

Syllabus - Principles of Forensic Science

Course Number: CHEM 4360.001,.301,.302

Term: Spring 2026

Instructor Information

Name: Dr. Charlie Williams (*she/her/hers*)

Email: Charlie.williams@unt.edu

Office Location: CHEM 263

Office Hours: T/R 10:00-11:00, W/F 9:30-10:30, or by appointment

Course Description, Structure, and Objectives

This course will introduce forensic topics in a continuation of CHEM 3330. It is designed to reinforce knowledge of forensic techniques and skills critical to evidence preservation and collection. It will also provide students with an understanding of professional ethics in forensic science and courtroom techniques.

Course Prerequisites or Other Restrictions

Prerequisite: CHEM 3330 (C or better)

Course Objectives

By the end of this course, successful students will be able to:

1. Discuss the basic duties of pathologists, anthropologists, and entomologists and make broad assessments of evidence analyzed in these fields.
2. Discuss analytical methods and legal aspects of seized drugs, forensic toxicology, paint analysis, and questioned documents.
3. Apply principles learned in CHEM 3330 and 4360 by processing a mock crime scene and analyzing evidence.
4. Discuss the professional and ethical issues faced by forensic scientists.
5. Demonstrate professional competencies necessary for internship and career success.
6. Explain scientific principles used in forensic analyses related to a real case.

Required Materials

- 1 bound lab notebook (not spiral-bound) and blue or black ink pen
- Lab safety glasses or goggles
- Scientific calculator (graphing calculators are also acceptable)
- This course has digital components. To fully participate in this class, students will need internet access to reference content (including videos) on the Canvas Learning Management System and Microsoft Word, Powerpoint, and some Excel (free with your UNT log-in). If circumstances change, you will be informed of other technical needs to access course content. Information on how to be successful in a digital learning environment can be found at [Learn Anywhere \(https://online.unt.edu/learn\)](https://online.unt.edu/learn).
- All required and recommended reading materials will be provided on Canvas.

Meeting Times and Locations

Lecture

Location: ENV 190

Schedule: MWF 8:00 – 8:50

Lab

Location: CHEM 283

Section 1: W 1:30 – 4:20 pm

Section 2: F 12:00 – 2:50 pm

Schedule

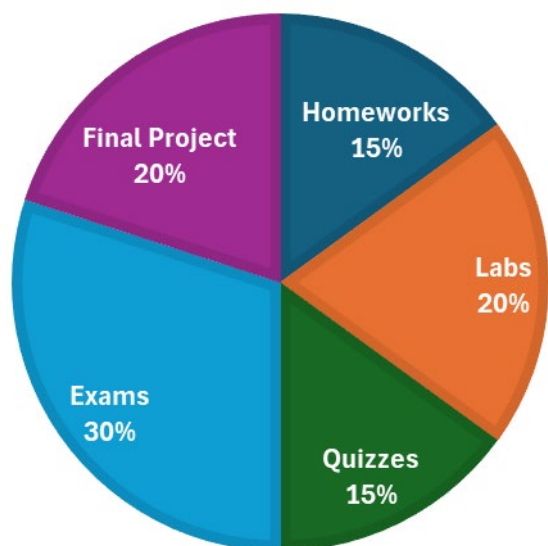
WEEK	DATES	TOPIC	ASSIGNMENTS
1	1/12 1/14 1/16	Introduction to course Pathology Pathology Activity & Discussion	Pathologist vs Coroner HW (25 pts) Pathology activity/HW (25 pts)
2	1/19 1/21 1/23	NO CLASS: MLK Day Pathology Quiz ; Anthropology – introduction and biological profiles Anthropology – estimation and identification methods	Quiz 1 (20 pts)
3	1/26 1/28 1/28-1/30	Anthropology Quiz and discussion Entomology Entomology LAB	Anthropology presentation (25 pts) Quiz 2 (20 pts) Lab Handout (50 pts)
4	2/2 2/4 2/6	Entomology Quiz and discussion Exam 1 Review Exam 1	Quiz 3 (20 pts) Exam 1 (100 pts)
5	2/9 2/11 2/13	Separation Methods Separation Methods Discussion and Diagram Activity Separation Methods Quiz ; intro to drugs: classification, schedules	Quiz 4 (20 pts) FINAL PROJECT TOPIC SELECTION OPENS
6	2/16 2/18 2/20	Drugs – analysis; Discussion Drugs Quiz ; Forensic Toxicology – intro, metabolism Forensic Toxicology – sampling, analysis	Drug infographic (25 pts) Quiz 5 (20 pts)
7	2/23 2/25 2/27	Forensic Toxicology – BAC & breathalyzer activity Forensic Toxicology Quiz and discussion Exam 2 Review	Quiz 6 (20 pts) Toxicology HW (25 pts)
8	3/2 3/4 3/6	Exam 2 Paint Analysis Paint Analysis Quiz and discussion	Exam 2 (100 pts) Paint infographic (25 pts) Quiz 7 (20 pts)
9	3/9-3/13	SPRING BREAK	
10	3/16 3/18 3/18-3/20	Questioned Documents Questioned Documents Quiz and Discussion Questioned Documents LAB	Questioned Documents report (50 pts) Quiz 8 (20 pts)
11	3/23 3/25 3/25-3/27	Legal Aspects of Forensic Science Legal Aspects Quiz and discussion Mock Crime Scene – Part 1 (lab)	Quiz 9 (20 pts) PRESENTATION PEER REVIEW
12	3/30 4/1 4/3	Bias, Ethics and Professional Responsibility Bias & Ethics Quiz ; Exam 3 Review Mock Crime Scene – Part 2 (lab)	Quiz 10 (20 pts) Bias/Ethics HW (25 pts)
13	4/6 4/8 4/10	Exam 3 Presentations; section 301 LAB MEETING for mock scene wrap-up Presentations; section 302 LAB MEETING for mock scene wrap-up	Exam 3 (100 pts) Presentation (100 pts)
14	4/13 4/15 4/17	Presentations Presentations Presentations	Mock Crime Scene Assessment (100 pts) FINAL PAPER PEER REVIEW 1
15	4/20 4/22 4/24	Presentations Presentations Presentations	FINAL PAPER PEER REVIEW 2
16	4/27 4/29 5/1	Presentations Presentations Reading day – no class	
17	5/4	Presentations (8:00 am – 9:00 am)	Final paper (100 pts)

