

Organic Chemistry I Laboratory (3210.001)

Instructor Contact

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Pronouns: He, Him, His

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Phone Number: 940-565-4850

Office Hours: Tuesday's 9.00 am to 9.45 am

Zoom Meeting ID (office hour, recommended): <https://unt.zoom.us/j/82176082779>

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Section TA: Contact Information Available on Canvas

Note: Please take the time to read the entire syllabus document, course policies are described in this document clearly.

Laboratory Coordinator - Dr. Charles Browning (charles.browning@unt.edu) and Teaching Assistants (TBA). The TA is primarily responsible for conducting the laboratory, working with the students, and helping them with in-person and online labs. The TA is responsible for grading and should be the first point of contact for grading, and course contents. TA's contact information will be available on Canvas during the first week of the semester.

Communication Expectations: Any questions, first reach out to the TA, your TA is in charge of your laboratory section and will have all the information you require. The students can expect a response from the TA in less than 48 hours during the weekdays. The students are expected to reach out to TA's well in advance for reporting an absence for the labs or for arranging a late submission of reports. The TA's will try to respond at the earliest to the emergency notifications. Everyone is welcome to reach out to the instructor as needed. TA's contact information will be uploaded during first week of the labs on Canvas

Important Note: Please mention the course number (3210) and laboratory section number (3xx) in your subject line of the email. I am teaching 3 courses so having this information in the subject line of the email, to avoid multiple emails. Do not expect a quick response from the instructor if this information is missing.

If you are experiencing any symptoms of COVID-19 (<https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>) please seek medical attention from the Student Health and Wellness Center (940-565-2333 or askSHWC@unt.edu) or your health care provider before coming to campus. UNT also requires you to contact the UNT COVID Hotline at 844-366-5892 or COVID@unt.edu for guidance on actions to take due to symptoms, pending or positive test results, or potential exposure. While attendance is an important part of succeeding in this class, your health, and those of others in the community, are more important. During the quarantine period, the students can finish the labs online and submit the reports for full points. The message from the Dean of Students office will serve as an excuse note. So please reach out to UNT hotline and report your absence related to COVID exposure. Please report any suspected COVID exposure or symptoms to the COVID hotline immediately (844-366-5892 or email COVID@unt.edu).

“The North Texas region is currently experiencing high transmission of the highly contagious and dangerous Delta variant of COVID-19. The University of North Texas is very concerned about the risks of this new variant. UNT is requesting that all students, faculty and staff, whether vaccinated or not, comply with the public health recommendations of the U.S. Centers for Disease Control & Prevention in order to prevent Delta from spreading on campus. I encourage that all students wear a mask during class and in other indoor locations on campus until we receive guidance that the public health risks are decreasing. I understand that masks are uncomfortable, but they will help us achieve our goal of protecting vulnerable members of the community and their families, including unvaccinated children, during this latest resurgence of COVID-19.

Read more about CDC guidelines for vaccinated people here:

<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/fully-vaccinated-guidance.html>”

Welcome to UNT!

As members of the UNT community, we have all made a commitment to be part of an institution that respects and values the identities of the students and employees with whom we interact. UNT does not tolerate identity-based discrimination, harassment, and retaliation. UNT’s full Non-Discrimination Policy can be found in the UNT Policies section of the syllabus.

Course Description

Lab lecture (completely online) and 3-hours laboratory (in person and online)

This course is designed to introduce students to organic chemistry laboratory techniques. Organic reactions and selective organic synthesis techniques include – Melting Point, Recrystallization, Distillation, Solvent Extraction, and Separation of Mixtures. The organic reactions include dehydration (elimination) and bromination.

Prerequisite(s): “C” or better in CHEM 1420 and CHEM 1440.

Core Requisite(s): concurrently enrolled in CHEM 2370 or completed prior with a “C” or better

The course covers organic I laboratory experiments. The syllabus is designed to provide hands-on laboratory experience of selective organic synthesis techniques and reactions incongruent with the ongoing CHEM 2370 course. The main objective of the course is to cement the knowledge and practical understanding of theoretical techniques discussed and taught in various chapters of the ongoing CHEM 2370 course. The laboratory experiment sequence is designed to overlap with 2370 teaching content. The experiments are planned and implemented on a microscale considering lab duration and safety parameters.

Course Structure

The course is primarily fully face-to-face lab course that includes some remote activities. The course contains 11 weekly modules, 5 modules performed online and 6 modules performed in person in the lab. There will be no in-person or synchronous meetings with the instructor (**NO LAB LECTURES**). Full course material and information is available on Canvas. During office hours, the instructor will go over the experiment, prelab/postlab questions, and bonus questions. Office hour meetings are *not mandatory*. The syllabus includes 10 laboratory experiments, one makeup lab (interactive assignment or a quiz), and 2 quizzes. See the detailed breakdown in the below sections. Among 10 laboratory experiments, 6 experiments will be performed in the lab (in-person) and 4 experiments will be finished

using online demo videos. The make-up assignment is an online simulation module, students with accessibility issues can opt for a quiz with similar content. The online experiments are completed by watching the video demonstrations of the experiments and producing the required lab reports. The online experiment *might* include a discussion post as part of the grade, the TA will explain details during the first lab.

For safety and effective hands on training experience, each laboratory section is divided into two groups (Group A and Group B) and each group will meet alternate weeks and both groups will cover the same syllabus. **The TA will divide the lab section into two groups before the first weekly module.** If you cannot determine on Canvas, reach out to your TA to know your group. The lab reports are due the following week after finishing the experiment for both in-person and online labs. The students are required to work with the laboratory section TA in the laboratory, strictly follow instructions to ensure the safety of everyone in the lab. The students are required to understand the chemistry concepts of each experiment, get prepared for the experiment, prepare required prelabs (only for in-person labs), perform the experiment in the lab or finish the online experiment and finally generate a lab report following the guidelines outlined in the syllabus and by the TA. If you have any questions or unsure about anything, **DO NOT HESITATE TO ASK!!!** Very important that you are aware of everything listed in this syllabus document. We are looking forward to sharing our knowledge and experience to facilitate a unique and the best laboratory teaching experience for every student enrolled in the 3210 course. I know that you will bring experience and insight into lab activities, the student's feedback is highly recommended. We are truly looking forward to this course this semester!

