



TECHNICAL COLLEGE OF THE LOWCOUNTRY

Technical College of the Lowcountry
921 Ribaut Road ~ PO Box 1288
Beaufort, SC 29901-1288

Public & Human Services
Building 16, Room 132
843- 525-8349

CRJ 226 Advance Bloodstain/Firearm Analysis

Course Description

This course examines the principles and techniques used to establish the parameters in bullet trajectory and bloodstain pattern analysis as they relate to crime scene reconstruction.

Prerequisite: CRJ 101, RDG 100. 3 Cr (3 lect/pres, 0 lab, 0 other)

Course Focus

Students will be introduced to the identifying, collecting, and preserving, bloodstains and firearm evidence. This course will provide the student with the requirements for using evidence within the criminal justice system.

Text and References

Required

Criminalistics” An Introduction to Forensic Science, 11th Edition, Saferstein, R. Pearson Education, Inc. 2015. ISBN 10: 0-13-345882-2

Optional

Criminal Evidence, 1st Edition, Britz, M. T., Pearson Education, Inc., 2008
ISBN 10: 0-205-43971-3

Course Goals

The following list of course goals will be addressed in the course. These goals are directly related to the performance objectives. (*designates a CRUCIAL goal)

1. Define crime scene reconstruction
2. Identify information gained from bloodstain pattern analysis
3. Explain how surface texture, directionality, and angle of impact affect the shape of individual bloodstains
4. Calculate the angle of impact of a bloodstain using its dimensions
5. Describe the classification of low-, medium-, and high-velocity impact spatters

6. Discuss the methods to determine the area of convergence and area of origin for impact spatter patterns
7. Understand how various blood pattern types are created
8. Describe the methods for documenting bloodstain patterns at a crime scene
9. Describe techniques for rifling a barrel
10. Recognize the class and individual characteristics of bullets and cartridge cases
11. Understand the use of the comparison microscope to compare bullets and cartridge cases
12. Explain the concept of the NIBIN database
13. Explain the procedure for determining how far a weapon was fired from a target
14. Identify the laboratory tests for determining whether an individual has fired a weapon
15. List some common field reagents used to enhance bloody footprints
16. Explain the role of the patrol officer in the preliminary investigation
17. Explain the ways that field notes can be used to assist the investigator in the preparation of his or her report
18. Explain the proper methods of crime scene photography and preservation of photographic evidence
19. Understand how to properly capture the crime scene on digital video
20. Understand the usefulness of the rough and finalizing the crime scene sketch
21. Understand the stage of the preliminary investigation and the role of the first officer
22. Understand the various methods for handling special situations at the scene
23. Explain the importance of interviewing witnesses at a crime scene and proper ways of conducting a neighborhood canvass
24. Identify a crime scene
25. Preserve the evidence at a crime scene
26. Search a crime scene
27. Collect evidence at a crime scene
28. Complete proper forms for submission of evidence
29. Determine the types of evidence
30. Contrast guilty actions and guilty mind
31. Define circumstantial evidence and direct evidence
32. Compare and contrast plain view versus plain feel
33. Debate *Terry v. Ohio*
34. Understand the importance of the "fruits of a poisonous tree" doctrine
35. Define the exclusionary
36. Explain exceptions to the exclusionary rule
37. Debate *Mapp v. Ohio*
38. Search a mock crime scene
39. Collect evidence from mock crime scene
40. Recover blood from mock crime scene
41. Compare unknown bullet with known bullet
42. Compare unknown cartridge with known cartridge
43. Understand the dynamic of firing a weapon
44. Explain the parts of a firearm
45. Properly maintain and clean a firearm

Student Contributions

Each student will spend at least 6 hours per week preparing for class. Attendance is critical in this class. There will be a midterm examination and a final examination. It is the responsibility of the student to take the midterm and final within the specified due dates. The syllabus is

subject to change. All changes will be discussed and students will be accountable for such changes. Each student will participate in a group, investigate a mock crime scene, and provide a presentation of the bloodstains and firearm evidence.

STATEMENT OF NON-DISCRIMINATION

The Technical College of the Lowcountry is committed to a policy of equal opportunity for all qualified applicants for admissions or employment without regard to race, gender, national origin, age, religion, marital status, veteran status, disability, or political affiliation or belief.

