

THE UNIVERSITY OF TEXAS AT TYLER

CHEM 1105 Fall 2024 SYLLABUS

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Meeting Times

Section	Time	Room	Instructor
001	M 1:00 - 4:00 PM	RBS 3022	Mr. Kevin Olmos *Dr. Laura Miller
002	M 5:00 - 8:00 PM	RBS 3022	Mr. Jerome Lewis
003	Tu 9:30 AM - 12:30 PM	RBS 3022	Mr. Kevin Olmos *Dr. Jiyong Lee
004	Tu 1:30-4:30 PM	RBS 3022	Mr. Keiston Howard *Dr. Tanya Shtoyko
005	W 9:30 AM - 12:30 PM	RBS 3022	Mr. Kevin Olmos *Dr. Rachel Mason
006	W 1:00-4:00 PM	RBS 3022	Mr. Keiston Howard *Dr. Laura Miller
008	Th 1:30-4:30 PM	RBS 3022	Mr. Jerome Lewis
009	F 1:00-4:00 PM	RBS 3022	Mr. Jerome Lewis
010	Th 9:30 AM - 12:30 PM	RBS 3022	Mr. Keiston Howard *Mrs. Lauren Johnson

* Instructor of Record

Instructor Contact Information

Instructor	Office	Office Hours	Email	Phone
Dr. Laura Miller Lab Coordinator	RBS 3032	M,F 9-10 am; T 10-11 am; W 9-11 am	lmiller@uttyler.edu	566-7137
Mr. Kevin Olmos	3rd Floor East Side Hall		kvilledaolmos@patriots.uttyler.edu	
Mr. Keiston Howard	3rd Floor East Side Hall	T, W 11 am—12 pm Th 1:30—2:30 pm	khoward16@patriots.uttyler.edu	
Mr. Jerome Lewis	RBS 3013	M, W 10 am—12 pm, F 10 –11 am	jeromelewis@uttyler.edu	566-7206
Dr. Rachel Mason	RBS 3002		rmason@uttyler.edu	565-5641
Dr. Jiyong Lee	RBS 3007		jlee@uttyler.edu	566-6275
Dr. Tanya Shtoyko	RBS 3003		tshtoyko@uttyler.edu	565-5502
Mrs. Lauren Johnson	RBS 3005		laurenjohnson@uttyler.edu	565-5508

Course Description



Chemistry is an experimental science. Chemical knowledge has resulted from experimental observations and studies made by thousands of scientists. In the chemistry laboratory, students will examine, test, and establish for themselves the chemical principles studied in class and from textbooks; will collect experimental data; and will use their reasoning to draw logical conclusions about the meaning of these data.

The prerequisite for this course is credit for or concurrent enrollment in Introductory Chemistry I (CHEM 1305).

Student Learning Outcomes

Communication Skills:

Students will demonstrate communication skills by presenting orally a research project on molecules found in everyday life using PowerPoint.



Teamwork Skills:

Students will demonstrate teamwork by working in small groups (3-4 students) to present orally a research project on molecules found in everyday life using PowerPoint.



Laboratory Safety

Safety goggles must be worn in the laboratory at all times. Students who do not have safety goggles will not be allowed in the laboratory. (Time during your initial lab period will be allotted for purchasing goggles from your American Chemical Society Student Chapter on campus to ensure that you will be prepared to comply with this requirement.)

It is strongly recommended that students wear laboratory coats or aprons in the lab at all times. **Students wearing open-toed shoes and/or inappropriate clothing will not be allowed in the laboratory.**

**CLOSED
TOED
SHOES
ARE
REQUIRED**



Note: we take safety infractions very seriously. Depending on the seriousness of such infractions, you may lose points on your lab work habits grade, be dismissed and receive a zero on any work missed, or even be dropped from the course. Students who perform unauthorized experiments or who remove chemicals or equipment from the lab may be dropped from the course or have their grades lowered.