The weekly-laboratory (weekly module) routine can be divided into three parts

In Person Labs:

Part 1: Prelab Preparation: Know your experiment for the week, read the course material, and understand the experiment. Very important! to understand the underlying chemistry concepts of the experiment. Prepare a prelab for the experiment (only for in-person labs), submit the prelab online, and bring a copy of the prelab to the laboratory to conduct the experiment. The prelab should contain the Objective, Reference Table, Experimental Procedure, and Prelab questions. A sample of prelab is available on Canvas. Please check the "LAB REPORT" help documents (Week # 1 Module) for additional information. Reach out to your TA if you have any questions during your first week.

Part 2: Perform the experiment in the laboratory using the procedure from the prelab (that you prepared for yourself in part 1), record observations, and data in the lab notebook. Follow safety protocols, disposal protocols as per TA instructions. **The prelab is mandatory for in-person labs.**

Part 3: Postlab: Finalize the lab report, edit the procedure if required (based on changes during the experiment in the lab). Finish data operations (calculations etc.) and conclusions. Answer the postlab questions and bring the full lab report and submit to the TA the following week or submit it online as requested by your TA.

Online Labs: Watch the demo experiment, record the procedure and observations for the lab report. Data and conclusions are not required for online lab reports. Answer the prelab and postlab questions, write the questions for full points. Finish the lab report, reach out to your TA for any questions regarding the video or the data. **Prelab is not required for Online Labs.** Please address the discussion questions

either in the lab report or on CNAVAS as directed by your TA. There is a variation in grading rubric for in-person and online labs. Check grading rubric for more details.

Important Note: The online lab must contain a discussion post (8 points) as part of the report. Each student is REQUIRED to post one question and answer at least two questions from the thread.

- Discussion posting and response should be finished during the online lab week, highly recommended that this activity is finished during same time of the lab.
- Discussion posting must strictly relate to the online experiment of that week (questions can be related to chemistry of that experiment, data, observations, conclusions, etc). Postings and response must strictly adhere to “Rules of Engagement”. Any out of limits postings will be deleted and student will be penalized accordingly.
- Question get 4 points - critical thinking questions get more weight, TA might ask the students to insert the question and answers in their lab report for grading convenience.
- The question should not relate (similar) to prelab or postlab or bonus questions on Canvas.
- Two students cannot ask the same question.

NOTE: The PRELAB is not required for experiments not performed in the lab (for online experiments or simulations). Submission of a full lab report is required for both in-person and online labs. For in-person labs, the data and observations component is recorded during the lab. The final lab report can be typed and submitted online. For online labs, please type and submit the full report online. Work with your TA during the first week of the labs to finalize the submission format. TA’s will use plagiarism or copy check software, DO NOT COPY, check the “Academic Integrity” policy carefully. A sample of prelab and full lab reports are available in the weekly 1 module on Canvas. During the first week of the laboratory, the safety and lab report items will be discussed extensively by your TA. *Please do not miss the meeting with your TA during the first week of the labs.*

NOTE: For online lab and in-person labs, the students are not responsible for answering the questions in the demo videos.

3210.001 platform is only for the instructor to reach out to the entire class. Unless notified, do not upload any report(s) or quiz on to 3210.002 platform. Each section (3210.3XX) will contain exactly same information as 3210.001, handouts, presentations, zoom recordings, and other information required for performing the experiments and for writing prelabs/ lab reports. Please check with your TA if you do not find any required information.

How to get through the first week of labs

Steps	Actions
1	Check your enrollment, confirm your lab section, lab time, and room number (for in-person labs).
2	Check syllabus document, and understand guidelines and rules, know your TA (name and contact info) – check 3210.3xx course on Canvas and watch for announcements from your TA and the instructor.

3	Know your group (group A or B), your week#1 module -start date and items to finish in week#1 module – check your lab section on Canvas and look for announcements from your TA.
4	Preparing for first in-person lab - goggles, dress code, facemask, prelab, and watch for announcements from your TA. <i>Finish the safety quiz and safety agreement at least 3 days before the first in-person lab.</i>
5	First in-person lab – Arrive at least 10 minutes early, be prepared (dress code, goggles, facemask, prelab). Finish in-person lab following safety guidelines and social distancing guidelines. Do not hesitate to ask your TA if you have any questions about the course.
6	Know course guidelines, deadlines, grading scheme, and required work from your end for finishing the course successfully.

Course Prerequisites or Other Restrictions

Please check the course requirements at

https://registrar.unt.edu/sites/default/files/feeds/registrar_course_reports/fall/chemistry_fall.pdf or reach out to chem-advising@unt.edu for additional information if required.

Must have had or be concurrently registered in chem 2370. Must also be enrolled in CHEM 3210.002. Must also be enrolled in any chem 3210.3XX lab section. This is an internet course. Course enrollment is restricted and non-texas resident students residing outside of the state are not eligible to enroll in this section. Contact the department for enrollment assistance in an appropriate section of the course if applicable. In Fall 2021 all laboratory sections are fully in-person. Students should not expect remote agreement unless the guidelines

Course Objectives

Upon successful completion of this course, students will be able to

1. Recognize the key aspects of online learning and evaluate the differences between in-person and online teaching for organic chemistry laboratory courses.
2. Identify different equipment, glassware commonly used in the organic chemistry laboratory, and handle them safely and effectively.
3. Demonstrate the ability to work safely in the organic laboratory environment - bench and hood spaces.
4. Review and follow safe laboratory practices in an organic lab setting. Includes safe handling and disposal of organic chemicals (solids, solvents, waste).
5. Apply selectively the theoretical concepts covered in CHEM 2370 or equivalent organic course in a laboratory setting.
6. Operate at least five organic laboratory techniques including melting point analysis, recrystallization, thin-layer chromatography, sublimation, distillation, and extraction in an organic lab setting.
7. Handle selective organic reactions in an organic lab setting following a written experimental procedure. In the laboratory, able to work individually or within a team to complete the experiment, collect the data, and analyze for a report.
8. Create a standard and legitimate scientific lab report using data generated in an organic lab setting.
9. Handle more comprehensive and bulkier CHEM 3220 labs in the future.