ADA STATEMENT

The Technical College of the Lowcountry provides access, equal opportunity and reasonable accommodation in its services, programs, activities, education and employment for individuals with disabilities. To request disability accommodation, contact the counselor for students with disabilities at (843) 525-8228 during the first ten business days of the academic term.

ACADEMIC MISCONDUCT

There is no tolerance at TCL for academic dishonesty and misconduct. The College expects all students to conduct themselves with dignity and to maintain high standards of responsible citizenship.

It is the student's responsibility to address any questions regarding what might constitute academic misconduct to the course instructor for further clarification.

The College adheres to the Student Code for the South Carolina Technical College System. Copies of the Student Code and Grievance Procedure are provided in the *TCL Student Handbook*, the Division Office, and the Learning Resources Center.

ATTENDANCE

The College's statement of policy indicates that students must attend **ninety percent of total class hours** or they will be in violation of the attendance policy.

- Students not physically attending class during the first ten calendar days from the start of the semester must be dropped from the class for NOT ATTENDING.
 - Students taking an online/internet class must sign in **and** communicate with the instructor within the first ten calendar days from the start of the semester to indicate attendance in the class. Students not attending class during the first ten calendar days from the start of the semester must be dropped from the class for NOT ATTENDING.
 - Reinstatement requires the signature of the division dean.
- In the event it becomes necessary for a student to withdraw from the course OR if a student stops attending class, it is the student's responsibility to initiate and complete the necessary paperwork. Withdrawing from class may have consequences associated with financial aid and time to completion.
- When a student exceeds the allowed absences, the student is in violation of the attendance policy. The instructor MUST withdraw the student with a grade of "W", "WP", or "WF" depending on the date the student exceeded the allowed absences and the student's progress up to the last date of attendance
or

- under extenuating circumstances and at the discretion of the faculty member teaching the class, allow the student to continue in the class and make-up the work. This exception must be documented at the time the allowed absences are exceeded.
- Absences are counted from the first day of class. There are no "excused" absences. All absences are counted, regardless of the reason for the absence.
- A student must take the final exam or be excused from the final exam in order to earn a non-withdrawal grade.
- A copy of TCL's **STATEMENT OF POLICY NUMBER: 3-1-307 CLASS ATTENDANCE (WITHDRAWAL)** is on file in the Division Office and in the Learning Resources Center.

ONLINE ATTENDANCE PROCEDURE

For all online courses, students must complete an assignment designated by the instructor during the first week of classes. The instructor will drop the student from the course if the initial assignment is not completed.

Instructors will withdraw students from the class when 90% attendance is not maintained. Attendance in an online course is defined by regular course access and by timely completion of assignments as required by the instructor. Each student will be expected to access the web class at least once a week and complete 90% of assignments on time. Additional access is encouraged and may be necessary for successful completion of classes.

Failure to log in and complete assignments will result in the student being withdrawn from the course. The instructor will assign a grade of "W," "WP," or "WF" based upon the student's academic standing as the last date of attendance, which is the last login. Students are responsible for any financial matters associated with an administrative withdrawal. If a student fails to email the instructor (using the my.tcl.edu email account) requesting to be dropped from the course and has not submitted the initial assignment required during the first week of class, the instructor will assign a "Never Attended" code in the student information system (web-advisor) no later than ten calendar days after the first day of the class. Students who are dropped as a result of never attending the course are still responsible for all fees associated with the course.

HAZARDOUS WEATHER

In case weather conditions are so severe that operation of the College may clearly pose a hardship on students and staff traveling to the College, notification of closing will be made through the following radio and television stations: WYKZ 98.7, WGCO 98.3, WGZO 103.1, WFXH 106.1, WWVW 106.9, WLOW 107.9, WGZR 104.9, WFXH 1130 AM, WLVH 101.1, WSOK 1230 AM, WAEV 97.3, WTOC TV, WTGS TV, WJWJ TV, and WSAV TV. Students, faculty and staff are highly encouraged to opt in to the Emergency Text Message Alert System. <http://www.tcl.edu/current-students/text-alert>

EMERGENCY TEXT MESSAGE ALERT

Students, faculty and staff are highly encouraged to opt in to the Emergency Text Message Alert System. Participants receive immediate notification of emergency events and weather cancellations via text messaging on their cell phones. Participants can also opt in to receive non-emergency news and

announcements. Go to www.tcl.edu. On the homepage, click on “emergency TextAlert at TCL” and fill out the form or go to <http://www.tcl.edu/current-students/text-alert>

Course Evaluation

Your performance objective and exams will be translated to points and the points to grades. There are 100 possible points and grades will be earned as follows:

A = 90-100

B = 80-89

C = 70-79

D = 60-69

Tests and Quizzes

The midterm and final examinations are comprehensive examinations of previous lecture and consists of 50 multiple-choice, true-false, fill-in the blank, and essay questions. Each exam is value at 15% of the final grade for a total of 30%.