Instructional

Lab Manual: Catalyst Introductory Chemistry I Laboratory Manual: Provided on Canvas

Each student must purchase and maintain a bound laboratory notebook in which to generate a *permanent* record of experimental observations, notes, calculations, etc. The lab notebook must provide:

1. a label for your name and phone number/email address, or other contact information, name of the department, course, semester and section numbers, and instructor's name;

2. a table of contents page for entering experiment titles *chronologically*;

3. pages consecutively *pre-numbered*;

4. *preprinted* page headings for entering title, date, name, and *specific* lab section (e.g., CHEM 1105-003); and

5. *perforated*, carbonless duplicate for each page.

Splash-proof safety goggles must be worn in the laboratory whenever you or your neighbors are performing experiments.

Warning: students will not be admitted into the lab without splash-proof goggles!

A few lab aprons are available by the department for student use, but students must also plan ahead to be clothed appropriately for laboratory work.

Warning: students will not be allowed to work in the lab without an effective apron and appropriate coverage from chest to toes! **(This means *no open-toed shoes or extensive areas of exposed skin on your torso or legs!*)**

Scientific Calculator- students may not share calculators or use cell phones as a calculator in the lab on experiments, tests or quizzes.

Failure to have the proper attire (goggles, shoes, etc.) will result in your being asked to leave the laboratory until you have the proper attire.

Strongly Recommended: General, Organic and Biological Chemistry: An integrated approach by Frost and Deal. 4th Edition (ISBN: 9780134988696).

Artificial Intelligence Guidelines



UT Tyler is committed to exploring and using artificial intelligence (AI) tools as appropriate for the discipline and task undertaken. We encourage discussing AI tools' ethical, societal, philosophical, and disciplinary implications. All uses of AI should be acknowledged as this aligns with our commitment to honor and integrity, as noted in UT Tyler's Honor Code. Faculty and students must not use protected information, data, or copyrighted materials when using any AI tool. Additionally, users should be aware that AI tools rely on predictive models to generate content that may appear correct but is sometimes shown to be incomplete, inaccurate, taken without attribution from other sources, and/or biased. Consequently, an AI tool should not be considered a substitute for traditional approaches to research. You are ultimately responsible for the quality and content of the information you submit. Misusing AI tools that violate the guidelines specified for this course is considered a breach of academic integrity. The student will be subject to disciplinary actions as outlined in UT Tyler's Academic Integrity Policy.

For this course, students can use AI platforms to help prepare for assignments and projects. They are not to be used during exams. These programs can be powerful tools for learning, including completing assignments in less time or serving as a personalized learning tool by creating extra practice worksheets. You can use AI tools to revise and edit your answers to the post lab questions and writing the group project (e.g., identify flaws in reasoning, spot confusing or underdeveloped paragraphs, or correct citations). However, your ethical responsibilities as a student remain the same. You must follow UT Tyler's Honor Code and uphold the highest standards of academic honesty. This applies to all uncited or improperly cited content, whether created by a human or in collaboration with an AI tool. If you use an AI tool to develop content for an assignment (such as an answer to a post lab question), you must cite the tool's contribution to your work. Sections of the final group project that is word-for-word generated by AI should appear in a different colored font. Remember that AI is not always 100% accurate and sometimes struggles with complex problem-solving tasks, such as interpreting data and mathematical problems.



Laboratory Requirements

Attendance is required in the laboratory. Unexcused absences will result in grades of zero for any work missed during those absences. Only students with OFFICIAL excused absences will be allowed to make-up work missed during the absences. It is the students' responsibility to see the instructor to make up any work missed during absences. Students will not be allowed to attend another lab section unless they have an official excused absence.

Arrive *on time* and be *prepared* for each laboratory. **Please note: you**

will complete a short (< 10 min.) pre-lab quiz on Canvas before each lab period. Failure to be prepared could result in serious mistakes in carrying out the lab procedures or not being able to finish the experiment in the time allotted. **(Warning:** insufficient time in the lab period is NOT a valid reason for submitting a late or incomplete report.)

Students are required to keep a laboratory notebook of the course. This notebook is to be a complete record of all experiments performed in the lab during this semester.

Laboratory notebooks periodically will be turned in for grading. Do not use the report sheets to document data in the lab.

Organize in a loose-leaf notebook all written information other than that contained in your lab manual or lab record book. These materials are helpful in preparing for lab exams and will also serve to document your grades, should the need arise to contest your lab average.