10. Predict and apply fundamental organic chemistry laboratory skills and techniques for advanced courses in chemistry and other branches of life sciences.
11. Adapt good laboratory practices to all compliance items (laboratory work and lab reports).

Materials

Recommended Reading: "Macroscale and Microscale Organic Experiments," 6th or 7th Edition by Kenneth L. Williamson and Katherine M. Masters. Refer to CHEM 2370 course material for additional information.

Any format (used, electronic, or pdf version) of the textbook is acceptable for the course.

All the information required to perform the experiments is available on Canvas. Information required for writing the prelabs, lab reports, and prelab/postlab questions is available in weekly modules. Any additional information can be obtained from open, online resources. The textbook is recommended as an additional source of information only, "NOT REQUIRED".

A Lab Notebook is required for In-person Labs. Students can use a simple ruled notebook for recording the observations and data during the in-person labs.

Lab Reports: All weekly modules, except for simulations, quizzes, and makeup assignment requires lab report submission for a full grade. Quizzes and makeup assignment do not require a lab report. Please refer to the Week#1 module on Canvas for sample lab reports. Week #1 is designed to interact with the TA to understand the policies, guidelines, and lab report writing information. Please talk to your section TA for – acceptable submission format, file type, etc.

Lab Recitation and Materials

The lab recitation for this lab is completely online. All lectures (PowerPoint presentations) are arranged in the form of weekly learning modules. Each module includes an experiment presentation, handout, video, and zoom lecture recording. The zoom lecture recording will contain bonus points and explanations to prelab and postlab questions. The video demonstrations will provide information for setting up the experiment, usage of the glassware, and other items in the laboratory. Some of the zoom video recordings will contain bonus points. The handouts will contain the experimental protocol, please use the handouts *only as a reference source*. The students are required to use the information from the experimental handout and prepare their own prelab/lab report. For online labs, the information from the video demonstration is used for preparing the lab report. The experiment procedure for the online labs needs to be written based on narration from the demo video. The demo videos will also contain observations and data for the online reports before the lab each week, please review the materials from the weekly module. The quizzes will be published on Canvas following the schedule in the syllabus.

Please follow the due dates for the submission of lab reports and quizzes. Do not expect any partial credit for late submission unless prearranged with the TA.

Important Note: The zoom lecture recordings and YouTube demos for online experiments are from previous semesters, so please kindly disregard the reference (date, experiment number, name of the TA) to previous semesters. Reach out to the instructor or the TA if you have any questions.

Teaching Philosophy

The course covers organic I laboratory experiments. The syllabus is designed to provide hands-on laboratory experience with selective organic synthesis techniques and reactions incongruent with the ongoing CHEM 2370 course. The main objective of the course is to cement the knowledge and practical understanding of theoretical techniques discussed and taught in various chapters of the CHEM 2370 course. The laboratory experiment sequence is designed to overlap with 2370 teaching content. Understanding the concepts of CHEM 2370 teachings is very important for getting the best from the 3210 labs.

Course Technology & Skills

Minimum Technology Requirements

Provide a list of the minimum technology requirements for students, such as:

- Computer
- Reliable internet access
- Speakers
- Microphone
- Plug-ins
- Microsoft Office Suite
- [Canvas Technical Requirements](https://clear.unt.edu/supported-technologies/canvas/requirements) (https://clear.unt.edu/supported-technologies/canvas/requirements)

Computer Skills & Digital Literacy

Provide a list of course-specific technical skills learners must have to succeed in the course, such as:

- Using Canvas
- Using email with attachments
- Downloading and installing software
- Using spreadsheet programs
- Using presentation and graphics programs

Technical Assistance

Part of working in the online environment involves dealing with the inconveniences and frustration that can arise when technology breaks down or does not perform as expected. Here at UNT we have a Student Help Desk that you can contact for help with Canvas or other technology issues.

UIT Help Desk: [UIT Student Help Desk site](http://www.unt.edu/helpdesk/index.htm) (http://www.unt.edu/helpdesk/index.htm)

Email: helpdesk@unt.edu

Phone: 940-565-2324

In Person: Sage Hall, Room 130

Walk-In Availability: 8am-9pm

Telephone Availability:

- Sunday: noon-midnight
- Monday-Thursday: 8am-midnight
- Friday: 8am-8pm

- Saturday: 9am-5pm

Laptop Checkout: 8am-7pm

For additional support, visit [Canvas Technical Help](https://community.canvaslms.com/docs/DOC-10554-4212710328) (https://community.canvaslms.com/docs/DOC-10554-4212710328)

Rules of Engagement

Rules of engagement refer to the way students are expected to interact with each other and with their instructors. Here are some general guidelines:

- While the freedom to express yourself is a fundamental human right, any communication that utilizes cruel and derogatory language on the basis of race, color, national origin, religion, sex, sexual orientation, gender identity, gender expression, age, disability, genetic information, veteran status, or any other characteristic protected under applicable federal or state law will not be tolerated.
- Treat your instructor and classmates with respect in any communication online or face-to-face, even when their opinion differs from your own.
- Ask for and use the correct name and pronouns for your instructor and classmates.
- Speak from personal experiences. Use “I” statements to share thoughts and feelings. Try not to speak on behalf of groups or other individual’s experiences.
- Use your critical thinking skills to challenge other people’s ideas, instead of attacking individuals.
- Avoid using all caps while communicating digitally. This may be interpreted as “YELLING!”
- Be cautious when using humor or sarcasm in emails or discussion posts as tone can be difficult to interpret digitally.
- Avoid using “text-talk” unless explicitly permitted by your instructor.
- Proofread and fact-check your sources.
- Keep in mind that online posts can be permanent, so think first before you type.
- Be cautious when using humor or sarcasm as the tone is sometimes lost in an email or discussion post and your message might be taken seriously or sound offensive.
- Be careful with personal information (both yours and others).
- Do not send confidential information via e-mail
- Any profanity in the lab reports will not be excused – will result in zero and removing from the course. Any student behavior that is disruptive, harassing towards the instructor or the TA or the laboratory manager will be reported to the DOS. Check Code of Student Conduct for acceptable student behavior.

