

# CHEM 4395-001

## Undergraduate Research

The University of Texas at Tyler  
Department of Chemistry & Biochemistry

Fall 2025

## Course Content

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This course is comprised of directed chemical or biochemical research involving a problem of mutual interest to the student and a member of the chemistry & biochemistry faculty. A written report of research results by the student is required at the conclusion of the project.

## Instructor Information

Instructor: Tanya Shtoyko

Office: RBS 3003

Email: [tshtoyko@uttyler.edu](mailto:tshtoyko@uttyler.edu)

Phone: 903.565.5502

Office Hours:

M-F 1:00-2:00 pm

Or by appointment

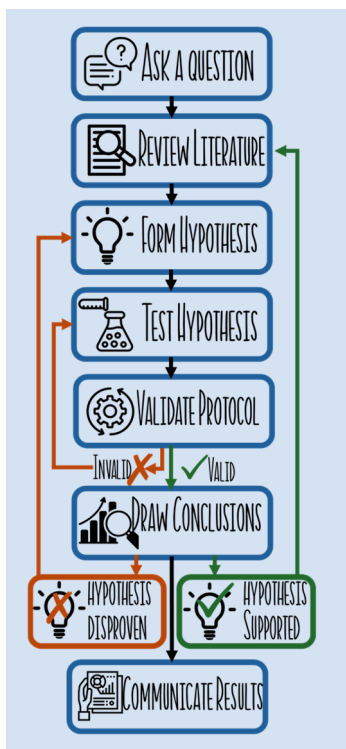
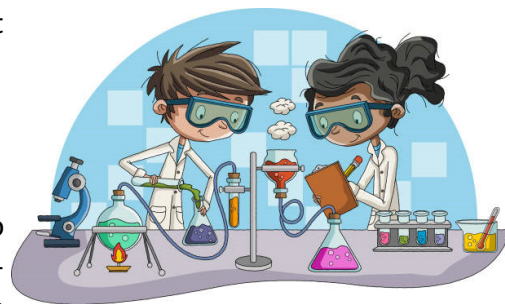
The Department of Chemistry & Biochemistry practices an open door policy—any time the door is open you are welcome to stop in and get assistance as time allows. If you needs exceed the available time, we'll make an appointment.

## Course Meeting Times & Location

This course does not have a regularly scheduled meeting time or location. However, students are expected to spend adequate time in research activities. As a general guide, students should expect to dedicate 3 hours per week in research related activities for every one 1 credit hour enrolled.

- 4195— ~3 hours /week
- 4295— ~6 hours / week
- 4395— ~9 hours /week

Research related activities will vary by lab and may include functions such as experimental work, data analysis, literature searches, background reading, group meetings or other activities prescribed by the advising faculty. Specific weekly schedule should be developed and agreed upon with the supervising faculty.



## Student Learning Objectives

The course should enable students to:

- Demonstrate proficiency with basic laboratory skills and techniques.
- Demonstrate knowledge of fundamental concepts in the area of research.
- Search the scientific literature for background information pertaining to a research project.
- Participate in discussions regarding their own research and other students' research.
- Create a formal presentation to a general audience on experimental and/or literature results obtained for the research project which includes introduction placing the research question in context of relevant scientific literature, description of experimental methods and procedures, experimental results including tables and graphs as appropriate and discussion of the significance of those results.



## Pre-Requisites & Required Materials

### Pre-Requisites:

This course requires consent of the Department Chair and permission from the supervising Department Faculty.

### Required Textbook:

This course requires does not have a required textbook. Students should consult with their advising faculty for directed reading material.

### Required Supplies:

Students working in a wet laboratory setting will be required to have impact resistant splash-proof goggles (ANSI Z87).

## Course Deliverables

By the last regular class day of the term, students should create a formal summary of their work. This should include the following sections:

- introduction placing the research findings in context of relevant scientific literature
- description of experimental methods and procedures
- experimental or literature results including tables and graphs as appropriate
- discussion of the significance of those results

The format of the project summary should be determined in consultation with the supervising faculty. Written reports, posters, or slides suitable for an oral presentation are recommended. Students are encouraged to take advantage of opportunities such as UT Tyler's Lyceum, the Texas Academy of Science Meeting and ACS meetings to present their works to a larger audience. The work summary should be submitted via Canvas before the end of the term.



## Administrative Dates

The term runs from 25 August 2025 to 13 December 2025.

Students should be aware of the following important administrative dates:

September 1<sup>st</sup> (Mon) – Labor Day – Classes will not meet.

September 8<sup>th</sup> (Mon) – Census date, last day to file for grade replacement or make a schedule change.

October 1<sup>st</sup> (Wed) – Last day to file for Fall 2025 graduation

Graduation checks must be completed prior to this date.

November 3<sup>rd</sup> (Mon) – Last day to withdraw from courses with a W.

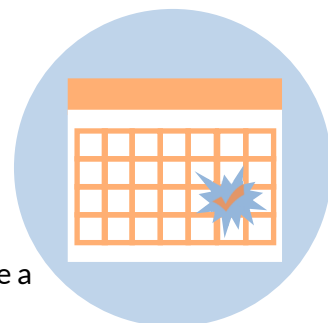
(Note: Failure to officially drop the course will result in a grade of “F”.