Bring all your own materials required for

lab—especially your goggles, your lab manual and your lab record book.

Maintain a clean and orderly working area. **CLEAN UP AFTER YOURSELF!** Students will be responsible for maintaining cleanliness in the desk areas. Students who neglect their clean-up responsibility will have their grades significantly lowered for that day's work. Therefore, it is important that students assigned to clean-up have their work approved by the lab instructor before leaving lab.

How to Succeed in this Course

Carefully review the experimental procedure prior to the experiment. The laboratory experiments are such that the average student can complete the work during the assigned time. This can be accomplished only if a reasonable amount of study and preparation has been done before coming to the laboratory. Plan what is to be done in each experiment before coming to the lab. It will save much time and will aid in avoiding serious mistakes. Make sure to watch the assigned videos found on the course Canvas page or the CHEM 1105 Toolkit Canvas page.



Maintaining a Proper Lab Notebook

The ultimate goal of keeping a running diary of your lab work in a lab notebook is to provide enough detail for someone (including yourself) to reproduce *exactly* what you did in lab, including variations from the published procedures, so as to share or confirm your findings. To fulfill this goal it is important to:

1. Make all entries in ink and identify mistaken entries by drawing a *single* line through them—if you decide to reverse yourself, correct the correction the same way! Note: space your entries on each page according to the number of *corrections* you anticipate you may need to
2. Keep a running Table of Contents—ensure that you start each new lab on a *fresh* page and that you make a *complete* entry in the Table of Contents *before* you start recording *anything* about the succeeding lab.
3. Record data *directly* into your notebook *as soon as it is done or observed!* During the lab period **never write**



anything pertinent to your experimentation on Summary Report sheets or anywhere else! Both you as well as your supervisor need to assume that your entries *comprehensively* include all you observations!

4. Always record numerical data with their appropriate units of measurement.
5. Before leaving the lab for the day, have the instructor initial and note the time at the end of your entries. This validates your actual performance of the lab and gives your instructor a chance to spot-check your work before you assume you are ready to leave for the day.

You must take the final examination to receive a passing grade in the course. Final exams cannot be taken early and there will be no Make-Up of the final exam!

Dropping the Course

The last day to withdraw from the course without penalty is **September 9, 2024**. The last day to withdraw from the course with an automatic grade of "W" is **November 4, 2024**.

Before dropping the course, you should consult with your

instructor to examine all of your options. Dropping this course does not obligate you to also drop the lecture course because they are two separate courses. However, dropping the lecture course may significantly hinder your progress in this course because you will be expected to learn the chemical theories and concepts on your own.

DON'T BOTHER ME WHILE
I'M DOING CHEMISTRY...

I'M IN MY
ELEMENT



To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link: [University Policies and Information](#)

Withdrawing from Class Students may [withdraw](#) (drop) from this course using the [Withdrawal Portal](#). Withdrawing (dropping) this course can impact your Financial Aid, Scholarships, Veteran Benefits, Exemptions, Waivers, International Student Status, housing, and degree progress. Please speak with your instructors, consider your options, speak with your advisor, and visit the One-Stop Service Center (STE 230) or email enroll@uttyler.edu to get a complete review of your student account and the possible impacts to withdrawing. We want you to make an informed decision. UT Tyler faculty and staff are here for you and often can provide additional support options or assistance. Make sure to carefully [read the implications for withdrawing from a course and the instructions](#) on using the [Withdrawal portal](#).

Texas law prohibits students from dropping more than six courses during their entire undergraduate career*. The six courses dropped include those from other 2-year or 4-year Texas public colleges and universities. Consider the impact withdrawing from this class has on your academic progress and other areas, such as financial implications. We encourage you to consult your advisor(s) and Enrollment Services for additional guidance. CAUTION #1: Withdrawing before census day does not mean you get a full refund. Please see the [Tuition and Fee Refund Schedule](#). CAUTION #2: All international students must check with the [Office of International Programs](#) before withdrawing. All international students are required to enroll full-time for fall and spring terms. CAUTION #3: All UT Tyler Athletes must check with the Athletic Academic Coordinator before withdrawing from a course. CAUTION #4: All veterans or military-affiliated students should consult with the [Military and Veterans Success Center](#).

