FORS 3357 DNA Structure and Analysis, Spring 2026, CRN# 26934

Instructor: Dr. Hsini Lin; Email: hlin@utep.edu
Lecture Time: 7:30 – 8:50 am, TR
Location: Undergraduate Learning Center 216
Office Hours: 10:00 – 11:30, TR or by appointment

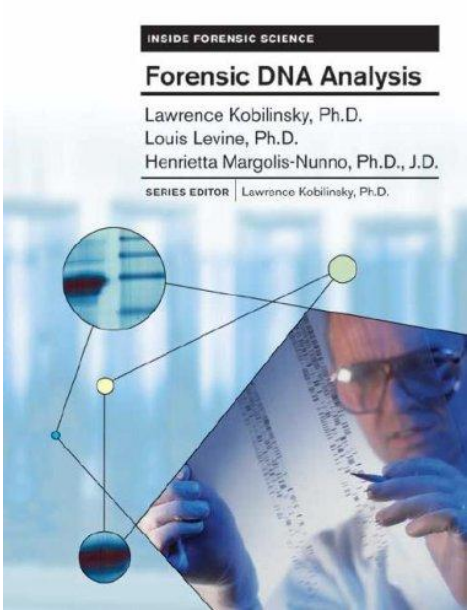
Course Objective

This course will provide students with a general understanding of the science of DNA analysis in criminal investigations. Students will learn the scientific principles behind DNA techniques. Upon completion of this course, you will be able to:

- Demonstrate an understanding of the techniques used to obtain samples and the proper storage of the samples.
- Demonstrate an understanding of the technique used to extract, quantify, amplify, and separate DNA from forensic samples.

Required Materials

- A good attitude and willingness to work hard.
- Access to online course materials on Blackboard.
- An e-mail address on record that you check regularly.
- *Textbook: Forensic DNA Analysis*. Lawrence Kobilinsky, Louis Levine, Henrietta Margolis-Nunno, 2010. ISBN 0791089231



Technology Requirement

Course content is delivered via the Internet through the Blackboard learning management system. Ensure your UTEP e-mail account is working and that you have access to the Web and a stable web browser. Google Chrome and Mozilla Firefox are the best browsers for Blackboard; other browsers may cause complications. When having technical difficulties, update your browser, clear your cache, or switch to another browser.

You will need access to a computer/laptop, a webcam, and a microphone. You will need to download or update the following software: Microsoft Office, Adobe Acrobat Reader, Windows Media Player, QuickTime, and Java. Check that your computer hardware and software are up-to-date and can access all parts of the course.

If you do not have word-processing software, you can download Word and other Microsoft Office programs (including Excel, PowerPoint, Outlook, and more) for free via UTEP's Microsoft Office Portal. Click the following link for more information about Microsoft Office 365 and follow the instructions.

IMPORTANT: If you encounter technical difficulties beyond your scope of troubleshooting, please contact the UTEP Help Desk, as they are explicitly trained to assist with students' technological needs. Please do not contact me for this type of assistance. The Help Desk is much better equipped than I am to assist you!

Course Communication

There are several ways we can keep the communication channels open:

- **Email**: UTEP e-mail is the best way to contact me. I will make every attempt to respond to your e-mail within 48 hours of receipt. When emailing me, be sure to email from your UTEP student account, and please put the course number in the subject line. In the body of your e-mail, clearly state your question. At the end of your e-mail, put your first and last name and university identification number.
- **Announcements**: Check the Blackboard announcements frequently for updates, deadlines, or other important messages.
- **Discussion Board**: If you have a question that you believe other students may also have, please post it in the Help Board of the discussion boards inside of Blackboard. Please respond to other students' questions if you have a helpful response.
- **Office Hours**: If you need to meet with me, please contact me to schedule an appointment. My office hours will be held on Zoom or Blackboard Collaborate.

Course Schedule

Students are expected to complete the assigned activities associated with the Course Schedule and Blackboard topics within the scheduled timeline. If students fail to submit any required work before the deadline, they will receive a grade of zero (0) for that assignment, with no exceptions.