Students considering dropping should consult with the instructor prior to dropping.)

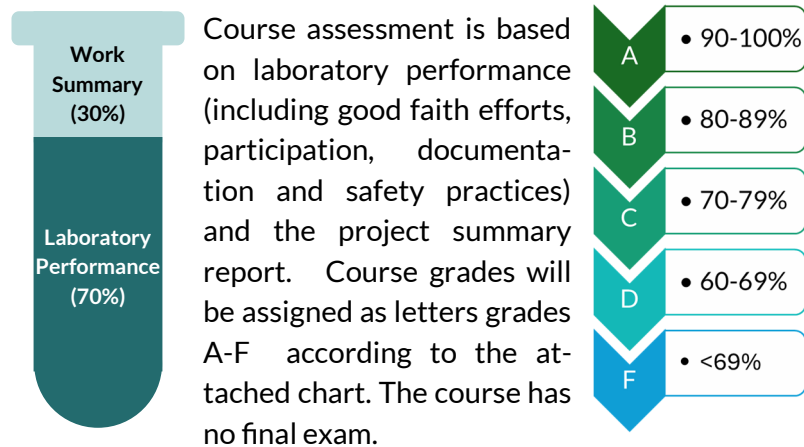
November 3<sup>rd</sup> (Mon) – Registration for Spring 2026 enrollment opens

November 24<sup>th</sup>-28<sup>th</sup> (Mon-Fri) – Thanksgiving Break – Classes will not meet.

December 8<sup>th</sup>-12<sup>th</sup> (Mon-Fri) – Final Exams (This course does not have a final exam.)



## Grading Policy and Criteria



## Safety Reminder

Safety is everyone's responsibility. Students are expected to abide the University safety policies and the guidelines of their specific laboratory. In wet labs, this includes, but is not limited to wearing lab appropriate clothing including closed toes shoes and using appropriate personal protective equipment including laboratory goggles and gloves.

Students will not be able to work in any lab until they have completed the required safety training. See your supervising faculty to the specific course(s) to be completed via Canvas or CITI training website. **Students not operating safely in the lab will be removed and may be dropped from the course.**

## Attendance and Make Up Policy

Participation is essential. As many research activities are not restricted to lab settings, excellent communication with supervising faculty is essential. Students are expected to be present at scheduled times. When absences are necessary they should be clearly communicated as far ahead as possible to allow for alternate arrangements to be made with the understanding that making up missed work days is not always possible depending on the nature of the research activity.

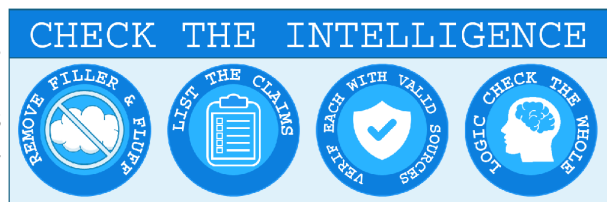
# AI Use Statement



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 (see below) is considered a breach of academic integrity. The student will be subject to disciplinary actions as outlined in UT Tyler's Academic Integrity Policy. **AI use is allowed during the course and appropriate acknowledgement is required.**

AI programs can be powerful tools for learning, research and other productive pursuits, including helping recognize patterns, analyze data, generate new ideas, or serving as a personalized learning tool. However, the student's ethical responsibilities remain the same. Because AI-generated content is not necessarily accurate or appropriate, students must assess the validity and applicability of any AI output. If an AI tool is used to develop content for an assignment, the tool's contribution to the work must be cited according to the ACS Style Guide. If an AI tool is used to revise and/or edit written work, students must identify any writing, text, or media generated by AI. Sections of the project summary generated by AI should appear in a different colored font, and the relationship between those sections and student contributions should be discussed in a cover letter that accompanies the assignment when submitted.



## Student Resources

### Academic Success Tools

- [UT Tyler Writing Center](#)
- [The Mathematics Learning Center](#)
- [UT Tyler PASS Tutoring Center](#)
- [UT Tyler Supplemental Instruction](#)
- [Robert Muntz Library](#)
- [Library Liaison](#) and [LIB 422](#)
- [Canvas 101](#)

### Special Student Populations

- [Military and Veterans Success Center](#)
- [Office of International Programs](#)

### Research Support

- [Office of Research & Scholarship Design and Data Analysis](#)

### Accessibility Resources

- [UT Tyler Student Accessibility and Resource \(SAR\) Office](#)

### Career & Employment

- [Career Success Center](#)

### Campus Engagement

- [Patriots Engage](#)
- [Interactive Campus Maps](#)

### Student Wellness

- [Student Assistance and Advocacy Center](#)
- [Counseling Center](#)
- [24/7 Crisis Line at 903.566.7254](#)

### University Business

- [UT Tyler Student Business Services](#)
- [UT Tyler Financial Aid and Scholarships](#)

# University Policies Highlights

## 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>

## 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](mailto: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 includes 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.

## 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 08/2024 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, discrimination, 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](#).



## 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](mailto: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](mailto: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](mailto: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>.