* Students who began college for the first time before 2007 are exempt from this law.

Artificial Intelligence Statement UT Tyler is committed to exploring and using artificial intelligence (AI) tools as appropriate for the discipline and task undertaken. We encourage discussing AI tools' ethical, societal, philosophical, and disciplinary implications. All uses of AI should be acknowledged as this aligns with our commitment to honor and integrity, as noted in UT Tyler's Honor Code. Faculty and students must not use protected information, data, or copyrighted materials when using any AI tool. Additionally, users should be aware that AI tools rely on predictive models to generate content that may appear correct but is sometimes shown to be incomplete, inaccurate, taken without attribution from other sources, and/or biased. Consequently, an AI tool should not be considered a substitute for traditional approaches to research. You are ultimately responsible for the quality and content of the information you submit. Misusing AI tools that violate the guidelines specified for this course is considered a breach of academic integrity. The student will be subject to disciplinary actions as outlined in UT Tyler's Academic Integrity Policy. Refer to the About This Course section of the UT Tyler Syllabus Module for specific information on appropriate use of AI in your course(s).

Final Exam Policy Final examinations are administered as scheduled. If unusual circumstances require that special arrangements be made for an individual student or class, the Dean of the appropriate college, after consultation with the faculty member involved, may authorize an exception to the schedule. Faculty members must maintain student final examination papers for a minimum of three months following the examination date.

Incomplete Grade Policy If a student, because of extenuating circumstances, is unable to complete all of the requirements for a course by the end of the semester, then the instructor may recommend an Incomplete (I) for the course. The "I" may be assigned in place of a grade only when all of the following conditions are met: (a) the student has been making satisfactory progress in the course; (b) the student is unable to complete all coursework or final exam due to unusual circumstances that are beyond personal control and are acceptable to the instructor, and (c) the student presents these reasons before the time that the final grade roster is due. The semester credit hours for an Incomplete will not be used to calculate the grade point average.

The student and the instructor must submit an Incomplete Form detailing the work required and the time by which the work must be completed to their respective department chair or college dean for approval. The time limit established must not exceed one year. Should the student fail to meet all of the work for the course within the time limit, then the instructor may assign zeros to the unfinished work, compute the course average for the student, and assign the appropriate grade. If a grade has yet to be assigned within one year, then the Incomplete will be changed to an F, or NC. If the course was initially taken under the CR/NC grading basis, this may adversely affect the student's academic standing.

Grade Appeal Policy Disputes regarding grades must be initiated within sixty (60) days from the date of receiving the final course grade by filing a Grade Appeal Form with the instructor who assigned the grade. A grade appeal should be used when the student thinks the final course grade awarded does not reflect the grades earned on assessments or follow the grading scale as documented in the syllabus. The student should provide the rationale for the grade appeal and attach supporting document about the grades earned. The form should be sent via email to the faculty member who assigned the grade. The faculty member reviews the rationale and supporting documentation and completes the instruction section of the form. The instructor should return the form to the student, even if a grade change is made at this level. If the student is not satisfied with the decision, the student may appeal in writing to the Chairperson of the department from which the grade was issued. In situations where there is an allegation of capricious grading, discrimi-

nation, or unlawful actions, appeals may go beyond the Chairperson to the Dean or the Dean's designee of the college from which the grade was issued, with that decision being final. The Grade Appeal form is found in the [Registrar's Form Library](#). NOTE: The Grade Appeal Form is different from the Application for Appeal form submitted to the Student Appeals Committee, which does not rule on grade disputes as described in this policy.

Disability/Accessibility Services In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA), the University of Texas at Tyler offers accommodations to students with learning, physical, and/or psychological disabilities. If you have a disability, including a non-visible diagnosis such as a learning disorder, chronic illness, TBI, PTSD, ADHD, or a history of modifications or accommodations in a previous educational environment, you are encouraged to visit <https://hood.accessiblelearning.com/UTTyler/> and fill out the New Student application. The Student Accessibility and Resources (SAR) office will contact you when your application has been submitted and an appointment with the Assistant Director Student Accessibility and Resources/ADA Coordinator. For more information, including filling out an application for services, please visit the SAR webpage at <https://www.uttyler.edu/disability-services>, the SAR office located in the Robert Muntz Library, LIB 460, email saroffice@uttyler.edu, or call 903.566.7079."