Course Schedule (Please note that this schedule is subject to change)

Date		Topic	Required Reading
01/20	T	Introduction	
01/22	R	How to Identify a Criminal	Chapter 1
01/27	T	DNA: Sources and Structure	Chapter 2
01/29	R	DNA: Sources and Structure	Chapter 2
02/03	T	**EXAM 1**	
02/05	R	Genetics Underlying Forensic DNA Typing	Chapter 3
02/10	T	Genetics Underlying Forensic DNA Typing	Chapter 3
02/12	R	Sample Collection and Storage	
02/17	T	Virtual Applied Activities	
02/19	R	**EXAM 2**	
02/24	T	Procedures in Forensic DNA Analysis	Chapter 4
02/26	R	Procedures in Forensic DNA Analysis	Chapter 4
03/03	T	Interpretation of Autosomal STR DNA Analysis	Chapter 5
03/05	R	Interpretation of Autosomal STR DNA Analysis	Chapter 5
03/10	T	Project Preparation	
03/12	R	**EXAM 3**	
03/17	T	**Spring Break**	
03/19	R	**Spring Break**	
03/24	T	Mitochondrial DNA	
03/26	R	Y chromosome	
03/31	T	Frequency and Probability	Chapter 8
04/02	R	Frequency and Probability	Chapter 8
04/07	T	**EXAM 4**	
04/09	R	Project Preparation	
04/14	T	Presentation 1	
04/16	R	Presentation 2	
04/21	T	Presentation 3	
04/23	R	Presentation 4	
04/28	T	Presentation 5	
04/30	R	Presentation 6	
05/05	T	Presentation 7	
05/07	**R**	Presentation 8	

Grading

The letter grading system will be used. A = 90–100; B = 80−89; C = 70−79; D = 60−69; F = <60. I do round off. Your grade will be determined based on Attendance, Assignments, Exams, Group Project, and Quizzes.

Activity	% toward to final grade
Assignment	15%
Exam	50%
Project	20%
Quiz	15%

Assignments (15%): Assignments will be posted on the blackboard. Assignments should be submitted before their deadlines. I'm very strict with deadlines. 10 points per day will be deducted for late submission. No assignments will be accepted after the closing date. So, it is your responsibility to leave enough time to deal with possible personal issues or technical difficulties that may arise during online submission

Exams (50%): There will be 5 exams during the semester. Exams are only available during the scheduled time. If you fail to complete the exam before the deadline, 10 points/day will be deducted from your grade until the exam is closed. If you fail to complete the exam before the closing date, the exam will be closed, and you will receive a grade of zero (0) for that exam. The exams are timed.

Quizzes (15%): You must take the quizzes before their deadlines. If you fail to complete the quiz before the deadline, the quiz will be closed, and you will receive a grade of zero (0) for that quiz.

Project (20%): Students will complete an individual project applying forensic DNA analysis concept. The project will require students to apply course concepts related to sample collection, DNA extraction, amplification, typing, and interpretation. The project will be completed in stages throughout the semester and will culminate in a short in-class presentation during the final weeks of the course. Detailed project instructions, grading criteria, and assigned topics will be provided on Blackboard after the unit on Procedures in Forensic DNA Analysis.

Missed Examination Policy: A missed examination contributes zero percent toward the student's final course grade. Since this is an online course, exams are delivered via a database. **Once an exam has closed, it will no longer be possible to retake the exam. Do not use a wireless internet connection to complete assignments or take exams, as these connections can be unreliable and cause the submission of your work before you've completed the work, and nothing can be done**.

Make-up work will be given *only* in the case of a *documented* emergency. Make-up work may be in a different format than the original work, require more intensive preparation, and be graded with penalty points. If you miss an assignment and the reason is not considered excusable, you will receive a zero. Therefore, it is important to reach out to me—in advance if at

all possible—and explain with proper documentation why you missed a given course requirement. No further extensions or exceptions will be granted once a deadline has been established for make-up work.

