## Syllabus – Spring 2021

## Introduction to Forensic Crime Analysis (ANTH 357.001/.002)

Prerequisites: ANTH 212 (Human Evolution and Prehistory), CRMJ 254 (Introduction to Criminal Justice), or SOCI 101 (Introduction to Sociology)

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Instructor: Dana D. Kollmann Office Location: LA3333 Office Phone: 410-704-2350

Email address: dkollmann@towson.edu

Office Hours: Email me to set up a virtual appointment

Course Classroom: LA 3329 (Archaeology and Forensic Science Laboratory)

Class Meeting Time: MW - 2:00 - 3:15 pm (section 001) and 3:30 - 4:45 pm (section 002)

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#### **Course Overview**

Archaeologists and crime scene investigators face the similar task of documenting data in its entirety before permanently removing it from its temporal, geographical, and spatial contexts. This course emphasizes the similarities in the documentation and recovery procedures and provides students with practical experience in crime scene documentation. The interdisciplinary aspects of the forensic sciences are demonstrated through a variety of lecture topics including evidence law, expert testimony, crime scene analysis, death investigations, latent prints, trace evidence, firearms and tool marks, impression evidence, forensic anthropology and archaeology, and forensic computer examinations.

#### **Learning Outcomes**

Among other things, by the end of the semester students will be able to:

- Demonstrate a basic understanding of Frye, Daubert, and the Federal Rules of Evidence as they pertain to the admissibility of scientific evidence.
- Evaluate items of evidence and select appropriate latent print processing techniques.
- Identify basic fingerprint patterns and the minutiae that constitute their individuality.
- Articulate the basic packaging techniques for different types of evidence including glass, soil, hair, accelerants, latent prints, and human tissue.
- Apply Locard's Theory of Exchange and the concept of class and individual characteristics to the daily routine of forensic crime analysis.
- Demonstrate an understanding of the operation of firearms and identify different types of firearms, ammunition, and ammunition components.
- Articulate the role of the forensic anthropologist and the forensic archaeologist in forensic investigations.

#### **Required Reading Material**

Kollmann, Dana D.

2016 **Forensic Science: Introduction to the Crime Scene.** Kendall Hunt: Dubuque, IA.

## **Recommended Reading Material**

Payne-James, Jason, Richard Jones, Steven Karch, and John Manlove 2012 **Simpson's Forensic Medicine**, 13<sup>th</sup> Edition. CRC Press: Boca Raton, Florida.

Article readings are listed at the end of this syllabus. They are available electronically on the Cooklibrary.towson.edu site. Additional online reading material may be assigned in class.

## **Grading**

35% Mid-term examination

30% Final examination

20% Journal questions (10 points x 2 journals=20%)

15% Quizzes (7.5 points x 2 quizzes = 15%)

The grading scale is as follows:

<b>Grade</b>	Percentage Range
A	93%+
A-	90-92.99%
B+	87-89.99%
В	83-86.99%
B-	80-82.99%
C+	77-79.99%
C	70-76.99%
D	60-69.99%
F	0-59.99%

#### **Mid-Term Exam**

The midterm exam will test your knowledge and understanding of the assigned readings and lecture topics covered during the first half (approximated) of the semester. These topics may include evidence law, expert witness testimony, death investigations, crime scene documentation, fingerprints, and trace evidence. The format of the exam may include true-false, multiple choice, fill-in the blank, short-answer, and photo identification questions. You may also be tested on assigned readings, including textbook chapters and the articles listed at the end of this syllabus.

#### Final Exam

The final exam will test your knowledge and understanding of the assigned readings and lecture topics covered in the second half (approximated) of the semester. These topics may include firearms and toolmark analyses, range of fire determinations, impression evidence, bloodstain pattern analysis, forensic anthropology and archaeology, and forensic odontology. The format of the exam is the same as that described for the mid-term. You are also responsible for assigned readings. The final is not necessarily cumulative, although testable material builds upon information presented earlier in the semester.

## Quizzes

Two quizzes are administered throughout the semester; one before and one after the midterm. The quizzes test your understanding of lecture material and may contain true/false, fill in the blank, and short answer questions. The quizzes test only that material presented since the previous quiz or exam. The quizzes are not cumulative and do not contain questions from assigned readings. Quizzes are administered at the beginning of class. Latecomers will not be allowed to extra time to complete the quiz.

