

CHEM 1305.001 Introductory Chemistry Syllabus

The University of
Texas at Tyler

Spring 2025

MWF 8:00 - 8:55 AM
RBS 2024

Instructor Contact:	Office	Office Hours	Email	Phone
Dr. Laura Miller	RBS 3032	M, W, F 9:00-10:00 am; T 9:30 – 11:30 am	lmiller@uttyler.edu	566- 7137

Supplemental Instruction (SI) Leader: Kayla McCoy kmccoy14@patriots.uttyler.edu

Course Description

The study of chemistry can make a worthwhile contribution to the education of any student. Chemistry is a legitimate part of a cultural education, since it leads to better understanding of a diverse range of issues, ranging from environmental to health care to geopolitics of resource use. One must know something of science to read modern newspapers and magazines with full understanding. The extent to which

chemistry influences our lives has become so great that technical topics are items of daily conversation. Chemistry is constantly providing us with a supply of new things for better living, for longer and healthier lives, and for increased leisure in which to enjoy life. Chemistry is playing an important role in the exploration of the universe. It thus becomes evident that knowledge of chemistry is an important



possession of any intelligent, well-informed member of our society.

The approach of this introductory chemistry course makes it suitable for non-science and non-engineering majors. The development of the subject presupposes a basic background in algebra at the high school level but does not presuppose previous training in chemistry.

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Course Requirements

Class will meet in RBS 2024 each Monday, Wednesday, and Friday, January 13 – April 30 except Monday, January 20th (MLK day) and Monday - Friday March 17-21 (Spring Break) from 8:00 –8:55 AM.

Students should have all necessary materials (notes, calculator, periodic table) at each class meeting. If you miss a lecture you can find pre-made lecture videos in our Canvas course toolkit. Introductory Chemistry I Laboratory (CHEM 1105) is

NOT included in this course. It is not required, but it is recommended to be taken concurrently with the lecture course.

If the course has to go online for any reason, you will need computer access with internet and web-camera (phone).

Online Websites This course will have a significant online presence at <http://www.uttyler.edu/canvas/index.php> and www.achieve.macmillanlearning.com. Chapter PowerPoint notes will be available on Canvas as well as chapter quizzes and announcements. Chapter homework can be found on the Achieve Macmillan Learning website.

Student Learning Outcomes

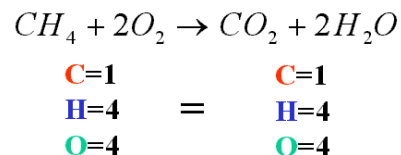
Throughout the semester you will be required to demonstrate a working knowledge of general, organic and biological chemistry at the introductory level using Critical Thinking Skills (CT), and Empirical and Quantitative Skills (EQS).



By the end of the course successful students should be able to:

1. Apply the scientific method to analyze items or problems and use original thinking and chemical knowledge to synthesize solutions (CT)

2. Manipulate and analyze data embedded in word problems found on homework, quizzes, and tests (EQS)

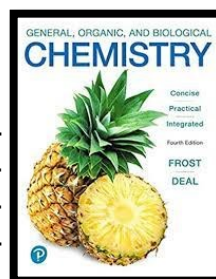


Instructional Materials

Required Texts: **You MUST have *Achieve Macmillan learning* access to complete the online homework assignments.**

You **MUST** have access to a computer with internet.

Materials/Notes available on Canvas. A scientific calculator (capable of logarithms and exponents) is also required.



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

Attendance Policy: Experience has shown that course grades are directly proportional to lecture attendance. Therefore, attendance is expected. Class participation is a significant measure of performance. Not attending lecture may not only cause you to become behind in the understanding of the course material but it may also negatively affect your grade. If you are unable to attend a class meeting, all discussed material and all given assignments are your responsibility. There will be previously recorded lectures on the Canvas course toolkit. Punctuality is mandatory. Please do not interrupt class time by entering late or leaving early.



Attendance will be taken daily through a sign in sheet. There will also be short online quiz after each class. **This will count as 17% of your overall grade.** There will be at least 36 quizzes. The quiz will be due by midnight each M, W, and F. I will drop the 6 lowest quiz scores at the end of the semester. The material to be covered on these quizzes will be based on the lecture material of that class day or the previous lecture day. **You may use your class notes and/or book during these quizzes. These will be submitted online through Canvas (use the Office Lens app to scan answers if needed).**

Dropping the Course: The last day to withdraw from the course without penalty is **January 27, 2025**. The last day to withdraw from the course with an automatic grade of "W" is **March 31, 2025**. 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 lab course because they are two separate courses. However, dropping the lab course may significantly hinder your progress in this course because you will not be getting the hands-on learning from the lab.