Discussion Board: Discussion Board Topics allow students to strengthen their ability to communicate effectively in writing. Students should answer the question posed in the Discussion Board Topic and comment on responses made by other students. Students are expected to post contributions that are well thought out, well written, and that apply the principles of effective communication.

Responding to Posts

Discussion forums are meant for **interaction**, not just individual posts. To earn full credit, you are expected to **respond thoughtfully to your classmates**.

When replying:

- Go beyond simple agreement or disagreement. Comments such as *"I agree"* or *"good point"* do not add value. If you agree, explain why or add an example; if you disagree, do so respectfully and with reasoning.
- Aim for balanced responses by acknowledging strengths while also raising questions or offering constructive critique.
- Be specific and helpful. Strong replies move the discussion forward and encourage continued conversation.
- Critique ideas, not people. Personal attacks, disrespectful language, or offensive comments are not acceptable and will result in lost participation credit.

If a discussion becomes uncomfortable or unproductive, contact the instructor.

Inappropriate Behavior

Academic discussion forums require professional conduct. The following behaviors are not acceptable:

- Abusive, disrespectful, profane, threatening, or sexually suggestive language
- Personal attacks, insults, or dismissive comments toward others
- Racist, sexist, or otherwise hateful remarks
- Posting in all capital letters or responding in anger
- Sarcasm or humor that could be easily misinterpreted in writing

Disagreement is expected, but it must be expressed respectfully and without personal attacks. Inappropriate behavior may result in loss of participation credit and further action in accordance with course or university policies.

Absence/Drop/Incomplete Policy: It is your responsibility to complete the scheduled activities before the deadline. If you cannot complete the assigned activities due to a severe illness or a legitimate excuse, such as military personnel called to active duty or training, make arrangements with me before you leave. **April 2nd** is the last day students may drop with an

automatic “W.” An “I” (incomplete grade) can only be considered if requested by the student in advance of the conclusion of the course and only for legitimate, documented emergencies. Failure to request and negotiate the terms of an “Incomplete” grade before the conclusion of the course will result in denial, except in the most extraordinary circumstances.

Academic Integrity Policy: You must submit work that you yourself have completed. Work you submit that was not directly written by you is considered cheating and will result in a 0 for the assignment. Academic dishonesty is prohibited and is considered a violation of the UTEP Handbook of Operating Procedures. It includes but is not limited to cheating, plagiarism, and collusion. Cheating may involve copying or providing information to another student, possessing unauthorized materials during a test, or falsifying research data on laboratory reports. Plagiarism occurs when someone intentionally or knowingly represents the words or ideas of another as one’s own. Persistent submission of work performed by someone/something else will be reported to the Office of Student Conduct for evaluation. Collusion involves collaborating with another person to commit any academically dishonest act. Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. All suspected violations of academic integrity at The University of Texas at El Paso must be reported to the Office of Student Conduct and Conflict Resolution (OSCCR) for possible disciplinary action. To learn more, please visit HOOP: Student Conduct and Discipline. UTEP’s policies regarding academic integrity apply in this course.
Information on this policy can be found at http://academics.utep.edu/Default.aspx?tabid=23785

Accommodation Policy: The University is committed to providing reasonable accommodations and auxiliary services to students, staff, faculty, job applicants, applicants for admissions, and other beneficiaries of University programs, services, and activities with documented disabilities to provide them with equal opportunities to participate in programs, services, and activities in compliance with sections 503 and 504 of the Rehabilitation Act of 1973, as amended, and the Americans with Disabilities Act (ADA) of 1990 and the Americans with Disabilities Act Amendments Act (ADAAA) of 2008. Reasonable accommodations will be made unless it is determined that doing so would cause undue hardship on the University. Students requesting an accommodation based on a disability must register with the UTEP Center for Accommodations and Support Services (CASS). Contact the Center for Accommodations and Support Services at 915-747-5148, email them at cass@utep.edu, or apply for accommodations online via the CASS portal. The student is responsible for presenting any DSS accommodation letters and instructions to the instructor.