#### **Journal Questions**

I will post two journal questions to the course blackboard site.; one before and one after the midterm. Your responses should be well thought out demonstrate a strong comprehension of course material. You are to refer to outside sources in the development of your responses and citations, in appropriate format, are *absolutely* required. These should be formally written, proofread responses using appropriate grammar. All parts of the questions must be addressed. Answers that are only a few sentences are entirely insufficient. I will post the questions by noon on Wednesday and your responses are due by 5pm Friday. Late responses will not be accepted.

## Article Readings

The first five *Journal of Forensic Science* readings will be tested on the midterm exam, the second five readings will be tested on the final exam. Articles are available electronically on the Cooklibrary.towson.edu website. If you have trouble accessing the articles electronically, do not email me. Instead, contact the library. Remember, if you are accessing the library from an off-campus location, you must first sign into the library using your username and ID before you will be able to access resources.

#### Attendance

Class attendance is not mandatory; however, a significant amount of material will be missed for every class that you fail to attend. You are responsible for obtaining all information that you miss. I will not email copies of class notes, details of lectures, Powerpoints, or instructions for assignments or papers. Do not come to my office hours and ask me to go over what was missed. You must get this information from a classmate.

# <u>Missed Exams/Quizzes/Assignments due to Religious Holidays, University Sponsored Events or Sporting Occasions</u>

Religious absences are excused, but prior notification is required at least ONE WEEK in advance of your leave. Failure to provide advanced notification will result in an automatic score of "0" for quizzes, tests and assignments. Submission of assignments after an absence will not be accepted. Assignments must be submitted prior to the student's absence. You may not take quizzes or exams earlier than the scheduled date.

## **Examination/Quiz Make-Up Policy**

If you are experiencing an emergency or are ill and cannot make an exam or quiz, no make-up will be given *without* a notification from the Office of the Vice President for Student Affairs. I understand that unexpected events occur, such as a flat tire on the way to school. In cases such as these, I require proof of the emergent event, such as a AAA receipt. If you miss a quiz or an exam, you MAY NOT be present when we review the answers. Failure to comply with this will prohibit you from taking a make-up. If administered, your make-up quiz/exam will be different from that administered to your classmates and may be entirely essay. Scheduled doctor's appointments, tests, or procedures do not exempt you from a quiz or exam. If a student fails to appear for a scheduled make-up test, the grade of "0" will be recorded.

## **Assignment Make-Up Policy**

No assignments or extra credit will be accepted late given that you know the due dates from the first day of the semester. Failure to submit an assignment on the specified due date, at the specified time will result in a score of "0." Handwritten submissions are unacceptable and will result in the score of "0." Due to computer virus threats, I will NOT open any documents that you send via email. I will not print your assignments nor will I staple them. I will not pre-read your submissions. The majority of your work will be submitted through Blackboard, so this should not present a problem.

#### **Communications**

I will try to respond to all email communications within 24 hours. Please keep in mind that emails sent after hours, over weekends, or while I am out of town (i.e., a conference) may have a longer response period. You must communicate using your Towson email account and you are expected to check your account regularly for pertinent information pertaining to class. Please check the syllabus for the answer to your question prior to contacting me.

## **End of Semester Responsibilities**

Should there be a discrepancy in the final grade that I have awarded you and the grade that you feel you should have received, you will need to submit all graded assignments and exams to me for follow-up review. Without these documents, a change in your awarded grade will not be considered.

#### **Extra Credit**

I will add two points to your final grade if you go on a ride along with a police officer, complete a living will, attend an open wet lab at Anatomy Gifts Registry (AGR), complete firearms assignments online, and/or fire a weapon <u>at a shooting range</u> during the current semester. I may mention other opportunities in class and you may approach me with other possibilities. You may earn no more than 6 possible extra credit points. You are responsible for making all arrangements. I will require proof of the ride along (the officer's business card and a write-up of your experience) range (the receipt and a write up of your experience), and AGR (certificate of completion and a write up of your experience). The living will must be notarized. Handwritten work will not be accepted.

