

THE UNIVERSITY OF TEXAS AT TYLER

CHEM 1105 Spring 2024 SYLLABUS

Table of Contents

Class & Instructor Info	1
Course Description	2
Instructional Materials	2
Learning Outcomes	2
Safety Policy	3
Laboratory Requirements	3
Dropping the Course	3
How to Succeed in this Course	4
Maintaining a Proper Lab Notebook	4
University Policies	4-6
Course Grading	7
Quizzes, Exams, & Lab Reports	7
Laboratory Schedule	8

Meeting Times

Section	Time	Room	Instructor
001	M 1:00 - 4:00 PM	RBS 3022	Dr. Laura Boyd Miller
002	M 5:30 - 8:30 PM	RBS 3022	Mrs. Rahma Aly *Dr. Laura Boyd Miller
003	W 9:30 AM - 12:30 PM	RBS 3022	Dr. Laura Boyd Miller
004	Th 1:30 - 4:30 PM	RBS 3018	Mrs. Samantha Butler *Dr. Laura Boyd Miller

* Instructor of Record

Instructor Contact Information

Instructor	Office	Office Hours	Email	Phone
Dr. Laura Boyd Miller	RBS 3032	MF 9:00-10:00 am; T 10:00-11:00 am; W 1:30-3:30 pm	lboyd@uttyler.edu	566-7137
Mrs. Rahma Aly	Zoom	M, W 9:30-11 am	Raly@patriots.uttyler.edu	
Mrs. Samantha Butler		By appointment only	samanthabutler@uttyler.edu	



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.



COVID-19, Safety and Personal Protection:

The UT Tyler community of Patriots views adoption of these practices consistent with its [Honor Code](#) and a sign of good citizenship and respectful care of fellow classmates, faculty, and staff.

It is important to take the necessary precautions to ensure a healthy and successful year. UT Tyler continues to urge you to protect yourselves against the flu, COVID and any new threats that may be developing. Be diligent about preventive measures such as washing hands, covering sneezes/coughs, social distancing and vaccinations, which have proven to be successful in slowing the spread of viruses. Encourage those who don't feel well to stay home, and if they show symptoms, ask them to get tested for the flu or COVID. Self-isolation is important to reduce exposure ([CDC quarantine/isolation guidelines](#)). Please work with your faculty members to maintain coursework and please consult [existing campus resources](#) for support.

Instructional Materials

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 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).

Laboratory Safety

**CLOSED
TOED
SHOES
ARE
REQUIRED**

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 shorts will not be allowed in the laboratory.**

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.



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.

Dropping the Course

The last day to withdraw from the course without penalty is **January 29, 2024**. The last day to withdraw from the course with an automatic grade of "W" is **March 25, 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



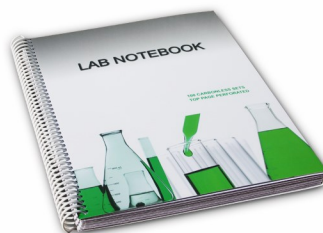
How to Succeed in this Course

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.

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 make for that section (for example, equations or calculations)!
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 your 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!

UT Tyler Honor Code

Every member of the UT Tyler community joins together to embrace: Honor and integrity that will not allow me to lie, cheat, or steal, nor to accept the actions of those who do.

Concealed Handguns on Campus

We respect the right and privacy of students 21 and over 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.

Emergency Exits and Evacuation

Everyone is required to exit the building when a fire alarm goes off. Follow your instructor's directions regarding the appropriate exit. If you require assistance during an evacuation, inform your instructor in the first week of class. Do not re-enter the building unless given permission by University Police, Fire department, or Fire Prevention Services.

University Policies and Procedures

Students Rights and Responsibilities

To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link: <http://www.uttyler.edu/wellness/rightsresponsibilities.php>

Grade Replacement/Forgiveness and Census Date Policies

Students repeating a course for grade forgiveness (grade replacement) must file a Grade Replacement Contract with the Enrollment Services Center (ADM 230) on or before the Census Date of the semester in which the course will be repeated. Grade Replacement Contracts are available in the Enrollment Services Center or at <http://www.uttyler.edu/registrar>. Each semester's Census Date can be found on the Contract itself, on the Academic Calendar, or in the information pamphlets published each semester by the Office of the Registrar. Failure to file a Grade Replacement Contract will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates are eligible to exercise grade replacement for only three course repeats during their career at UT Tyler; graduates are eligible for two grade replacements. Full policy details are printed on each Grade Replacement Contract.

The Census Date is the deadline for many forms and enrollment actions of which students need to be aware. These include:

- Submitting Grade Replacement Contracts, Transient Forms, requests to withhold directory information, approvals for taking courses as Audit, Pass/Fail or Credit/No Credit.
- Receiving 100% refunds for partial withdrawals. (There is no refund for these after the Census Date)
- Schedule adjustments (section changes, adding a new class, dropping without a "W" grade)
- Being reinstated or re-enrolled in classes after being dropped for non-payment
- Completing the process for tuition exemptions or waivers through Financial Aid

State-Mandated Course Drop Policy

Texas law prohibits a student who began college for the first time in Fall 2007 or thereafter from dropping more than six courses during their entire undergraduate career. This includes courses dropped at another 2-year or 4-year Texas public college or university. For purposes of this rule, a dropped course is any course that is dropped after the census date (See Academic Calendar for the specific date). Exceptions to the 6-drop rule may be found in the catalog. Petitions for exemptions must be submitted to the Enrollment Services Center and must be accompanied by documentation of the extenuating circumstance. Please contact the Enrollment Services Center if you have any questions.