This calendar is subject to change at any time. You will be notified via Canvas announcement as soon as possible if the calendar changes for any reason not related to a campus closure.

You will be notified by Eagle Alert if there is a campus closing that will impact a class. This calendar is subject to change accordingly, citing the [Campus Closures Policy \(https://policy.unt.edu/policy/15-006\)](https://policy.unt.edu/policy/15-006).

Grading Your Work

Category Weights



Letter Grades

A (90.0% and above) – Fully meets or exceeds learning objectives with clear, accurate, and insightful work.

B (80.0% - 89.9%) – Meets learning objectives with mostly accurate and well-developed work.

C (70.0% - 79.9%) – Adequately meets learning objectives with understanding and execution that could be more thoroughly developed.

D (60.0% - 69.9%) – Partially meets learning objectives with limited understanding or incomplete work.

F (59.9% and below) – Does not meet learning objectives; work is missing, inaccurate, or off-topic.

Late Work

Late work will be accepted until the date and time of the Unit Exam with increasing point penalties - 10% the first day, 20% the second day, up to a maximum of 50%. These penalties are designed to discourage you from procrastinating every assignment while being forgiving for times when life happens and you just can't get it done in time.

Life happens! Everyone gets one extended deadline (not including delays due to approved absences) – just shoot me an email as far in advance as you can (but no later than 24 hours after the due date) and I'm happy to accommodate. Deadlines will not be extended past the exam date.

Academic Integrity Policy

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

As students in the forensic science program, ethical behavior is paramount. Therefore, I adopt a very firm stance with respect to any violations of academic integrity.

Any students found to be copying work, distributing quiz/exam materials, dry-labbing (making up results), writing reports using a classmate's lab results without permission, or using any material not expressly permitted during an exam will immediately result in a report to the Academic Integrity Office and a **failure of the course**.

Inappropriately citing literature (that doesn't exist, doesn't represent what you say it does, etc.) or a TurnItIn score greater than 30% may result in a request to re-complete the assignment or receiving a zero for the assignment, depending on the severity. Not citing references or figures at all will result in a zero for the assignment. Repeat instances of any of these behaviors may result in a **failure of the course**.

Honesty and accountability go a long way with me – if you are confronted about a possible academic dishonesty violation, sanctions are likely to be lighter (especially for first offenses, honest mistakes, or instances where someone else has used your work) if you are up front and take responsibility for your actions.

Generative AI

Throughout the semester, you may use specific Generative AI (GenAI) tools for assistance with outlining or proofreading certain assignments, with guidance on responsible use. You should never use GenAI to create your assignments for you, and citations it uses are often incorrect or not appropriate for academic work.

I use GenAI to enhance materials, create scenarios, etc. I will always disclose how I use GenAI, and I expect the same from you. In accordance with the UNT Honor Code, unauthorized use of GenAI tools is prohibited. Using GenAI content without proper credit or substituting your own work with GenAI undermines the learning process and violates academic integrity. If you're unsure whether something is allowed, please seek clarification.

Lecture Policies

Attendance

Attendance is expected but is not graded. Graded in-class activities and quizzes are a regular occurrence. I will waive one missed in-class activity and drop the lowest quiz grade.

Class participation

Participation is a key part of this course and will enhance your retention of material and engagement with your peers. Participation will be monitored through checking notes after discussions, handing work, etc. If you miss half or more of a graded activity, you may receive half points.

University-Excused Absences

Communicate with me to schedule a make-up as soon as possible if you miss a graded activity or assessment.

- Preferably in advance but no later than 24 hours afterwards
- Make-up must be completed within 2 school days
- Extenuating circumstances will be considered as needed

Unexcused Absences

A maximum of one (1) quiz or exam missed because of an unexcused absence may be made up at my sole discretion. Follow guidelines for university-excused absences for consideration

Examination Policy

Exams will be administered in our classroom at our regularly scheduled class time. Any changes to exam dates will be announced in advance of the new date in class and via Canvas.

