



K-12
TEXAS TECH

Forensic Science Semester B v8.0 – Syllabus

Course Name

FORENSC-B

Forensic Science v8.0 – Semester B

Course Information

FORENSC-B is the second semester of this two-semester course.

Take a new look at forensics through the lens of some of the world's most famous and intriguing crime cases. This course examines the latest forensic techniques and innovations used to solve crimes. It also focuses on basic scientific principles and laboratory processes used in the field, such as DNA testing, presumptive tests, and material analysis. Investigative experiences for students include electrophoresis and evidence analysis techniques such as fingerprinting, blood typing, and fiber analysis. Students also study crime scene investigation (CSI) and evidence collection using mock crime scenes.

*Note that case studies in forensic science examine evidence that may be sensitive to some students.

Course Delivery Method

Online

Contacting Your Instructor

You may contact your instructor using your Canvas Inbox. Technical support is available 24/7 at [TTU K-12](#).

Course Topics

After completing this course, the students will be able to

- Learn how tire tracks, footprints, and dental impressions are useful in forensics
- Identify types of weapons that could make tool marks at a crime scene

- Study the characteristics of fingerprints, blood spatter, glass, and paint evidence
- Discover the technologies and databases used to ID a fingerprint
- Learn the different methods of criminal profiling
- Learn how chemical reaction analysis is used in forensics
- Learn how to create a biological profile from skeletal remains
- Explain the manner, cause, and mechanism of death
- Study the timeline of human decomposition after a crime
- Identify the effects of drug and toxin exposure
- Understand how Newton's laws explain crimes with falls and collisions
- Understand the role of momentum during and after a collision
- Identify the different substances used to start a fire or build an explosive
- Learn the steps of fire and explosive evidence collection and investigation
- Study how accelerant and explosive residues are analyzed at a crime scene
- Learn the usefulness of sound in investigations of explosives
- Conduct analysis of evidence samples
- Use evidence to support a claim about a crime

Textbook and Materials

No textbooks required. All content is within Canvas.

Materials

- Three pens of the same color ink and water-soluble
- Slow absorbing paper towels or coffee filters
- Collecting bags (Ziploc bags or envelopes)
- Styrofoam plates or soft cookies or bread
- Graphite pencils (most common)
- Three pieces of clothing or cloth
- Four glasses or clear plastic cups
- White paper (avoid card stock)
- Magnifying glass, if available
- Permanent marker
- Gloves, if possible
- Scissors
- Ruler
- Water
- Pencil
- Tape

Technical Requirements

- Internet access – preferably high speed (for accessing Canvas)
- browser (we recommend Chrome)
- supported browser plugins and settings
The following plugins and settings may be required to use our courses.
 - JavaScript enabled
 - Cookies enabled
 - Java installed
- Email
- Printing capabilities
- Adobe Reader (download from [Adobe](#))
- Audio and video capabilities (for watching/listening to course content)
- PDF app (free options available)

Technical Skill Requirements

Be comfortable with the following:

- accessing online learning materials via Canvas
- Internet search engines and browsers (we recommend Chrome)
- uploading assignments into Canvas (there will be instructions for uploading assignments)

Course Pacing

This course is designed to be completed in 18 weeks.

- Print this guide and use a calendar to fill in your goal dates for completing each Module.
- To achieve success, students are expected to submit work in each course weekly.
- Students can learn at their own pace; however, "any pace" still means that students must make progress in the course every week.
- Post the pace guide in a place where you and your Parent or Guardian will see it every day (on the refrigerator or next to the computer). Give yourself a check every time you complete a task, and celebrate your efforts!

Weeks	Lessons	Due Date (you write this in)
1	Checkpoint 1 04.00 Pattern Evidence Pretest 04.01 Introduction to Pattern Evidence	
2	04.02 Casts and Impressions 04.03 Tool Mark Evidence	
3	04.04 Fingerprints 04.05 Glass and Paint Evidence	
4	04.06 Blood Spatter Evidence 04.07 Forensic Psychology	
5	*04.09 Pattern Evidence Exam	
6	05.00 Biochemical Evidence Pretest 05.01 Introduction to Biochemical Evidence	
7	05.02 Biochemistry Basics 05.03 Anthropology	
8	05.04 Pathology 05.05 Toxicology	
9	05.06 Drug and Toxin Analysis 05.07 Mock Crime Scene II	
10	Checkpoint 2 *05.09 Biochemical Evidence Exam	
11	06.00 Projectile and Flammable Evidence Pretest 06.01 Introduction to Projectile and Flammable Evidence	
12	06.02 Physics Basics 06.03 Falls and Collisions	
13	06.04 Ballistics 06.05 Arson	