How to Succeed: **Students must study outside of class to be successful in this course.** Outside work includes reworking the in-class problems, doing the assigned homework, reviewing lecture notes, submitting daily quizzes, etc. Typically this requires 2 or more hours for each hour of lecture. Please take advantage of the posted office hours, tutors, and supplemental instruction (SI) to seek assistance during the semester. When you can write out the material from memory and solve problems without looking anything up, which takes lots of repetition and practice, you are ready for the tests.

Course Grading

Grades will tentatively be based on a 90/80/70/60 scale, but may be adjusted based upon my evaluation of the overall class performance. Attendance, class participation, and initiative will be considered for borderline grades.

Homework: Homework will regularly be assigned for you to complete outside of the lecture class time. It is very important that you complete such homework assignments in a timely manner. **All online homework problems accessed through the Achieve website, count as 10% of your total course grade.** To access the online homework complete the following steps:

Navigate to the Achieve Access Module on Canvas and click on Achieve Registration Instructions to connect your Canvas and Achieve accounts.

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Once you have registered and enrolled, you can click the homework link in the Chapter modules. This will take you to the Achieve website. Your grades will sync to Canvas throughout the day. During sign up - and throughout the term - if you have any technical problems or grading issues, use the links in the Achieve Access Module.

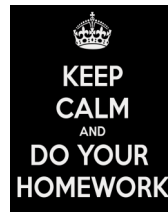
Daily Quizzes: Each class day there will be a quiz over material taught that day or the previous day. The quiz will be due by midnight each M, W, and F. I will drop the 6 lowest quiz scores at the end of the semester. **You may use your class notes and/or book during these quizzes.**

Chapter Quizzes: There will be one quiz (found on Canvas) per chapter covered. Each quiz will have approximately 15 questions. There will be one extra credit quiz, which covers all 10 chapters, at the end of the semester that can replace your lowest quiz grade.

Final Exam: 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!

If you have *five or fewer absences*, I will *replace* your lowest *exam* score with your final exam score *if* your final exam score is higher. (If the final exam score is the lowest score, then no grade will be replaced.) For example, suppose you make the following grades 60, 80, 85, 85 and a 75 on the final. Your final grade will be calculated based on the scores 75, 80, 85, 85 (and 75 on the final) where the 60 was replaced with the 75. Only one low score will be replaced.

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



17% Daily Quizzes

10% Homework

10% Chapter Quizzes

48% Examinations (4)

15% Final

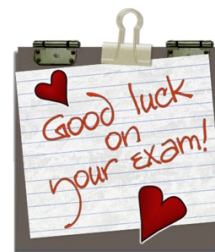
100% Total

Examinations:

There will be four chapter tests given. All tests are comprehensive, but the material covered since the previous test will be strongly emphasized on a test. Tests will cover material covered from the lectures, discussed during the class periods, assigned homework, quizzes, and other assigned material. Any exceptions will be announced in class. Students are allowed only to keep pencils, eraser, calculator and identification at their desks during a test. A 3 x 5 inch note card (All use not allowed, must be handwritten, no photocopies or printed materials) is permitted for each exam.

Exam Rules: During an exam, all phones and any "smart" watch must be inside a closed bag.

Cell phones, smart watches, and any similar electronic devices must be turned off and put away during exams. If they are observed out in a visually accessible place (*i.e.* between legs, on the floor, *etc.*), it will be assumed that they are being used to cheat; your exam will be taken away, you will receive a zero score (0 points) for the test, and you will be referred to the Office of Judicial Affairs.



University Policies and Information

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.

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 sub-



stitute 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 work (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 daily quiz), you must cite the tool's contribution to your work.** Remember that AI is not always 100% accurate and sometimes struggles with complex problem-solving tasks, such as interpreting data and mathematical problems.



