Professional Practice in Forensic Science  
(BIMS 3325.001)  
Department of Life Sciences  
Spring 2018

A. **COURSE INFORMATION**

- **Course number/section:** BIMS 3325.001
- **Class meeting time:** TR 5:30pm-6:45pm
- **Class location:** OCNR-132; ECMS 210
- **Course Website:** Blackboard

B. **INSTRUCTOR INFORMATION**

- **Instructor:** Edelmiro Garcia, MS, ED.
- **Office location:** N/A
- **Office hours:** TR 5:00-5:30pm
- **Telephone:** 361-813-3761
- **e-mail:** edelmiro.garcia@tamucc.edu
- **Appointments:** Appointments made via email

C. **COURSE DESCRIPTION**

**Catalog Course Description**

An introduction to industry standards and ethics for professional forensic scientists. This course analyzes cognitive processes, scientific methods and quality control/quality assurance issues in forensic investigations. It also stresses maintaining credibility in an adversarial legal system through the development of technical/scientific speaking and writing skills.

**Extended 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.

D. **PREREQUISITES AND COREQUISITES**

**Prerequisites**
BIMS 3320: Survey of Forensic Science

Corequisites
None

E. REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES

Required Textbook(s)
   ISBN: 0-8493-2747-4

Optional Textbook(s) or Other References

F. STUDENT LEARNING OUTCOMES AND ASSESSMENT

Assessment is a process used by instructors to help improve learning. Assessment is essential for effective learning because it provides feedback to both students and instructors. A critical step in this process is making clear the course’s student learning outcomes that describe what students are expected to learn to be successful in the course. The student learning outcomes for this course are listed below. By collecting data and sharing it with students on how well they are accomplishing these learning outcomes students can more efficiently and effectively focus their learning efforts. This information can also help instructors identify challenging areas for students and adjust their teaching approach to facilitate learning.

Throughout the length of this course:

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

G. INSTRUCTIONAL METHODS AND ACTIVITIES

- Lecture: Instructor/student 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.

### H. MAJOR COURSE REQUIREMENTS AND GRADING

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>% of FINAL GRADE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Paper</td>
<td>40%</td>
</tr>
<tr>
<td>Student Portfolio/Mid Term</td>
<td>20%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>40%</td>
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</table>

**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) (E-QIP) 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, abilities, and 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.

I. COURSE CONTENT/SCHEDULE

<table>
<thead>
<tr>
<th>DATE (BY DAY OR WEEK)</th>
<th>TOPIC</th>
<th>CHAPTER(S)</th>
<th>ASSIGNMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1-3</td>
<td>Topic 1</td>
<td>1-3</td>
<td>Presentations</td>
</tr>
<tr>
<td>Week 4-5</td>
<td>Topic 2</td>
<td>4-6</td>
<td>Presentations</td>
</tr>
<tr>
<td>Week 6-7,8</td>
<td>Holiday – No classes</td>
<td>Spring Break</td>
<td>No Assignment</td>
</tr>
<tr>
<td>Week 9-10</td>
<td>Portfolio</td>
<td></td>
<td>4 Nij Certifications</td>
</tr>
<tr>
<td>Week 13-15</td>
<td>Topic 3</td>
<td>7-9</td>
<td>Group Work</td>
</tr>
<tr>
<td>Week 16-18</td>
<td>Topic 4</td>
<td>10-13</td>
<td>Group Work</td>
</tr>
<tr>
<td>Week 13-14</td>
<td>Topic 5</td>
<td>14-17</td>
<td>Group Work</td>
</tr>
<tr>
<td></td>
<td>Decomp Project</td>
<td>Documentation</td>
<td>Presentations</td>
</tr>
<tr>
<td>May 7-10</td>
<td>Final Exam</td>
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Note: Changes in this course schedule may be necessary and will be announced to the class by the Instructor. The assignments and exams shown are directly related to the Student Learning Outcomes described in Section F.

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

J. COURSE POLICIES

Attendance/Tardiness

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.

Late Work and Make-up Exams
This industry does not accept late work, nor does it give “extra credit”. Neither do I.