See these [Engagement Guidelines](https://clear.unt.edu/online-communication-tips) (https://clear.unt.edu/online-communication-tips) for more information.

Course Requirements

Assignment	Points Possible	Percentage
2 Quizzes. Quiz # 1: Safety quiz mandatory. Quiz # 2 – based on experiments covered in the syllabus	40 points	16%

Assignment	Points Possible	Percentage
<i>10 Lab Reports (in person and online)</i>	<i>200 points</i>	<i>80%</i>
<i>1 Make-up Assignment (Interactive Module or equivalent Quiz depending on accessibility)</i>	<i>20 points</i>	<i>8%</i>
<i>TA Assessment</i>	<i>10 points</i>	<i>4%</i>
<i>Total Points Possible</i>	<i>250 points</i>	<i>100%</i>
<i>*Includes 20 bonus points.</i>		

*Bonus points are the instructor's discretion. Watch recorded zoom meetings for bonus questions.

Online lab reports must contain the discussions posting (question and answer). The online lab report must contain a discussion post (8 points) as part of the report. For more information talk to your TA during the first week of the labs or reach out to the instructor.

Grading

Include the grading scale (A-F) along with the point totals/percentages you will use to calculate the final grade. For example:

A = 90.0%-100%

B = 80.0%-89.9%

C = 70.0%-79.9%

D = 60.0%-69.9%

F = 50.0%-59.9%

Grading Rubric

For In-Person Labs

Section	Subsection	Points
Prelab	Purpose/Objective	1.0
	Reaction Schematics/Apparatus/Reagent Table	1.0
	Procedure	2.0
	Prelab questions	3.0
In Lab: Data/Observations/Calculations	Observations	2.0
	Data/Results/Readings	5.0
Postlab questions	From the lecture/presentation/handout	3.0
Conclusions	A detailed explanation of the results, not just mentioning successful/unsuccessful. Report yield as needed (from the video)	3.0
Total		20

For online experiment labs

Section	Subsection	Points
Prelab	Purpose/Objective	1.0
	Reaction Schematics/Apparatus/Reagent Table	1.0
	Procedure	2.0
	Prelab questions	3.0
Demo Video	Observations	2.0
Postlab questions	From the lecture/presentation/handout	3.0
Discussion Posting	1 Question (4 points) and 2 Answers (4 points)	8.0
Total		20

List of Modules with Description and Submission Dates for Student Groups* A and B

To accommodate the safety and better hands on laboratory experience to the students, each lab section will be divided into two groups by the TA at the beginning of the semester. The students are required to stick to their group for the rest of the semester. This arrangement will cover more than 50% of the experiments in person, selection of in-person experiments is designed to cover all techniques and practices expected to be covered in 100% in-person arrangement. The arrangement will help the TA's to focus and help each student one -to-one more effectively. The bi-weekly meeting will also provide students more time for lab reports and subside safety/health concerns. See the details below for Group A and B.

Please look at the [Fall 2021 Registration Guide | Office of the Registrar \(unt.edu\)](#) for UNT deadlines. Classes Begin: Aug 23; Labor day: Sep 6 (no classes, UNT closed); Thanksgiving : Nov 25-26 (no classes, UNT closed); Final exams: Dec 4-10; University grade submission: Dec 13; Grades/academic standings posted on official transcript: Dec 15.

Group A – Starts week of Aug 30

Weekly Modules	Module Description and Reference Materials	Module Week	Submission Week	Mode of Delivery
Week #1	Safety prep, Quiz #1, Experiment # 1 – Recrystallization (will also practice melting point)	August 30	Submit quiz# 1 at least 2 days before the first in-person lab. Recrystallization report due week of Sep 6	In Person/Lab
Week #2	Experiment 2 – Melting Point	September 6	September 13	Online
Week #3	Experiment 3 – TLC	September 13	September 20	In Person/Lab

Week #4	Experiment 4 – Sublimation	September 20	September 27	Online
Week #5	Experiment 5 – Caffeine Extraction	September 27	October 4	In Person/Lab
Week #6	Experiment 6 – Liquid-Liquid Extraction	October 4	October 11	Online
Week #7	Experiment 7 – Distillation	October 11	October 18	In Person/Lab
Week #8	Experiment 8 – Nucleophilic Substitution Reactions	October 18	October 25	Online
Week #9	Experiment 9 – Dehydration	October 25	November 1	In Person/Lab
Week #10	Quiz # 2 and *Makeup Assignment (simulation or quiz)	November 1	November 8	Online
Week #11	Experiment – 10 Bromination	November 8	November 15	In Person/Lab

*Quizzes are mandatory cannot be overridden by makeup assignment. Attendance for Experiment #10 is required unless fits within UNT excused absence policy.

Group B – Starts week of Week of Sep 6 (sections on Sep 6th will finish lab online)

Weekly Modules	Module Description and Reference Materials	Module Week	Submission Week	Mode of Delivery
Week #1	Safety prep, Quiz #1, Experiment # 1 - Recrystallization	September 6	Submit quiz# 1 at least 2 days before the first in-person lab. Experiment # 1 – Week of Sep 6	In Person/Lab
Week #2	Experiment 2 – Melting Point	September 13	September 20	Online
Week #3	Experiment 3 – TLC	September 20	September 27	In Person/Lab
Week #4	Experiment 4 – Sublimation	September 27	October 4	Online
Week #5	Experiment 5 – Caffeine Extraction	October 4	October 11	In Person/Lab
Week #6	Experiment 6 – Liquid-Liquid Extraction	October 11	October 18	Online
Week #7	Experiment 7 – Distillation	October 18	October 25	In Person/Lab
Week #8	Experiment 8 – Nucleophilic Substitution Reactions	October 25	November 1	Online

Week #9	Experiment 9 – Dehydration	November 1	November 8	In Person/Lab
Week #10	Quiz # 2 and *Makeup Assignment.	November 8	November 15	Online
Week #11	Experiment – 10 Bromination	November 15	November 22	In Person/Lab

*Quizzes are mandatory cannot be overridden by makeup assignment. Attendance for Experiment #10 is required unless fits within UNT excused absence policy.

