails Gimli his data and Gimli completes his assignments.

In this scenario, Gimli would be accused of cheating because he utilized data that was not authorized by the instructor to complete the Data Submission and Post-lab Questions. Legolas would be accused of facilitating academic dishonesty because he knowingly shared his data with Gimli, thus facilitating Gimli's cheating. Even though Legolas most likely had the best of intentions in helping his lab partner, he still violated UNT's policy about facilitating academic dishonesty.

Forgery

UNT defines forgery as "intentionally falsifying or altering a score, grade, or official academic University record or the signature of another" (Source: **UNT Policy 06.003 Student Academic Integrity** ⤷ **(https://policy.unt.edu/sites/default/files/06.003.AcadIntegrity.Final_.pdf)**). This is probably one of the least common occurrences of an academic integrity violation in CHEM 1430. It is more common in other courses where assignments are submitted and graded on paper. Because everything is submitted and graded on Canvas, it is nearly impossible for a student to forge their grade or score on an assignment. There have been students who forge signatures for official documentation and records. The most common form of forgery that I have encountered involved forging a doctor's signature to falsify an excused absence. I have also had students get caught forging a false obituary and funeral program. These violations incur a much harsher penalty than a simple academic integrity violation because these potentially also incur a student code of conduct violation at UNT in addition to the academic integrity violation.

Plagiarism

UNT defines plagiarism as the following (Source: **UNT Policy 06.003 Student Academic Integrity** ⤷ **(https://policy.unt.edu/sites/default/files/06.003.AcadIntegrity.Final_.pdf)**):

"'Plagiarism' means use of another's thoughts or words without proper attribution in any academic exercise, regardless of the student's intent, including but not limited to:

the knowing or negligent use by paraphrase or direct quotation of the published or unpublished work of another person without full and clear acknowledgement or citation, or

the knowing or negligent unacknowledged use of materials prepared by another person or by an agency engaged in selling term papers or other academic materials."

Plagiarism is often one of the more difficult aspects of academic integrity to navigate but is also one of the more common forms of academic integrity violations that is reported. The main reason why plagiarism is so difficult for many academics to navigate is because it encompasses the unintentional misattribution of some other work within your own. Below is a link to a series of articles posted on Scribbr that are a great source to learn about the different forms of plagiarism, how to avoid plagiarism, plus the article gives some great tips for how to paraphrase ideas from other sources. To navigate to other articles, there is a menu in the upper left side of each article with links to the others in the series.

Link to Scribbr Articles: **https://www.scribbr.com/category/plagiarism/** ⤷ **(https://www.scribbr.com/category/plagiarism)**

There are many software packages and websites available to help identify potential sources of plagiarism and to help academics avoid the traps of unintentional plagiarism. For this course, I utilize TurnItIn to assess potential plagiarism. This tool in integrated directly into Labflow. You are welcome to utilize this tool when submitting your work. Shortly after you submit an assignment with TurnItIn, you will receive a similarity report that will mark passages and phrases that the system believes may have been plagiarized. I promise, as your instructor, to always review these reports before I make any decisions about whether you might have plagiarized or not.

For this class, I wanted to share some of the examples of plagiarism that I have reported to UNT in the past. This is not exhaustive and is meant to be an example of plagiarism specific to this course.

Direct copying from a Wikipedia article without quoting or using internal citations.

Attaching an image of a lab partner's hand drawn graph or figure to their data submission.

Uploading a post-lab question response that the student completed in a previous semester before having to drop the course and retake it.

If you are retaking this course, you do not have permission to upload the exact same material you previously submitted.

Paraphrasing and using the same phrasing as a lab partner in writing the post-lab question.

I understand that there may only be a certain number of ways to state results. This example, the student paraphrased a post-lab question that required individual critical thinking and evaluation of the results.

Not including internal citations for your sources.

Not including a list of sources that are cited in your assignment.

Sabotage

UNT defines sabotage as "acting to prevent others from completing their work or willfully disrupting the academic work of others" (Source: **UNT Policy 06.003 Student Academic Integrity** ⤷ **(https://policy.unt.edu/policy/06-003)**). While this violation may seem like something that does not occur

in CHEM 1430, it can be more common than you might expect because of the second half of the definition clause. "Willfully disrupting the academic work of others," when applied to a chemistry laboratory setting, can be as simple as a student being too loud or disruptive when they are asked to lower their voice or stop playing around in the laboratory. (In this example, I want to drive home that being loud in the classroom is completely unintentional for so many scenarios. You will not be in trouble for being loud so long as it is not disruptive to other students work. What makes this an academic integrity issue is if a student is repeatedly asked to be quiet so that other students can focus and the loud student refuses to comply.) Sabotage can also come in the form of willfully giving your lab partner the wrong reagent or mislabeling something so that the data is not recorded properly. (Accidentally giving the wrong reagent is understandable. This can be prevented by labeling your reagents clearly to avoid accidents like this. In this sabotage scenario, the student willfully gives the wrong reagent knowing exactly what they are doing.) Another example of sabotage would be deleting all your group's shared files for the diversity and inclusion project if you drop the course.