For the online firearms assignment, log into <a href="www.firearmsid.com">www.firearmsid.com</a>. On the left side of the screen, click on "classroom" then "student login." The login key is C5794Anth357001Spring2021 (for section 001) and C5794Anth357002Spring2021 (for section 002). Type your full name in the name box and click "accept." This will take you to a new screen. Your assignments can be found under the "Virtual Comparison Microscope" tab, under Bullet Identification exercises (4 tests) and Cartridge Case Identification exercise (5 tests). Complete tests under either or both categories until you receive a total of 4 certificates. This exercise is time consuming, so start early. You will not understand the exercise unless you complete the tutorial. <a href="https://www.firearmsid.com">NOTE: As of January, this site was being updated and it is unknown when it will be fully back online. It may be that this assignment is unavailable this semester.

All extra credit documentation is to be sent to me on the date of the last class. I will not receive extra credit earlier. The extra credit must be completed during the current semester (a ride along completed for another class during a previous semester will not count). Experiences obtained as part of a job or internship will not count. Students charged or under investigation for an academic integrity violation may not submit extra credit assignments.

#### Blackboard

Some course material is posted on the Blackboard site. The majority of the Powerpoints are not posted for reasons of confidentiality. You are responsible for checking the Blackboard site and your Towson email account regularly for course announcements.

#### **Letters of Recommendation**

I do not take recommendation requests lightly, as they are a reflection of myself, the department, and the University. Consequently, I have very specific requirements that must be met before I will provide a favorable recommendation. These include having completed a minimum of two classes with me and passing with at least the grade of B. For written recommendations, I require a description of the program/job to which you are applying, your degree progress report, your career aspirations, how the programs to which you are applying will help you meet your career goals. You must waive your right to review the letter. I will only mail references to schools - meaning I will not give them to you. I require one month's notice for letters.

## **Disability and Support Services**

Students who have, or suspect that they might have, a disability should seek services through Disability Support Services. Students must be registered with DSS and receive written authorization to obtain disability-related accommodations. The office is located at 7720 York Road, 410-704-2638. Please note that if you take your exam at DSS, you will not have the opportunity to ask questions during the exam,

see potential images in color (as I will not email DSS my exams), or have the opportunity to see items that are passed around during the exam (you will have to answer the relevant questions using drawing or diagrams).

## **Inclement Weather/ Canceled Classes**

It is possible that classes would be canceled at the last-minute due to bad weather, court obligations, illness, etc. In the event that class is cancelled, homework assignments, quizzes, and exams will be proctored or scheduled for the next class meeting. In the event class is cancelled, notification will be posted on Blackboard and sent to your Towson email account.

## National Disaster Medical System/ Disaster Mortuary Operational Response Team (DMORT)

I am a member of federal team that is deployed in the event of a mass fatality situation. As stated on the Public Health Emergency website (<a href="www.phe.gov">www.phe.gov</a>; accessed 1/19/2013), "The National Response Framework (NRF) utilizes the National Disaster Medical System (NDMS), as part of the Department of Health & Human Services, Assistant Secretary for Preparedness and Response (ASPR), Office of Preparedness and Operations (OPEO), under Emergency Support Function #8 (ESF #8), Health and Medical Care, to provide victim identification and mortuary services." We are deployed in a manner similar to the National Guard and are protected under the Uniformed Services Employment and Reemployment Rights Act (USERRA). In the event of a deployment, I will likely have little to no notice and will be absent for a period of time not to exceed two weeks. If this happens during your semester with me, I will likely have some lecture material posted online, arrange guest speakers, have my AULE show relevant DVD's and disseminate a series of critical thinking assignments. Any quizzes or exams may be proctored or possibly postponed until my return.