Laboratory Experiment (in-person and online)	Short Description and Objectives
Safety and guidelines	Students are required to review the safety rules and sign the document. Send it over to the TA. Review the safety materials, finish the safety quiz, and send it over to the TA. Review the syllabus, “lab report help” documents, and get ready for the first in-person lab the following week. Able to acquire skills to write a lab report. Able to practice safety guidelines in the organic laboratory.
Recrystallization	Recrystallization of an organic compound (Benzoic acid or Benzoic acid mixture or a similar compound) will be performed in the lab. The module material will cover concepts for performing a simple recrystallization experiment in the laboratory. Able to describe different steps of the recrystallization technique in the final lab report. Able to acquire the skills required to perform a simple recrystallization technique for future labs. Able to compile data and observations for the lab report from the laboratory experiment. Able to compare the efficiency of recovery from two methods followed in the lab for the lab reports. This experiment is performed in the lab.
Melting Point (mp)	Melting Point. The module material will cover concepts for performing a melting point experiment. We will determine the melting point of an organic compound using the Mel-Temp apparatus. The effect of mixtures and impurity on the melting point of the organic compound will be analyzed. An unknown organic compound will be identified using melting point data. Able to characterize the melting point technique and its uses in organic chemistry. Able to acquire the skills required to perform the melting point of organic compounds for future labs. Able to describe different steps involved in performing melting point analysis in the final lab report. Able to compile data and observations for the lab report from the online experiment. Able to predict the effect of impurity and the effect of mixing on the melting point of organic compounds. This experiment is finished watching the online demo video.
Thin Layer Chromatography (TLC)	The module material will cover concepts for performing the TLC technique in the laboratory. The application of the TLC technique for isolation and purification will be discussed. The experiment will be performed using 4 typical analgesic compounds - Aspirin, Acetaminophen, Caffeine, and

	<p>Ibuprofen. The effect of polarity on the movement of compounds on the TLC plate will be analyzed. An unknown organic compound will be identified as part of the experiment. Able to characterize the Thin Layer Chromatography (TLC) technique and its uses in organic chemistry. Able to acquire skills required to perform TLC analysis of organic compounds for future labs. Able to describe different steps involved in performing TLC analysis in the final lab report. Able to compile data and observations for the lab report from an in-person experiment. Able to predict the effect of polarity of compounds and mobile phase on separation during TLC for different organic compounds. This experiment is performed in the lab.</p>
Sublimation	<p>The module material will cover concepts for performing sublimation technique in the laboratory. The experiment will be performed using a mixture of Benzoic acid or a similar organic compound. The application of the sublimation process as a purification technique will be analyzed. Will calculate the percent of recovery of the organic compound after sublimation. Able to characterize the Sublimation technique and its uses/applications in organic chemistry. Able to acquire skills required to perform sublimation of organic compounds for future labs. Able to describe different steps involved in performing the sublimation technique in the final lab report. Able to compile data and observations for the lab report from the on-line demo video (experiment). This experiment is finished watching the online demo video.</p>
Extraction and Sublimation (Caffeine Extraction)	<p>The module material will cover concepts for performing extraction and sublimation in the laboratory. The caffeine will be extracted from the tea solution, followed by purification by sublimation technique. The students will have the opportunity to perform both techniques during this experiment. Will calculate the percent of recovery of caffeine after sublimation. Able to characterize the extraction technique and its uses/applications in organic chemistry. Able to acquire the skills required to perform the extraction of organic compounds for future labs. Able to describe different steps involved for performing extraction technique in the final lab report. Able to compile data and observations for the lab report from experimental data in the lab. This experiment is performed in the lab.</p>
Liquid-Liquid Extraction	<p>The module material will cover concepts for performing extraction of organic compounds based on acid-base chemistry in the laboratory. The mixture of benzoic acid (BA) and Naphthalene (NA) will be separated using the extraction technique. The application of the extraction process for separation is analyzed. Will calculate the percent of recovery of individual organic compounds after extraction. Able to characterize the LLE technique and its uses/applications in organic chemistry. Able to acquire skills required to perform LLE of organic compounds for future labs. Able to describe different steps involved in performing the LLE technique in the final lab report. Able to compile data and observations for the lab report from an online demo video (experiment). This experiment is finished watching the online demo video.</p>
Distillation	<p>The module material will cover concepts for performing distillation (fractional distillation) of a mixture of organic solvents based on the difference in boiling point in the laboratory. The experiment will be performed using a mixture of toluene and cyclohexane or toluene and acetone depending on chemicals</p>

	<p>availability. The application of distillation as a purification technique will be analyzed. Will calculate the percent of recovery of organic solvent after distillation. Able to characterize the distillation technique and its uses/applications in organic chemistry. Able to acquire the skills required to perform distillation for future labs. Able to describe different steps involved in performing the distillation technique in the final lab report. Able to compile data and observations for the lab report from an in-person laboratory experiment. This experiment is performed in the lab.</p>
<p>Nucleophilic Substitution Reactions of Alkyl Halides.</p>	<p>This is the first of series of organic reactions in 3210 labs that will continue with 3220 labs. The weekly module material will cover concepts for performing SN reactions using 6 given alkyl halides. The alkyl halides will be tested with SN1 and SN2 reagents to estimate and analyze the rate of SN reactions with these different alkyl halides. In the demo video, you will notice that reactions will be performed in a test tube and the rate of reactions is estimated based on the formation of precipitate in the presence of the reagent. The reaction mechanism will be analyzed. Able to characterize the SN reaction mechanism and its application in organic chemistry. Able to acquire the skills required to perform this simple organic reaction. Able to describe different steps involved in performing the SN reaction in the final lab report. Able to compile data and observations for the lab report from an online laboratory experiment. This experiment is finished watching the online demo video.</p>
<p>Alkenes from Alcohols</p>	<p>This is dehydration, an elimination reaction (reaction of alkenes). The weekly module material will cover concepts for performing the acid-catalyzed dehydration of cyclohexanol in the lab. The reaction mechanism will be analyzed. Able to characterize the cyclohexanol dehydration reaction mechanism. Able to acquire the skills required to perform the cyclohexanol reaction in the laboratory. Able to describe different steps involved in performing cyclohexanol dehydration in the final lab report. Able to compile data and observations for the lab report from the laboratory experiment. Able to characterize product formation using specific reagents. Able to characterize the product yield. This experiment is performed in the lab.</p>
<p>Labster Assignment or a Similar Assignment (Interactive Module or a Quiz Assignment Depending on Accessibility)</p>	<p>This is a make-up lab. The makeup lab is performed for two reasons – one for replacing a previous lab grade or for making up an absent lab. The students are required to perform this assignment using the Labster interactive software program, if unable to access the Labster, can answer a quiz that contains similar content. The students will be provided the link and information to access the Labster to finish the assignment or the students will get a quiz copy. More details will be released within 1-2 weeks after the start of the semester. Tentative module: Nucleophilic Substitution Reactions: Alkyl halide substrates. The quiz will be based on SN reactions This experiment is finished online</p>
<p>Bromination of trans-Cinnamic Acid</p>	<p>This is a stereo-specific bromination of alkene reaction. The weekly module material will cover concepts for performing the simple bromination reaction in the laboratory. Able to characterize the simple alkene bromination reaction mechanism. Able to acquire the skills required to perform the bromination reaction in the laboratory. Able to describe different steps</p>