Weeks	Lessons	Due Date (you write this in)
14	06.06 Explosives 06.07 Forensic Careers Checkpoint 3	
15	*Final Exam	
16	Floating Vacation Week	
17	Floating Vacation Week	
18	Floating Vacation Week	

Course Credit

Your grade will be calculated as follows:

- formative assessments (50%)
- summative assessments (20%)
- summative final exam (30%)

Assignments are labeled as “summative” or “formative” under Grades in Canvas.

Course Completion and Extensions

- Students may not complete the course in less than 30 days.
- All courses expire 180 days after the enrollment date.

Academic Integrity

It is the aim of the faculty of Texas Tech University to foster a spirit of complete honesty and high standard of integrity. The attempt of students to present as their own any work not honestly performed is regarded by the faculty and administration as a most serious offense and renders the offenders liable to serious consequences, possibly suspension.

“Scholastic dishonesty” includes, but is not limited to, cheating, plagiarism, collusion, falsifying academic records, misrepresenting facts, and any act designed to give unfair academic advantage to the student (such as, but not limited to, submission of essentially the same written assignment for two courses without the prior permission of the instructor) or the attempt to commit such an act.

Artificial Intelligence (AI) Use Policy

This policy covers any generative AI tool, such as ChatGTP, Elicit, Photo Math, etc. This includes text and artwork/graphics/video/audio, etc.

All work submitted in this course must be your own. You may not use artificial intelligence tools to complete your assignments in this course.

If an instructor suspects that an assignment is not the work of the student, it will receive a score of zero. The instructor will message the student or provide feedback on the assignment indicating the need to schedule a one-on-one video conference, during which the student will be required to demonstrate their skills or knowledge through an alternative or mutually agreed-upon assignment. The grade of the alternate or agreed upon assignment will be determined at the instructor's discretion with the highest possible score being 70%.

If it is determined that a student has violated final exam directions on Final Exam A or CBE Set 1, the exam will be scored as zero. The student may take Final Exam B or CBE Set 2 with the highest possible score being 70%.

The incident will be reported to Texas Tech K-12 Administration and documented in the student's file. Continued violations of Texas Tech University's Academic Integrity Policy will result in the removal of the student from the program.

Student/Parent Expectations

You will be expected to log into the Canvas course regularly to be aware of possible announcements/reminders and to pace your student's progress in the course.

The following are prohibited while using the Canvas interface:

- spamming;
- hacking; and
- using TTU or Canvas email for commercial purposes;

Inappropriate behavior shall result in consequences ranging from a request to correct the problem, to removal from the course or even the university, depending on the severity of the behavior. Disciplinary actions will be taken according to the TTU K-12 Student Handbook.

Communication

- You can expect a reply from your instructor within 2 business days.
- Use the Canvas Inbox for sending messages to your instructor.

Submitting Assignments

You will submit all assignments through Canvas, rather than by mail or email.

Technical Difficulties

Getting Help

For student assistance with Canvas, visit [TTU K-12 Support](#).

Computer Problems

A working computer is necessary for online coursework. Computer problems will not be accepted as a valid reason for failure to complete course activities within the allotted time frame. Identify a second computer, before the course begins, that you can use if you experience computer problems.

Server Problems

When the Canvas server needs to be taken down for maintenance, the Canvas administrator will post an announcement in your course informing you of the time and date. If the server experiences unforeseen problems, your course instructor will notify you.

Lost or Corrupted Files

You must keep/save a copy of every project/assignment on an external disk or personal computer. In the event of any kind of technology failure (e.g., Canvas server crash or virus infection, students' own computer problems, loss of files in cyberspace, etc.) or any disputes, the instructor may request or require you to resubmit the files. In some instances, the instructor may need to open another attempt within Canvas, so communication with your instructor is critical in these circumstances.