Extra Credit: No Extra Credit will be given.

Cell Phone Use: No cell phones during Tuesday nights class, phones should be silenced.

Laptop Use: Students may use computer for assigned class work.

Food in Class: Snacks or drink will be allowed at Tuesday night’s class, not during lab days except for drink.

Missed Exam: Exams will be part of your lab exercises, labs will not be repeated. Presentations can be rescheduled only if instructor is notified 2 weeks in advance.

Participation: Participation in this course is paramount a student who misses more than three lab days or three lecture days will lose a letter grade.

Others: All assignments will be due at due date set by instructor. Instructor reserves the right to modify deadlines to accommodate any changes to syllabus or cancelations of class.

K. COLLEGE AND UNIVERSITY POLICIES

• Academic Integrity (University)
  University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, falsification, forgery, complicity or plagiarism. (Plagiarism is the presentation of the work of another as one’s own work.) In this class, academic misconduct or complicity in an act of academic misconduct on an assignment or test will result in a failing grade.

• Classroom/Professional Behavior
  Texas A&M University-Corpus Christi, as an academic community, requires that each individual respect the needs of others to study and learn in a peaceful atmosphere. Under Article III of the Student Code of Conduct, classroom behavior that interferes with either (a) the instructor’s ability to conduct the class or (b) the ability of other students to profit from the instructional program may be considered a breach of the peace and is subject to disciplinary sanction outlined in article VII of the Student Code of Conduct. Students engaging in unacceptable behavior may be instructed to leave the classroom. This prohibition applies to all instructional forums, including classrooms, electronic classrooms, labs, discussion groups, field trips, etc.
• Statement of Civility
Texas A&M University-Corpus Christi has a diverse student population that represents the population of the state. Our goal is to provide you with a high quality educational experience that is free from repression. You are responsible for following the rules of the University, city, state and federal government. We expect that you will behave in a manner that is dignified, respectful and courteous to all people, regardless of sex, ethnic/racial origin, religious background, sexual orientation or disability. Behaviors that infringe on the rights of another individual will not be tolerated.

• Deadline for Dropping a Course with a Grade of W (University)
I hope that you never find it necessary to drop this or any other class. However, events can sometimes occur that make dropping a course necessary or wise. Please consult with your academic advisor, the Financial Aid Office, and me, before you decide to drop this course. Should dropping the course be the best course of action, you must initiate the process to drop the course by going to the Student Services Center and filling out a course drop form. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. Please consult the Academic Calendar (http://www.tamucc.edu/academics/calendar/) for the last day to drop a course.

• Grade Appeals (College of Science and Engineering)
As stated in University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules website at http://www.tamucc.edu/provost/university_rules/index.html, and the College of Science and Engineering Grade Appeals webpage at http://sci.tamucc.edu/students/GradeAppeal.html. For assistance and/or guidance in the grade appeal process, students may contact the chair or director of the appropriate department or school, the Office of the College of Science and Engineering Dean, or the Office of the Provost.

• Disability Services
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 (361) 825-5816 or visit Disability Services in Corpus Christi Hall 116.

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.

http://disabilityservices.tamucc.edu/

- **Statement of Academic Continuity**
  In the event of an unforeseen adverse event, such as a major hurricane and classes could not be held on the campus of Texas A&M University–Corpus Christi; this course would continue through the use of Blackboard and/or email. In addition, the syllabus and class activities may be modified to allow continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student.

**L. OTHER INFORMATION**

- **Academic Advising**
  The College of Science & Engineering requires that students meet with an Academic Advisor as soon as they are ready to declare a major. The Academic Advisor will set up a degree plan, which must be signed by the student, a faculty mentor, and the department chair. Meetings are by appointment only; advisors do not take walk-ins. Please call or stop by the Advising Center to check availability and schedule an appointment. The College’s Academic Advising Center is located in Center for Instruction 350 or can be reached at (361) 825-3928.

**M. 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.

**GENERAL DISCLAIMER**

I reserve the right to modify the information, schedule, assignments, deadlines, and course policies in this syllabus if and when necessary. I will announce such changes in a timely manner during regularly scheduled lecture periods.