Latecomers will not be allowed to begin their exam after the first completed exam has been handed in.

Lab Policies

Attendance

Lab attendance is mandatory. If you are more than 15 minutes late, you may not be allowed to participate in lab that day. Labs and lab practicals take a lot of time, supervision, space, and supplies to set-up and run. Therefore, full make-ups are often not possible. I will excuse a maximum of ONE lab per student at my discretion if an approved make-up is not feasible.

There is ultimately no substitute for hands-on practice and collaboration. Excusing more than one lab per student would significantly alter the delivery of the material and impair my ability to assess your content mastery.

University-Excused Absences

Communicate with me to schedule a make-up, alternate activity, or attendance of a different section

- Preferably in advance but no later than 24 hours afterwards
- Make-up must be completed within 5 school days
- Extenuating circumstances will be considered as needed
- I will work with you to arrange an abbreviated activity, alternate assignment, or have you attend the other section.
- Note - You may not switch labs without prior authorization from instructor or TA as this still requires coordination and planning for supplies and group assignments.

Unexcused Absences

A maximum of one (1) lab because of an unexcused absence may be made up **at my sole discretion**. Follow guidelines for university-excused absences for consideration.

How to Succeed in this Course

Be Prepared

- Set aside time EVERY week to review lecture notes, read suggested materials, and prepare for any hands-on activities or labs.
- Work on your assignments in advance to take advantage of peer review and/or instructor feedback opportunities.
- Be sure to note major dates in your planner/calendar – labs, presentation deadlines and dates, exams, etc.

Communicate

Connect with me and your TAs through email and/or by attending office hours. For email communications, please include 'CHEM 4360' and a brief description in the subject line.

Note - During busy times, my inbox becomes rather full, so if you contact me and do not receive a response within two business days, please send a follow up email. A gentle nudge is always appreciated!

Use Your Resources

Academic Success Resources

UNT strives to offer a high-quality education in a supportive environment where you can learn, grow, and thrive. As a faculty member, I am committed to supporting you, and I want to remind you that UNT offers a range of mental health and wellness services to help maintain balance and well-being. Utilizing these resources is a proactive way to support your academic and personal success. To explore campus resources designed to support you, check out [mental health services](https://clear.unt.edu/student-support-services-policies) (<https://clear.unt.edu/student-support-services-policies>), visit unt.edu/success, and explore unt.edu/wellness. To get all your enrollment and student financial-related questions answered, go to scrappysays.unt.edu.

ADA Accommodation

The University of North Texas makes reasonable accommodations for students with disabilities. To request accommodations, you must first register with the Office of Disability Access (ODA) by completing an application for services and providing documentation to verify your eligibility each semester. Once your eligibility is confirmed, you may request your letter of accommodation. ODA will then email your faculty a letter of reasonable accommodation, initiating a private discussion about your specific needs in the course.

You can request accommodations at any time, but it's important to provide ODA notice to your faculty as early as possible in the semester to avoid delays in implementation. Keep in mind that you must obtain a new letter of accommodation for each semester and meet with each faculty member before accommodations can be implemented in each class. You are strongly encouraged to meet with faculty regarding your accommodations during office hours or by appointment. Faculty have the authority to ask you to discuss your letter during their designated office hours to protect your privacy. For more information and to access resources that can support your needs, refer to the [Office of Disability Access](https://studentaffairs.unt.edu/office-disability-access) website (<https://studentaffairs.unt.edu/office-disability-access>).

Help Me Maintain an Inclusive Learning Environment

I value the many perspectives students bring to our campus. Please work with me to create a classroom culture of open communication, mutual respect, and belonging. All discussions should be respectful and civil. Although disagreements and debates are encouraged, personal attacks are unacceptable. Together, we can ensure a safe and welcoming classroom for all. If you ever feel like this is not the case, please stop by my office and let me know. We are all learning together. We will discuss our classroom's habits of engagement and I also encourage you to review UNT's student code of conduct so that we can all start with the same baseline civility understanding ([Code of Student Conduct](https://policy.unt.edu/policy/07-012)) (<https://policy.unt.edu/policy/07-012>).

Stay Safe

While working in laboratory sessions, students enrolled in Principles of Forensic Science are required to follow proper safety procedures and guidelines in all activities requiring lifting, climbing, walking on slippery surfaces, using equipment and tools, handling chemical solutions and hot and cold products. Students should be aware that UNT is not liable for injuries incurred while students are participating in class activities. All students are encouraged to secure adequate insurance coverage in the event of accidental injury. Students who do not have insurance coverage should consider obtaining Student Health Insurance. Brochures for student insurance are available in the UNT Student Health and Wellness Center. Students who are injured during class activities may seek medical attention at the Student Health and Wellness Center at rates that are reduced compared to other medical facilities. If students have an insurance plan other than Student Health Insurance at UNT, they should be sure that the plan covers treatment at this facility. If students choose not to go to the UNT Student Health and Wellness Center, they may be transported to an emergency room at a local hospital. Students are responsible for expenses incurred there.