#### **Academic Integrity**

The faculty of the Department of Sociology, Anthropology & Criminal Justice expects students to demonstrate academic integrity at all times. Academic dishonesty will not be tolerated in any class. Academic dishonesty includes, but is not limited to, any form of cheating or unapproved help on an exam or academic exercise, copying someone else's written work without citation, presenting fabricated information as legitimate, any unauthorized collaboration among students, or assisting someone to cheat in any way. Penalties for academic dishonesty are determined by the individual faculty member. The minimum penalty in for academic dishonesty in this class is receiving a zero on the assignment; however, this penalty is typically reserved for failing to cite sources (yes, this is an academic integrity violation). Deliberate efforts to cheat on quizzes and exams will result in a failing grade for the course. Students who are charged with academic dishonesty must remain enrolled in the course and cannot withdraw. Instructors will file a report of academic dishonesty with the Office of the Student Conduct and Civility Education, the Dean of the College of Liberal Arts, and to the Chair's Office in the department. For more information on academic integrity, see the TU Student Academic Integrity Policy (http://catalog.towson.edu/undergraduate/appendices/appendix-f-code-student-conduct/) and the College of Liberal Arts' Academic Integrity and Appeals Information, (https://www.towson.edu/cla/resources/academic.html).

We also encourage students to make use of campus resources to learn more about academic integrity and how to avoid academic dishonesty, such as the resources provided by Cook Library and the Writing Center (<a href="http://www.towson.edu/writingcenter">http://www.towson.edu/writingcenter</a>).

#### **Intellectual Property**

I do not share my course material. The Powerpoints, the lectures, exams, quizzes, journals, etc. are my intellectual property and students do not have permission to share these materials with anyone, enrolled or not. Should my material appear on online academic help sites, which I

regularly check, I will go to lengths to identify the poster, as this is a violation of academic integrity.

## **Emergency Statement**

In the event of a University-wide emergency, course requirements deadlines and grading schemes are subject to changes that may include alternative delivery methods, alternative methods of interaction with the instructor, class materials, and/or classmates, a revised attendance policy, and a revised semester calendar and/or grading scheme. In the case of a University-wide emergency, please refer to the following about changes in this course:

- Course Blackboard Page
- Email me at dkollmann@towson.edu
- Call me at (410-704-2350)
- Email Dianne Franklin (DFranklin@towson.edu) or call her at 410-704-2852.
- For general information about any emergency situation, please refer to <a href="www.towson.edu">www.towson.edu</a>, call 410-704-2000, or utilize the TU Text Alert System: This is a service designed to alert the Towson University community via text messages to cell phones when situations arise on campus that affect the ability of the campus to function normally. Sign up:

http://www.towson.edu/adminfinance/facilities/police/campusemergency/

#### FIRST EXAM ARTICLE READINGS

Prahlow, Joseph, Zuhha Ashraf, Natalie Plaza, Christopher Rogers, Pamela Ferreira, David Fowler, Melissa Blessing, Dwayne Wolf, Michael Graham, Kelly Sandberg, Theodore Brown,

Title: CASE REPORT: Elevator-Related Deaths

**Source:** Journal of Forensic Sciences 65, no. 3 (2020): 823-832

Kaliszan, Michal, Ludmila Danilowicz-Szymanowicz, Maciej Kempa, Ewa Tomczak, Marta krzyzanowska, Zbigniew Jankowski and Grzegorz Raczak

**Title:** CASE REPORT: Postmortem Analysis of Electrogram Records from an Implantable Cardioverter-Defibrillator (ICD) in the Reconstruction of a Road Traffic Accident..

**Source:** Journal of Forensic Sciences 64, no. 5 (2019): 268-270.

<u>Lauerma, Hannu</u>; <u>Voutilainen, Jukka</u>; <u>Tuominen, Tiina</u>

**Title:** CASE REPORT: Matricide and Two Sexual Femicides by a Male Strangler with a Transgender Sadomasochistic Identity.

**Source:** Journal of Forensic Sciences 55, no. 2 (2010): 549 - 550.

Fan, Chen, Yi Ye, Bo Jin, Bo Yi, Qingtao Wei, and Linchuan Liao

Title: CASE REPORT: Homicidal Paraquat Poisoning.

**Source:** Journal of Forensic Sciences 64, no. 3 (2019): 941-945.

Pettigrew, Matthew

**Title:** CASE REPORT: Corpse Dismemberment and a Necrofetishist.

**Source:** Journal of Forensic Sciences 64, no. 3 (2019): 934-937.

## SECOND EXAM ARTICLE READINGS

Alunni, Veronique, Coraline Cabusat-Mailliet, and Gerald Quatrehomme

**Title:** CASE REPORT: A Case of Multiple Self-Inflicted Stab Wounds of the Neck Captured on Surveillance Video.

**Source:** Journal of Forensic Sciences 65 no.4 (2020): 1368 – 13770

Raymond, Sophie, Anne-Sophie Leger and Ivan Gasman

**Title:** CASE REPORT: The Psychopathological Profile of Cannibalism: A Review of Five

**Source:** Journal of Forensic Sciences 64, no. 5 (2019): 1568-1573.

Colard, Thomas , Yann Delannoy, Stephan Naji, Didier Gosset, Kristen Hartnett and Anne Bécart

Title: CASE REPORT: Specific Patterns of Canine Scavenging in Indoor Settings.