Consequences for Violating Academic Integrity Policies

In this course, I take academic integrity very seriously. Every potential violation of UNT's academic integrity policy will be dealt with in a swift and immediate manner. For every violation, the student will be notified by their UNT email of the potential violation. That student is then required to respond by email within seven calendar days of the email from your instructor to schedule a meeting to discuss the possible violation. At that meeting, the student will need to bring evidence and support to show that they did not violate UNT's academic integrity policies. Your instructor will present their evidence and consider both sides before deciding on any potential penalties. If penalties are to be sanctioned against the student, the instructor will file a report with the UNT Academic Integrity Officer. Once that report is filed, the student will be notified of any future actions that can be taken. If the student does not respond within seven calendar days from the notification of a possible academic integrity violation, the instructor will file a report with the UNT Academic Integrity Officer and sanction a minimum penalty of zero points for the assignment with no option to resubmit the work for a higher grade.

A student will be investigated for plagiarism if the similarity report from TurnItIn exceeds 25% similar to other sources. Students will be automatically accused of plagiarism if the similarity report from TurnItIn exceeds 50%. All other academic integrity violation claims will be assessed based on the evidence provided by the TA, instructor, and the student. Any final decisions about the penalties for an academic integrity violation will be discussed in the student meeting with the instructor. Potential penalties if a student meets with the instructor can range from a minimum of a verbal warning and admonition to a maximum penalty of a failing grade in the course based on the severity of the violation.

Students found using ChatGPT or other large language (AI) model to complete their assignments will receive zero points for the entire assignment.

Course Safety Statement (for Laboratory Courses)

Students in the laboratory are urged to use proper safety procedures and guidelines. While working in laboratory sessions, students are expected and required to identify and use proper safety guidelines in all activities requiring lifting, climbing, walking on slippery surfaces, using equipment and tools, handling chemical solutions and hot and cold products. Students should be aware that the University of North Texas is not liable for injuries incurred while students are participating in class activities. All students are encouraged to secure adequate insurance coverage in the event of accidental injury. Students who do not have insurance coverage should consider obtaining Student Health Insurance for this insurance program. Brochures for this insurance are available in the UNT Student Health and Wellness Center on campus. Students who are injured during class activities may seek medical attention at the Student Health and Wellness Center at rates that are reduced compared to other medical facilities. If you have an insurance plan other than Student Health Insurance at UNT, please be sure that your plan covers treatment at this facility. If you choose not to go to the UNT Student Health and Wellness Center, you may be transported to an emergency room at a local hospital. You are responsible for expenses incurred there.

ADA Accommodation

The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking reasonable accommodation must first register with the Office of Disability Access (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with a reasonable accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request reasonable accommodations at any time, however, ODA notices of reasonable accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of reasonable accommodation for every semester and must meet with each faculty member prior to implementation in each class. Students are strongly encouraged to deliver letters of reasonable accommodation during faculty office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student. For additional information, refer to the Office of Disability Access website at **http://www.unt.edu/oda** ⤴ **(http://www.unt.edu/oda)** . You may also contact ODA by phone at (940) 565-4323.

Emergency Notification and Procedures

If the university closes due to an emergency, I will post an Announcement on Canvas as soon as possible with instructions for you to complete the missed experiment(s). Each emergency is going to be different, so I will consider what is happening while posting these Announcements. Since the situation may change at a moment's notice, please refer to the most recent Announcement during these emergencies in case I do not have the ability to delete older Announcements in time. If I am unable to access Canvas, I promise to post an Announcement with instructions as soon as I am able.