	involved in performing the alkene bromination reaction in the final lab report. Able to compile data and observations for the lab report from the laboratory experiment. Able to characterize the product yield. This experiment is performed in the lab.

Course Evaluation

Student Perceptions of Teaching (SPOT) is the student evaluation system for UNT and allows students the ability to confidentially provide constructive feedback to their instructor and department to improve the quality of student experiences in the course. Spot evaluations become available from Nov 15 to December 02. Students will receive 5 bonus points for SPOT evaluation of their TA. Students are required to submit proof of SPOT evaluation to their TA.

Course Policies

Face Coverings

UNT encourages everyone to wear a face covering when indoors, regardless of vaccination status, to protect yourself and others from COVID infection, as recommended by current CDC guidelines. Face covering guidelines could change based on community health conditions. Please follow these guidelines for in-person labs.

For guidelines related to quarantine and questions on returning to in-person learning at UNT, please check [Return to Learn | Office of the Provost \(unt.edu\)](#)

Attendance

Students are required to attend the in-person labs and to abide by the attendance policy established for the course. It is important that you communicate with the professor and the TA prior to being absent, so you, the professor, and the TA can discuss and mitigate the impact of the absence on your attainment of course learning goals. Please inform the professor and TA if you are unable to attend in-person labs because you are ill, in mindfulness of the health and safety of everyone in our community. Please provide required excuse note/documentation for absence. Visit the [University of North Texas' Attendance Policy](#) (<http://policy.unt.edu/policy/15-2->) to learn more.

If absent, the students are required to submit the reports along with the excused absence documentation for full points. Arrange with the TA for the late submission of the report. Students without excused absence documentation can receive partial credit only with the submission of the full report. The data and observations can be obtained from the video demo of the missed experiment. Students excused due to COVID 19 absence are required to submit the reports online. Please reach out to the TA to request extra time for late submissions.

If you are experiencing any [symptoms of COVID-19](https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html) (<https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>) please seek medical attention from the Student Health and Wellness Center (940-565-2333 or askSHWC@unt.edu) or your health care provider PRIOR to coming to campus. UNT also requires you to contact the UNT COVID Team at COVID@unt.edu for guidance on actions to take due to symptoms, pending or positive test results, or potential exposure.

Course Materials for Remote Instruction

Remote instruction may be necessary if community health conditions change or you need to self-isolate or quarantine due to COVID-19. Students will need access to a computer, and internet for finishing labs remotely. Information on how to be successful in a remote learning environment can be found at <https://online.unt.edu/learn>

Class Participation

Students are required to attend the in-person labs. Please reach out to DOS for excuses related to in-person labs.

Late Work

Late work will not be accepted unless arranged with the TA or the instructor

Attendance to in-person labs is *mandatory*. Visit the [University of North Texas' Attendance Policy](http://policy.unt.edu/policy/15-2-) (<http://policy.unt.edu/policy/15-2->) to learn more. **Excused Absences:** An absence may be excused for the following reasons: 1. religious holy day, including travel for that purpose; 2. active military service, including travel for that purpose; 3. participation in an official university function; 4. illness or other extenuating circumstances; 5. pregnancy and parenting under Title IX; and 6. when the University is officially closed. The students are required to submit the reports along with the excused absence documentation for full points. Arrange with the TA for the late submission of the report. Students without excused absence documentation can receive partial credit only with submission of the full report. The data and observations can be obtained from the video demo of the missed experiment. Students excused due to COVID 19 concerns are required to submit the reports online. Please reach out to your TA to request extra time for late submissions.

Late reports will not be accepted unless the student encounters an emergency or extreme situation. All work turned in after the deadline will receive a grade of zero unless the student has a [university-excused absence](#) and provides documentation with 72 hours of the missed deadline. Do not expect any partial credit for the late reports unless prearranged with the TA. **Swapping Lab Sections is strictly NOT allowed.**

Examination Policy

There are no exams in this course

Assignment Policy

The exact due dates for each experiment (module) depends on the lab section. Only PDF and MS word documents are acceptable formats for online and in-person submission, detailed instructions will be provided by the TA of the individual section during the first lab. The TA's will employ Turnitin or similar software for assignment submission. If there is a technical issue or server unavailability, submission dates will be extended as required by the TA. **Late assignments will not be accepted. Do not expect any partial credits for late returns unless there is an emergency or excused absence (as per UNT guidelines) or prearrangement with the TA. Cheating or copying other student reports will result in ZERO.**

The University is committed to providing a reliable online course system to all users. However, in the event of any unexpected server outage or any unusual technical difficulty which prevents students from completing a time sensitive assessment activity, the instructor will extend the time windows and provide an appropriate accommodation based on the situation. Students should immediately report any

problems to the instructor and contact the UNT Student Help Desk: helpdesk@unt.edu or 940.565.2324 and obtain a ticket number. The instructor and the UNT Student Help Desk will work with the student to resolve any issues at the earliest possible time.