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 you have 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 Cynthia Lowery, Assistant Director of Student Services/ADA Coordinator. For more information, including filling out an application for services, please visit the SAR webpage at <http://www.uttyler.edu/disabilityservices>, the SAR office located in the University Center, # 3150 or call 903.566.7079.

Student Absence due to Religious Observance

Students who anticipate being absent from class due to a religious observance are requested to inform the instructor of such absences by the second class meeting of the semester.

Student Absence for University-Sponsored Events and Activities

If you intend to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the instructor at least two weeks prior to the date of the planned absence. At that time the instructor will set a date and time when make-up assignments will be completed.

Social Security and FERPA Statement:

It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number. The electronic transmission of grades (e.g., via e-mail) risks violation of the Family Educational Rights and Privacy Act; grades will not be transmitted electronically.

Emergency Exits and Evacuation:

Everyone is required to exit the building when a fire alarm goes off. Follow your instructor's directions regarding the appropriate exit. If you require assistance during an evacuation, inform your instructor in the first week of class. Do not re-enter the building unless given permission by University Police, Fire department, or Fire Prevention Services.

Student Standards of Academic Conduct

Disciplinary proceedings may be initiated against any student who engages in scholastic dishonesty, including, but not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts.

i. "Cheating" includes, but is not limited to:

- copying from another student's test paper;
- using, during a test, materials not authorized by the person giving the test;
- failure to comply with instructions given by the person administering the test;
- possession during a test of materials which are not authorized by the person giving the test, such as class notes or specifically designed "crib notes". The presence of textbooks constitutes a violation if they have been specifically prohibited by the person administering the test;
- using, buying, stealing, transporting, or soliciting in whole or part the contents of an unadministered test, test key, homework solution, or computer program;
- collaborating with or seeking aid from another student during a test or other assignment without authority;
- discussing the contents of an examination with another student who will take the examination;
- divulging the contents of an examination, for the purpose of preserving questions for use by another, when the instructor has designated that the examination is not to be removed from the examination room or not to be returned or to be kept by the student;
- substituting for another person, or permitting another person to substitute for oneself to take a course, a test, or any course-related assignment;
- paying or offering money or other valuable thing to, or coercing another person to obtain an unadministered test, test key, homework solution, or computer program or information about an unadministered test, test key, home solution or computer program;
- falsifying research data, laboratory reports, and/or other academic work offered for credit;
- taking, keeping, misplacing, or damaging the property of The University of Texas at Tyler, or of another, if the student knows or reasonably should know that an unfair academic advantage would be gained by such conduct; and
- misrepresenting facts, including providing false grades or resumes, for the purpose of obtaining an academic or financial benefit or injuring another student academically or financially.

ii. "Plagiarism" includes, but is not limited to, the appropriation, buying, receiving as a gift, or obtaining by any means another's work and the submission of it as one's own academic work offered for credit.

iii. "Collusion" includes, but is not limited to, the unauthorized collaboration with another person in preparing academic assignments offered for credit or collaboration with another person to commit a violation of any section of the rules on scholastic dishonesty.

iv. All written work that is submitted will be subject to review by plagiarism software.

UT Tyler Resources for Students

UT Tyler Writing Center (903.565.5995), writingcenter@uttyler.edu

UT Tyler Tutoring Center (903.565.5964), tutoring@uttyler.edu

The Mathematics Learning Center, RBN 4021, this is the open access computer lab for math students, with tutors on duty to assist students who are enrolled in early-career courses.

UT Tyler Counseling Center (903.566.7254)

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%	<u>Laboratory Reports</u>
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 - Spring 2024

<u>Week of Classes</u>	<u>Laboratory Activities</u>
Jan 15 - 19	No lab (MLK Holiday)
Jan 22 - 26	Introduction to the Chemistry Laboratory: Syllabus, Laboratory Schedule, Laboratory Notebooks, Laboratory Reports, Safety
Jan 29 - Feb 2	Experiment Measurement in Chemistry
Feb 5 - 9	Experiment Determining the Density of Solids and Liquids
Feb 12 - 16	Experiment Properties of the Periodic Table
Feb 19 - 23	Experiment Organic vs Inorganic
Feb 26 - Mar 1	Laboratory Examination I
March 4 - 8	Experiment Organic Qualitative Analysis
March 11-15	Spring Break (No labs)
March 18 - 22	Experiment Esterification Reactions
March 25 - 29	Experiment Reactions of Soap
March 25	<i>Last day to drop or withdraw from a course with an automatic grade of "W"</i>
April 1 - 5	Experiment Chromatography of Amino Acids
April 8 - 12	Laboratory Examination II (Project work time after exam)
April 15 - 19	Project Presentation (Grading of each other will count as a quiz.)
April 22 - 26	Make-Up Lab - (if applicable/necessary) Only students with an excused absence may perform the make-up experiment
April 29 - May 3	FINAL EXAMINATIONS for lecture.

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