Course Description: This is an introductory course in the basic and advanced scientific methods used in forensic investigations. The focus of this course will be placed on the methodologies, cognitive processes, deductive reasoning and the scientific processes of hypothesis development, analysis of data, and the use of scientific materials in gathering and processing evidence found at crime scenes. This course will cover an introduction to the legal and medicolegal systems, ethics and the professional practice of forensic investigations. Students will investigate the process of evidence identification, collection and preservation processes. Students will discuss and be exposed to the legal issues surrounding quality assurance and the process of obtaining sufficiency of sample. An ongoing introduction to courtroom testimony is included in the course and the student will be challenged to support issues and practices in a mock adversarial process. Students will be made aware of the need for technical and/or scientific writing practices to maintain compliance with industry standards and credibility.


Suggested Texts:

Student Outcomes:
a. Students will learn through group project(s) utilizing the cognitive and affective skills learned in the classroom.
b. Informal assessments through in-class exercises.
c. Laboratory experiments if provided utilizing Forensic Science in the laboratory, Application of the Social Sciences, Legal and Ethical Issues in Forensic Science
d. Field exercises, directed study and self-study.
e. Writing assignments utilizing text formatted terminology, appropriate for testimonial presentation.

Instructional Methods:
Lecture: instructor in a lecture format will present Text material.
Audio/Visual: Video material and PowerPoint presentations make up a portion of the presentations.
Written: Students will be required to conduct a full-field background investigation on themselves.
Group Work: Students will be broken up into teams to complete class projects.
Reteaching/Check for Understanding: Each class segment will culminate in a review of the course objectives for that particular class.

Student Requirements:
Research Paper: (40%) The student will prepare a PowerPoint presentation on a specific topic related to their field of study and the application of forensic science to that field. Topics subject to review and approval by the instructor.

Student Portfolio/Mid Term: (20%) The student will conduct a full-field background investigation on themselves, combining the material required in a large, three-ring binder, following the format required by the Office of Personnel Management Standard Form 86 (SF-86) appropriate for top secret clearance. This project will include an enhancement of the material by expanding the inclusion of course material from other degree plan disciplines and three additional knowledge, skills, and abilities treatises, related to a desired employment position. The student will be required to articulate those skills relative to the field of forensic investigations, paying close attention to the level of expertise required by the agency/corporation wherein they will one day seek employment.

Final Exam: (40%) The final exam is an application level review of the student’s abilities in utilizing the concepts learned throughout the semester. Students will work in teams to create an environment wherein they will challenge each other to incorporate the scientific methods learned during the semester.

Grading/Evaluation Procedures
Assessment: Insofar that a great deal of emphasis will be placed on the student to perform up to industry standards, it is necessary that the student provide only the best in written assignments. Points will be deducted for poor grammar, spelling errors, poor sentence structure, common format errors, incorrect format and lack of clarity. Group work will be assessed based on recommendations by team members as to who performed in concert to complete the task at hand. Team members who fail to support the team will be graded accordingly. Student portfolios will be graded for completeness. You are not allowed to have any spelling, grammar, punctuation, sentence structure, or format errors in your written documents. All written materials are to be taken to the writing center for review and correction prior to submission for your grade. If there are more than three errors in any written document, your paper will be returned with a grade of “incomplete” assigned to the paper and your course grade. No late papers will be allowed barring natural disaster or tragic family occurrence. This is not negotiable. APA format is the industry standard and will be applied to all written documents.

Late Assignments/Extra Credit: This industry does not accept late work nor does it give “extra credit”. Neither do I.

Absences: In addition to following TAMU-CC policy on absences, I recognize that things happen in our lives that interfere with our ability to complete our education. I will do all in my power to accommodate any student who has shown an honest effort, to complete this course, but who, for reasons beyond their control, find themselves in a position that requires them to prioritize their lives around their family, to complete this course, in another fashion, if possible. However, recurring unexcused absences will certainly lead to the student being dropped from my class.

Tardiness: Students who are consistently late interfere with my ability to lecture, miss important information and disrespect their fellow classmates. After the third tardy, I will have a discussion with the student. If there is a valid reason for the tardiness, we will work something out. If there is not a valid reason for the tardiness, the student will be asked to drop the class until they can mature to the level of responsibility to meet their commitments.

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call or visit Disability Services at (361) 825-5816 in Driftwood 101.

If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.

COURSE OUTLINE
Objective 1:
Course Overview
Establish a Contract for Learning
Role of the Forensic Pathologist
Forensic Nursing
Forensic Toxicology
Forensic Odontology
Forensic Anthropology
Forensic Taphonomy
Forensic Entomology
Assignment of Research Paper Topics

Objective 2:
The Forensic Laboratory
Identification of blood stain characterization
Biological fluids and stains
Trace Evidence and Impressions

Objective 3:
Forensic Engineering
Structural failures
Basic fire and explosion Investigation
Vehicular Accidents

Objective 4:
Use of Computers in Forensic Science
Forensic Psychology
Forensic Psychiatry
Personality Profiling

Objective 5:
Logic, ethics and the criminal justice system
Forensic Evidence
Legal and social aspects of Forensic Science

Research Papers/PowerPoint Presentations: The presentation should contain a minimum of ten slides. The text should compliment the lecture you will give to the student audience. The purpose of this assignment is two-fold: 1) to get you ready to conduct research which you will present to a jury or a group of peers and 2) to let you have a prepared document you can use to teach someone else about this field of study. For some students, this paper may be your first experience preparing a high quality professional document. Starting this project at the beginning of class and working on it throughout the term will help significantly and avoid undue stress and panic near the end of class. No errors will be allowed in this presentation. It must be perfect.

Disabilities: Students with disabilities or learning needs should coordinate with the appropriate TAMUCC services in order to allow me to help you learn in a manner conducive with your limitations or enhancements.

Caveat:
The field of forensic science is foremost a general study of how nature interacts with humanity. In particular, how nature interacts with the unlawful acts perpetrated on man and nature. To this end, the evidentiary importance of providing accurate, credible and scientifically collected and preserved items that portray or lead a reasonable and prudent person to believe that a crime is being, has been or is about to be committed is of paramount importance. In this area, there is no room for error. It is either 100% correct or it is 100% wrong.
My goal is to give you the basic tools that will allow you to apply the knowledge and skills you have acquired from life and your formal education, to seek the truth and uncover the often hidden attributes of the beginning of life, death and the time and sequence of events between these two most important points in our existence. Insofar that life is a mystery, your goal is to make sense of those mysterious events in our lives and to use these skills for the betterment of mankind. 100% of the time wherein you apply these skills.

This syllabus is subject to change depending on the needs of the students and the dynamics of the learning experience.