Instructor Responsibilities and Feedback

The instructor is fully responsible designing the experiments and the entire syllabus for this course. Instructor is assisted by Organic Laboratory supervisor Dr. Charles Browning who will be responsible for smooth operation of organic labs. The designated TA for each section is fully in charge of the lab. The students will be provided all the help with every item related to experiments, safety, lab reports and quizzes as required/requested by the student. Instructor will provide all the information required to perform in-person and online labs, all information is uploaded on Canvas or uploaded during the semester as needed. TA's are responsible for grading the lab reports and quizzes, TA's and instructors will try to respond and address students questions/emails within 48 hours. TA's will provide feedback and grades for the reports within 1-2 weeks after every student has submitted the report.

Syllabus Change Policy

The syllabus copy provides all information for the course but its not a contract, any changes in the syllabus will be immediately updated to students by the instructor.

UNT Policies

Academic Integrity Policy

Academic Integrity Standards and Consequences. According to UNT Policy 06.003, Student Academic Integrity, academic dishonesty occurs when students engage in behaviors including, but not limited to cheating, fabrication, facilitating academic dishonesty, forgery, plagiarism, and sabotage. A finding of academic dishonesty may result in a range of academic penalties or sanctions ranging from admonition to expulsion from the University. [Insert specific sanction or academic penalty for specific academic integrity violation.]

ADA Policy

UNT makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide a student with an accommodation letter to be delivered to faculty to begin a private discussion regarding one's specific course needs. Students may request accommodations at any time, however, ODA notices of 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 accommodation for every semester and must meet with each faculty member prior to implementation in each class. For additional information see the [ODA website \(https://disability.unt.edu/\)](https://disability.unt.edu/).

Prohibition of Discrimination, Harassment, and Retaliation (Policy 16.004)

The University of North Texas (UNT) prohibits discrimination and harassment because of race, color, national origin, religion, sex, sexual orientation, gender identity, gender expression, age, disability, genetic information, veteran status, or any other characteristic protected under applicable federal or state law in its application and admission processes; educational programs and activities; employment

policies, procedures, and processes; and university facilities. The University takes active measures to prevent such conduct and investigates and takes remedial action when appropriate.

Emergency Notification & Procedures

UNT uses a system called Eagle Alert to quickly notify students with critical information in the event of an emergency (i.e., severe weather, campus closing, and health and public safety emergencies like chemical spills, fires, or violence). In the event of a university closure, please refer to Canvas for contingency plans for covering course materials.

Retention of Student Records

Student records pertaining to this course are maintained in a secure location by the instructor of record. All records such as exams, answer sheets (with keys), and written papers submitted during the duration of the course are kept for at least one calendar year after course completion. Course work completed via the Canvas online system, including grading information and comments, is also stored in a safe electronic environment for one year. Students have the right to view their individual record; however, information about student's records will not be divulged to other individuals without proper written consent. Students are encouraged to review the Public Information Policy and the Family Educational Rights and Privacy Act (FERPA) laws and the University's policy. See UNT Policy 10.10, Records Management and Retention for additional information.

Acceptable Student Behavior

Student behavior that interferes with an instructor's ability to conduct a class or other students' opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Dean of Students to consider whether the student's conduct violated the Code of Student Conduct. The University's expectations for student conduct apply to all instructional forums, including University and electronic classroom, labs, discussion groups, field trips, etc. Visit UNT's [Code of Student Conduct](https://deanofstudents.unt.edu/conduct) (https://deanofstudents.unt.edu/conduct) to learn more.

Access to Information - Eagle Connect

Students' access point for business and academic services at UNT is located at: my.unt.edu. All official communication from the University will be delivered to a student's Eagle Connect account. For more information, please visit the website that explains Eagle Connect and how to forward e-mail [Eagle Connect](https://it.unt.edu/eagleconnect) (https://it.unt.edu/eagleconnect).

Student Evaluation Administration Dates

Student feedback is important and an essential part of participation in this course. The student evaluation of instruction is a requirement for all organized classes at UNT. The survey will be made available during weeks 13, 14 and 15 [insert administration dates] of the long semesters to provide students with an opportunity to evaluate how this course is taught. Students will receive an email from "UNT SPOT Course Evaluations via IASystem Notification" (no-reply@iasystem.org) with the survey link. Students should look for the email in their UNT email inbox. Simply click on the link and complete the survey. Once students complete the survey they will receive a confirmation email that the survey has been submitted. For additional information, please visit the [SPOT website](http://spot.unt.edu/) (http://spot.unt.edu/) or email spot@unt.edu.

Survivor Advocacy

UNT is committed to providing a safe learning environment free of all forms of sexual misconduct. Federal laws and UNT policies prohibit discrimination on the basis of sex as well as sexual misconduct. If you or someone you know is experiencing sexual harassment, relationship violence, stalking and/or sexual assault, there are campus resources available to provide support and assistance. The Survivor Advocates can be reached at SurvivorAdvocate@unt.edu or by calling the Dean of Students Office at 940-5652648.

Important Notice for F-1 Students taking Distance Education Courses

Federal Regulation

To read detailed Immigration and Customs Enforcement regulations for F-1 students taking online courses, please go to the [Electronic Code of Federal Regulations website](http://www.ecfr.gov/) (<http://www.ecfr.gov/>). The specific portion concerning distance education courses is located at Title 8 CFR 214.2 Paragraph (f)(6)(i)(G).

The paragraph reads:

(G) For F-1 students enrolled in classes for credit or classroom hours, no more than the equivalent of one class or three credits per session, term, semester, trimester, or quarter may be counted toward the full course of study requirement if the class is taken on-line or through distance education and does not require the student's physical attendance for classes, examination or other purposes integral to completion of the class. An on-line or distance education course is a course that is offered principally through the use of television, audio, or computer transmission including open broadcast, closed circuit, cable, microwave, or satellite, audio conferencing, or computer conferencing. If the F-1 student's course of study is in a language study program, no on-line or distance education classes may be considered to count toward a student's full course of study requirement.

University of North Texas Compliance

To comply with immigration regulations, an F-1 visa holder within the United States may need to engage in an on-campus experiential component for this course. This component (which must be approved in advance by the instructor) can include activities such as taking an on-campus exam, participating in an on-campus lecture or lab activity, or other on-campus experience integral to the completion of this course.