Class Participation/Assignments

Each student is required to participate in the classroom discussion and complete all homework assignments. Discussions will develop from the weekly reading and current legal trends. Classroom participation is valued at 20% of the final grade.

Group Project

Each student will participate in a group. Each student will received an individual grade and a group grade. The group will investigate a crime scene, collect the evidence, and submit the proper forms. The individual grade will be the results of the student participation and a survey of the group members. The group grade will be determined from the success of the investigation and collection of the evidence. The group will investigate a crime scene, collect the evidence, and submit the proper forms. The group will conduct a presentation of their findings. Each member must participate in the presentation.

Practicum is valued at 10%

Presentation is valued at 10%

Lab

Each student is required to participate in the firearms lab and complete all assignments to include participating on the firing range. Lab is valued at 30% of the final grade.

SAFETY ADDENDUM

Purpose.

The purpose of this safety addendum is to provide each student with safety guidelines during an incident, emergency, or disaster at TCL. In addition, it provides students guidelines for lockdown procedures, evacuation procedures, and active shooter.

Definitions

An incident is any event, potential or actual, that may impact normal operations but has no immediate health or life threatening consideration or serious effect on the overall functional capacity of the College. An event of this nature should be reported to the Office of the Vice President for Administrative Services. Also notify the off-site campus administrator if applicable.

An emergency is any incident, potential or actual, which may endanger life or health or which affects an entire building or buildings, and will disrupt the overall operations of the College. Outside emergency services will probably be required, as well as major efforts from campus support services. Major policy considerations and decisions will usually be required from the college administration during times of crises. An emergency should be reported immediately by directly using **911** if life or health/injury considerations exist and then to the Office of the President or Vice President for Administrative Services as quickly as possible. Also notify the off-site campus administrator if applicable.

A disaster is any event or occurrence that has taken place and has seriously impaired or halted the operations of the College. In some cases, mass personnel casualties and severe property damage may be sustained. A coordinated effort of all campus-wide resources is required to effectively control the situation. Outside emergency services will be essential. In all cases of disaster, an Emergency Control Center will be activated, and the appropriate support and operational plans will be executed. The disaster should be immediately reported, first by calling **911** and then to the Office of the President or Vice President for Administrative Services. Also notify the off-site campus administrator if applicable.

Types of Emergencies

- Hurricane
- Tornado
- Fire
- Biochemical or Radiation Spill
- Explosion/Bomb
- Downed Aircraft (crash which directly impacts campus operations)
- Utility Failures
- Violent or criminal behavior
- Psychological Crisis

Procedures

Active Shooter

Run/hide/fight (<http://www.fbi.gov/about-us/cirg/active-shooter-and-mass-casualty-incidents/run-hide-fight-video>)

Building Evacuation

1. Building evacuations occur when an alarm sounds and/or upon notification by Security or the Emergency Director.
2. When the building evacuation alarm is activated during an emergency, individuals should exit according to the building evacuation plan and alert others to do the same.
3. Once outside, individuals should proceed to a clear area that is at least 500 feet away from the affected building. Streets, fire lanes, hydrant areas and walkways should be kept clear for emergency vehicles and personnel.
4. Individuals should not return to an evacuated building unless told to do so by Security or the Emergency Director.

5. Individuals should assist persons with disabilities in exiting the building. Elevators are reserved for disabled persons

Campus Evacuation

1. A uniformed Security Guard, the Emergency Director, or an Emergency Resource Team member will announce evacuation of all or part of the campus grounds.
2. All persons (students and staff) are to immediately vacate the campus, or in the case of a partial evacuation relocate to another part of the campus grounds as directed.

Lockdown

1. Clear the halls
2. Report to the nearest classroom/office
3. Assist those needing special assistance
4. Ensure classroom/office doors are closed and locked
5. Turn off lights
6. Stay away from doors and windows (out of the line of sight)
7. BE QUIET and follow instructor's directions
8. Silence cell phones
9. Wait for the "All Clear" before leaving

Course Schedule

Developed/Revised: January 7, 2012