Military Affiliated Students UT Tyler honors the service and sacrifices of our military-affiliated students. If you are a student who is a veteran, on active duty, in the reserves or National Guard, or a military spouse or dependent, please stay in contact with your faculty member if any aspect of your present or prior service or family situation makes it difficult for you to fulfill the requirements of a course or creates disruption in your academic progress. It is important to make your faculty member aware of any complications as far in advance as possible. Your faculty member is willing to work with you and, if needed, put you in contact with university staff who are trained to assist you. The [Military and Veterans Success Center \(MVSC\)](#) has campus resources for military-affiliated students. The MVSC can be reached at MVSC@uttyler.edu or via phone at 903.565.5972.

Students on an F-1 Visa To remain in compliance with Federal Regulations requirements you must do the following:

* Traditional face-to-face classes: Attend classes on the regular meeting days/times.

* Hybrid Classes: Attend all face-to-face classes convened by the instructor according to the schedule set for your specific course.

Online course: Only one online course can count toward your full-time enrollment. Students are expected to be fully engaged and meet all requirements for the online course.

Academic Honesty and Academic Misconduct The UT Tyler community comes together to pledge that "Honor and integrity will not allow me to lie, cheat, or steal, nor to accept the actions of those who do." Therefore, we enforce the [Student Conduct and Discipline policy](#) in the Student Manual Of Operating Procedures (Section 8).

FERPA UT Tyler follows the Family Educational Rights and Privacy Act (FERPA) as noted in [University Policy 5.2.3](#). The course instructor will follow all requirements to protect your confidential information.

Absence for Official University Events or Activities This course follows the practices related to [Excused Absences for University Events or Activities](#) as noted in the Catalog.

Absence for Religious Holidays This course follows the practices related to [Excused Absences for Religious Holy Days as noted in the Catalog](#).

Absence for Pregnant Students This course follows the requirements of Texas Laws SB 412, SB 459, SB 597/HB 1361 to meet the needs of pregnant and parenting students. Part of the supports afforded pregnant students includes excused absences. Faculty who are informed by a student of needing this support should make a referral to the Parenting Student Liaison. NOTE: Students must work with the Parenting Student Liaison in order to receive these supports. Students should reach out to the Parenting Student Liaison at parents@uttyler.edu and also complete the [Pregnant and Parenting Self-Reporting Form](#).

Campus Carry We respect the right and privacy of students who are duly licensed to carry concealed weapons in this class. License holders are expected to behave responsibly and keep a handgun secure and concealed. More information is available at <http://www.uttyler.edu/about/campus-carry/index.php>.

UT Tyler a Tobacco-Free University All forms of tobacco will not be permitted on the UT Tyler main campus, branch campuses, and any property owned by UT Tyler. This applies to all members of the University community, including students, faculty, staff, University affiliates, contractors, and visitors. Forms of tobacco not permitted include cigarettes, cigars, pipes, water pipes (hookah), bidis, kreteks, electronic cigarettes, smokeless tobacco, snuff, chewing tobacco, and all other tobacco products. There are several cessation programs available to students looking to quit smoking, including counseling, quitlines, and group support. For more information on cessation programs please visit

www.uttyler.edu/tobacco-free.

Course Grading*

The grading of the lab reports, quizzes, and exams are up to your instructor; however the weighting of these items will be uniform across all lab sections (see below). Your overall course grade will tentatively be based on the 90/80/70/60 percentage scale, but it may be adjusted based upon your instructor's judgment of the overall class performance. Attendance, class participation, and initiative will be considered for borderline grades.

Examinations: There will be 2 examinations. The first examination will cover the first 4 experiments and will have a practical component in which you are asked to do some simple laboratory tasks (such as measuring mass, reading a thermometer, etc.). The second exam will only cover the last 4 experiments, Please note: there is no practical component on the second exam. The amount of time allotted for each exam will be specified by your instructor.
* If the course must change due to Covid the exams may be canceled or moved online. If cancelled this percentage will be added to the laboratory reports percentage.