If such an on-campus activity is required, it is the student's responsibility to do the following:

- (1) Submit a written request to the instructor for an on-campus experiential component within one week of the start of the course.
- (2) Ensure that the activity on campus takes place and the instructor documents it in writing with a notice sent to the International Student and Scholar Services Office. ISSS has a form available that you may use for this purpose.

Because the decision may have serious immigration consequences, if an F-1 student is unsure about his or her need to participate in an on-campus experiential component for this course, s/he should contact the UNT International Student and Scholar Services Office (telephone 940-565-2195 or email internationaladvising@unt.edu) to get clarification before the one-week deadline.

Student Verification

UNT takes measures to protect the integrity of educational credentials awarded to students enrolled in distance education courses by verifying student identity, protecting student privacy, and notifying students of any special meeting times/locations or additional charges associated with student identity verification in distance education courses.

See [UNT Policy 07-002 Student Identity Verification, Privacy, and Notification and Distance Education Courses](https://policy.unt.edu/policy/07-002) (<https://policy.unt.edu/policy/07-002>).

Use of Student Work

A student owns the copyright for all work (e.g. software, photographs, reports, presentations, and email postings) he or she creates within a class and the University is not entitled to use any student work without the student's permission unless all of the following criteria are met:

- The work is used only once.
- The work is not used in its entirety.
- Use of the work does not affect any potential profits from the work.
- The student is not identified.
- The work is identified as student work.

If the use of the work does not meet all of the above criteria, then the University office or department using the work must obtain the student's written permission.

Download the UNT System Permission, Waiver and Release Form

Transmission and Recording of Student Images in Electronically-Delivered Courses

1. No permission is needed from a student for his or her image or voice to be transmitted live via videoconference or streaming media, but all students should be informed when courses are to be conducted using either method of delivery.
2. In the event an instructor records student presentations, he or she must obtain permission from the student using a signed release in order to use the recording for future classes in accordance with the Use of Student-Created Work guidelines above.
3. Instructors who video-record their class lectures with the intention of re-using some or all of recordings for future class offerings must notify students on the course syllabus if students' images may appear on video. Instructors are also advised to provide accommodation for students who do not wish to appear in class recordings.

Example: This course employs lecture capture technology to record class sessions. Students may occasionally appear on video. The lecture recordings will be available to you for study purposes and may also be reused in future course offerings.

No notification is needed if only audio and slide capture is used or if the video only records the instructor's image. However, the instructor is encouraged to let students know the recordings will be available to them for study purposes.

Academic Support & Student Services

Student Support Services

Mental Health

UNT provides mental health resources to students to help ensure there are numerous outlets to turn to that wholeheartedly care for and are there for students in need, regardless of the nature of an issue or its severity. Listed below are several resources on campus that can support your academic success and mental well-being:

- [Student Health and Wellness Center](https://studentaffairs.unt.edu/student-health-and-wellness-center) (https://studentaffairs.unt.edu/student-health-and-wellness-center)
- [Counseling and Testing Services](https://studentaffairs.unt.edu/counseling-and-testing-services) (https://studentaffairs.unt.edu/counseling-and-testing-services)
- [UNT Care Team](https://studentaffairs.unt.edu/care) (https://studentaffairs.unt.edu/care)
- [UNT Psychiatric Services](https://studentaffairs.unt.edu/student-health-and-wellness-center/services/psychiatry) (https://studentaffairs.unt.edu/student-health-and-wellness-center/services/psychiatry)
- [Individual Counseling](https://studentaffairs.unt.edu/counseling-and-testing-services/services/individual-counseling) (https://studentaffairs.unt.edu/counseling-and-testing-services/services/individual-counseling)

Chosen Names

A chosen name is a name that a person goes by that may or may not match their legal name. If you have a chosen name that is different from your legal name and would like that to be used in class, please let the instructor know. Below is a list of resources for updating your chosen name at UNT.

- [UNT Records](#)
- [UNT ID Card](#)
- [UNT Email Address](#)
- [Legal Name](#)

**UNT eUIDs cannot be changed at this time. The collaborating offices are working on a process to make this option accessible to UNT community members.*

Pronouns

Pronouns (she/her, they/them, he/him, etc.) are a public way for people to address you, much like your name, and can be shared with a name when making an introduction, both virtually and in-person. Just as we ask and don't assume someone's name, we should also ask and not assume someone's pronouns.

You can [add your pronouns to your Canvas account](#) so that they follow your name when posting to discussion boards, submitting assignments, etc.

Below is a list of additional resources regarding pronouns and their usage:

- [What are pronouns and why are they important?](#)
- [How do I use pronouns?](#)
- [How do I share my pronouns?](#)
- [How do I ask for another person's pronouns?](#)
- [How do I correct myself or others when the wrong pronoun is used?](#)

Additional Student Support Services

- [Registrar](https://registrar.unt.edu/registration) (https://registrar.unt.edu/registration)
- [Financial Aid](https://financialaid.unt.edu/) (https://financialaid.unt.edu/)
- [Student Legal Services](https://studentaffairs.unt.edu/student-legal-services) (https://studentaffairs.unt.edu/student-legal-services)
- [Career Center](https://studentaffairs.unt.edu/career-center) (https://studentaffairs.unt.edu/career-center)
- [Multicultural Center](https://edo.unt.edu/multicultural-center) (https://edo.unt.edu/multicultural-center)
- [Counseling and Testing Services](https://studentaffairs.unt.edu/counseling-and-testing-services) (https://studentaffairs.unt.edu/counseling-and-testing-services)
- [Pride Alliance](https://edo.unt.edu/pridealliance) (https://edo.unt.edu/pridealliance)
- [UNT Food Pantry](https://deanofstudents.unt.edu/resources/food-pantry) (https://deanofstudents.unt.edu/resources/food-pantry)

Academic Support Services

- [Academic Resource Center](https://clear.unt.edu/canvas/student-resources) (https://clear.unt.edu/canvas/student-resources)
- [Academic Success Center](https://success.unt.edu/asc) (https://success.unt.edu/asc)
- [UNT Libraries](https://library.unt.edu/) (https://library.unt.edu/)
- [Writing Lab](http://writingcenter.unt.edu/) (http://writingcenter.unt.edu/)