Schedule

Week #	Monday of Week	Experiment Performed
1	12 January	No Experiment or Class Meetings
2	19 January	Lab Safety, Check-in, & Intro. to Data Analysis
3	26 January	Densities of Solids
4	2 February	Chemical & Physical Properties
5	9 February	Synthesis of Indigo
6	16 February	Empirical Formulas
7	23 February	Molecular Geometry
8	2 March	Mass of Calcium Carbonate in an Antacid
9	9 March	No Experiment or Class Meetings (Spring Break)
10	16 March	Solubility Rules
11	23 March	Unknown HCl Solution
12	30 March	Gas Laws
13	6 April	Molar Mass of a Volatile Liquid
14	13 April	Reactions of Copper
15	20 April	No Experiment or Class Meetings
16	27 April	No Experiment or Class Meetings
17	4 May	COMPREHENSIVE FINAL EXAM (on Labflow)

Course Summary:

Date	Details	Due
Fri Jan 16, 2026	🚀 **Chemistry Laboratory Safety Agreement** (https://unt.instructure.com/courses/137713/assignments/2872253)	due by 11:59pm
Thu Apr 30, 2026	📝 **SPOT Evaluation Submission** (https://unt.instructure.com/courses/137713/assignments/2872282)	due by 11:59pm

Date	Details	Due
Thu May 7, 2026	📝 [Final Exam](https://unt.instructure.com/courses/137713/assignments/2872266)	due by 11:59pm
	📝 [Data and Postlab Questions - Chemical and Physical Properties](https://unt.instructure.com/courses/137713/assignments/2872254)	
	📝 [Data and Postlab Questions - Data Analysis](https://unt.instructure.com/courses/137713/assignments/2872255)	
	📝 [Data and Postlab Questions - Densities of Solids](https://unt.instructure.com/courses/137713/assignments/2872256)	
	📝 [Data and Postlab Questions - Empirical Formulas](https://unt.instructure.com/courses/137713/assignments/2872257)	
	📝 [Data and Postlab Questions - Gas Laws](https://unt.instructure.com/courses/137713/assignments/2872258)	
	📝 [Data and Postlab Questions - Mass of Calcium Carbonate in Antacid](https://unt.instructure.com/courses/137713/assignments/2872259)	
	📝 [Data and Postlab Questions - Molecular Geometry](https://unt.instructure.com/courses/137713/assignments/2872260)	
	📝 [Data and Postlab Questions - Reactions of Copper](https://unt.instructure.com/courses/137713/assignments/2872261)	
	📝 [Data and Postlab Questions - Solubility Rules](https://unt.instructure.com/courses/137713/assignments/2872262)	
	📝 [Data and Postlab Questions - Synthesis of Indigo](https://unt.instructure.com/courses/137713/assignments/2872263)	

Date	Details	Due

📝 **Data and Postlab Questions - Unknown HCl Solution** (https://unt.instructure.com/courses/137713/assignments/2872264)

📝 **Data and Postlab Questions - Volatile Liquid** (https://unt.instructure.com/courses/137713/assignments/2872265)

📝 **Prelab Quiz - Chemical and Physical Properties** (https://unt.instructure.com/courses/137713/assignments/2872267)

📝 **Prelab Quiz - Data Analysis** (https://unt.instructure.com/courses/137713/assignments/2872268)

📝 **Prelab Quiz - Densities of Solids** (https://unt.instructure.com/courses/137713/assignments/2872269)

📝 **Prelab Quiz - Empirical Formulas** (https://unt.instructure.com/courses/137713/assignments/2872270)

📝 **Prelab Quiz - Gas Laws** (https://unt.instructure.com/courses/137713/assignments/2872271)

📝 **Prelab Quiz - Mass of Calcium Carbonate in Antacid** (https://unt.instructure.com/courses/137713/assignments/2872272)

📝 **Prelab Quiz - Molecular Geometry** (https://unt.instructure.com/courses/137713/assignments/2872273)

📝 **Prelab Quiz - Reactions of Copper** (https://unt.instructure.com/courses/137713/assignments/2872274)

📝 **Prelab Quiz - Solubility Rules** (https://unt.instructure.com/courses/137713/assignments/2872275)

📝 **Prelab Quiz - Synthesis of Indigo**

Date	Details	Due

(https://unt.instructure.com/courses/137713/assignments/2872276)

📝 **Prelab Quiz - Unknown HCl Solution**
(https://unt.instructure.com/courses/137713/assignments/2872277)

📝 **Prelab Quiz - Volatile Liquid**
(https://unt.instructure.com/courses/137713/assignments/2872278)

📝 **Quiz - Academic Integrity**
(https://unt.instructure.com/courses/137713/assignments/2872279)

📝 **Quiz - Appropriate Usage of LLM (AI) Tools**
(https://unt.instructure.com/courses/137713/assignments/2939776)

📝 **Quiz - Course Policies**
(https://unt.instructure.com/courses/137713/assignments/2872280)

📝 **Quiz - Labflow Orientation**
(https://unt.instructure.com/courses/137713/assignments/2872281)

📝 **Undergraduate General Lab Safety Training**
(https://unt.instructure.com/courses/137713/assignments/2945566)