Presentations: This project is designed to build upon the information discovered during the lecture project. Students that are in lab are required to give a presentation in **PowerPoint** format in your lab period during project week. The actual presentation will count as 15% of your grade. Your groups will be the same as the lecture group. If you are not in lecture you will be added to a lecture group for this portion. Your lab grade will be based on the presentation, 3D-model, your group member's teamwork assessment, class assessment and **YOUR** explanation of the molecule.

The percentage grades for this course will be weighted as follows:

15% Pre-Lab Quizzes

15% Presentations

20% Examinations (2)

50% Laboratory Reports

100% Total

Pre-Lab Quizzes: given on Canvas and must be taken before the lab period begins to help prepare you for the lab experiment. You should read through the experiment's introduction and procedure.

Lab Reports: make up a large portion of your grade so please take care when preparing your report. Read through the lab manual for the general instructions on how to prepare your lab report. The Lab Report grade also reflects the instructor's subjective impression of your lab work habits, including but not limited to, punctuality, personal organization, spirit of community, etc. Examples: paying attention; taking notes during pre-lab lectures; organization; showing consideration for those around you; not writing observations directly on Summary Report Sheets; etc.

17% 10% Pre-Lab Write-up. *Before coming to lab* please write up Purpose, Procedure, and Safety in your laboratory notebook. This is a completion grade. If it is not completed before lab, 5% will be deducted. Your purpose, procedure, and safety are not graded at this time and are still subject to point deduction (see below):

2% Purpose Write one or two sentences describing the objective of the experiment.

2% Procedure A summarized procedure should be written. This procedure should have enough detail that another person would be able to follow it.

3% Safety A section that describes unique safety hazards for each chemical used in the experiment.

5% Style & Formatting. Includes organization, neatness, grammar, etc. Hand writing that is not legible is subject to point deduction.

3% Headings. A complete heading at the top of each page of the lab notebook is required.

75% Results and Discussion Section

Summary report sheets graded for accuracy and precision.

Data (Notebook) - Organized with all data collected during the lab, includes measurements and observations.

Calculations All calculations should be recorded in the notebook. In cases where the same type of calculation is repeated multiple times, a single representative calculation is sufficient.

Discussion Questions: Answer the discussion questions using complete sentences.

Lab reports must be turned in at the end of the lab period. Reports turned in late are subject to the loss of 5% for each 24 hour period late. Reports more than 2 weeks late will not be accepted. Reports not turned in will result in a grade of 0, so turning in a late report is better than not turning it in at all.

You will be working in teams of two or more, but **each person must turn in their own separate lab report and answers to the discussion questions.**

CHEM 1105 - Laboratory Schedule - Fall 2024

<u>Week of Classes</u>	<u>Laboratory Activities</u>
Aug 26 - 30	Introduction to the Chemistry Laboratory: Syllabus, Laboratory Schedule, Laboratory Notebooks, Laboratory Reports, Safety
Sep 2 - 6	No Lab (Labor Day)
Sep 9 - 13	Experiment Measurement in Chemistry
Sep 16 - 20	Experiment Determining the Density of Solids and Liquids
Sep 23 - 27	Experiment Properties of the Periodic Table
Sep 30 - Oct 4	Experiment Organic vs Inorganic
Oct 7 - 11	Laboratory Examination I
Oct 14 - 18	Experiment Organic Qualitative Analysis
Oct 21 - 25	Experiment Esterification Reactions
Oct 28 - Nov 1	Experiment Reactions of Soap
Nov 4 - 8	Experiment Chromatography of Amino Acids
November 4	<i>Last day to drop or withdraw from a course with an automatic grade of "W"</i>
Nov 11 - 15	Laboratory Examination II (Project work time after exam)
Nov 18 - 22	Project Presentation (Grading of each other will count as a quiz.)
Nov 25 - 29	No laboratories meet (Thanksgiving Break)
Dec 2 - 6	Make-Up Lab - (if applicable/necessary) Only students with an excused absence may perform the make-up experiment
Dec 9 - 13	FINAL EXAMINATIONS for lecture.

***Note: If required by unforeseen circumstances, the right to change the schedule is retained.**