Tentative Topics/Tentative Test Dates

Chapter 1 - Chemistry Basics

Chapter 2 - Atoms and
Radioactivity

Chapter 3 - Compounds

Chapter 4 - Introduction to Organic Compounds

Chapter 5 - Chemical Reactions

Chapter 6 - Carbohydrates

Chapter 7 - What's the Attraction? State Changes, Solubility, and Lipids

Chapter 8 -

Solution Chemistry

Chapter 9 - Acids, Bases, and Buffers in the Body

Chapter 10 - Proteins

These dates and chapters covered are tentative and are subject to change.



Test 1 (Chapters 1-3)

Wednesday, February 12th

Test 2 (Chapters 4-6)

Friday, March 7th

Test 3 (Chapters 7-8)

Wednesday, April 2nd

Test 4 (Chapters 9-10)

Wednesday, April 23rd

Final Exam, 8-10 am

Wednesday, April 30th

Make-Up Exams

Make-up tests will only be given in the event of an **excusable** absence. Excusable absences includes participation in university sponsored athletic events (note from coach required), or other extreme circumstances as determined by the instructor. In the case of an unexpected circumstance, **the instructor must be notified prior to the absence or the test will not be excused, no exceptions. Notification may be done in person, by telephone (leave a voice message if necessary), or by email.** It is the student's responsibility to arrange with the instructor for taking a make-up test. **NO make-up test will be given after the test papers have been returned to the class.**

Below is a tentative schedule as a general guideline. Some material may be moved to the next day or covered the a day earlier.

Week	Date	Day	Plan	Plan
1	Jan-13	Monday	Intro to Class - Syllabus	Intro
	15	Wednesday	Begin Ch. 1	1.1, 1.2
	17	Friday	Continue Ch. 1	1.2, 1.3
2	20	Monday	No class - MLK	No Class
	22	Wednesday	Continue Ch. 1	1.3, 1.4
	24	Friday	End Ch. 1/Begin Ch. 2	1.5, 1.6, 2.1
3	27	Monday	Continue Ch. 2	2.2, 2.3, 2.4
	29	Wednesday	End Ch. 2	2.4, 2.5, 2.6
	31	Friday	Begin Ch. 3	2.7, 3.1, 3.2
4	Feb-3	Monday	Continue Ch. 3	3.2, 3.3, 3.4
	5	Wednesday	Continue Ch. 3	3.4, 3.5, 3.6
	7	Friday	End Ch. 3	3.6, 3.7
5	10	Monday	Review for Test 1	Ch. 1-3
	12	Wednesday	Test 1	Ch. 1-3
	14	Friday	Begin Ch. 4	4.1, 4.2, 4.3
6	17	Monday	Continue Ch. 4	4.3, 4.4
	19	Wednesday	End Ch. 4	4.4, 4.5
	21	Friday	Begin Ch. 5	4.5, 5.1
7	24	Monday	End Ch. 5	5.2, 5.3, 5.4, 5.5
	26	Wednesday	Begin Ch. 6	5.6, 6.1, 6.2, 6.3
	28	Friday	Continue Ch. 6	6.3, 6.4
8	3-Mar	Monday	End Ch. 6	6.5, 6.6, 6.7
	5	Wednesday	Review for Test 2	Ch. 4-6
	7	Friday	Test 2	Ch. 4-6
9	10	Monday	Begin Ch. 7	7.1
	12	Wednesday	Continue Ch. 7	7.2
	14	Friday	End Ch. 7	7.3, 7.4, 7.5
11	24	Monday	Begin Ch. 8	8.1, 8.2
	26	Wednesday	Continue Ch. 8	8.3, 8.4
	28	Friday	End Ch. 8	8.5, 8.6, 8.7
12	31	Monday	Review Test	Ch 7-8
	2-Apr	Wednesday	Test 3	Ch. 7-8
	4	Friday	Begin Ch. 9	9.1, 9.2, 9.3
13	7	Monday	Continue Ch. 9	9.3, 9.4, 9.5, 9.6
	9	Wednesday	End Ch. 9	9.6, 9.7, 9.8
	11	Friday	Begin Ch. 10	10.1, 10.2
14	14	Monday	Continue Ch. 10	10.2, 10.3, 10.4
	16	Wednesday	Continue Ch. 10	10.5, 10.6
	18	Friday	End Ch. 10	10.6, 10.7
15	21	Monday	Review for Test 4	Ch. 9-10
	23	Wednesday	Test 4	Ch. 9-10
	25	Friday	Review Final	All Chapters
16	28	Monday	Study Day	No class
	30	Wednesday	Final Exam 8-10:00	All Chapters