**Source:** Journal of Forensic Sciences 60, no. 2 (2015): 495 – 500.

Modelli, Manoel E. S., Maciel S. Rodrigues, Bruno Z. M. Castro, Rodrigo S. Corrêa

Title: CASE REPORT: Self-Induced Fatal Air Embolism: Accidental Autoerotic Death or Suicide?

Source: Journal of Forensic Sciences 58, no. 2 (2013): 261 - 261.

Heath, Karen J., Allan D. Cala, and Roger W. Byard.

Title: CASE REPORT: Metal Railing Fences and Accidental Death.

**Source:** Journal of Forensic Sciences 63, no. 3 (2017): 972-975.

#### PROPOSED 2021 SPRING LECTURE SCHEDULE (subject to change)

R – Reading; RR – Recommended Reading V - Video; I - Image Link; OYO - On Your Own

WEEK 1 (January25/27) Introduction to the Forensic Sciences/Legal Matters/Evidence Law

R - Kollmann, Chapter 1

R - <a href="http://www.thefreelibrary.com/Dead+reckoning%3a+wildlife+super+sleuths+use">http://www.thefreelibrary.com/Dead+reckoning%3a+wildlife+super+sleuths+use</a> +sophisticated+forensics+to...-a016787931

RR - Payne-James, et al., Chapter 1

OYO - The 11 ways evidence can inform police investigations

V – Behind the Yellow Line https://www.youtube.com/watch?v=jcypaqcKesU

WEEK 2 (February 1/3) Legal Matters/Evidence Law

R - Kollmann, Chapter 2

RR - Payne-James, et al., Chapter 2

OYO – Exceptions to the Fruits of the Poisonous Tree Doctrine

WEEK 3 (February 8/10) Legal Matters/Evidence Law

R - Kollmann, Chapter 2

RR - Payne-James, et al., Chapter 3

WEEK 4 (February 15/17) Forensic Psychology

R - Kollmann, Chapter 3

R - Dangerous Minds: Criminal Profiling Made Easy

http://www.newyorker.com/magazine/2007/11/12/dangerous-minds

RR – Payne-James, et al., Chapter

V - Death Detectives: L.A. County Coroner's Office

OYO –1.) The difference between forensic psychology and criminal profiling (see the duties of a forensic psychologist at the beginning of the chapter), 2.) The three approaches to criminal profiling (Historical/Common Characteristics/Crime Scene and the pros and cons of each), 3.) The list and the table showing crime scene characteristics.

Journal Question #1 posted on the  $17^{th}$  and due on the 19th Quiz 1 on 2/17

WEEK 5 (February 22/24) Inattentional Blindness/Crime Scene Documentation

R - Kollmann, Chapters 4, 5

OYO – 1.) Difference between primary and secondary scenes, 2.) See list of data that must be in notes, 3.) Definitions of overall, midrange and close up photographs, 4.) Planview, profile, exploded sketches 5.) Method of triangulation mapping.

R - Kollmann, Chapter 5

RR - Payne-James, et al., Chapters 4, 5, 6

OYO - Google: The New Detectives: Season 8 – Episode 18, "Coroner's Investigation."

## WEEK 7 (March 8/10) Death Investigations

RR – Payne-James, et al., Chapters 7, 8, 9, 11

## WEEK 8 (March 15/17) **SPRING BREAK**

WEEK 9 (March 22/24) Forensic Archaeology/Anthropology

R – Kollmann, Chapters 6 and 7

RR – Payne-James, et al., Chapter 12

March 22 - Midterm

WEEK 10 (March 29/31) Forensic Archaeology/Anthropology

R – Kollmann, Chapter 7

RR – Payne-James, et al., Chapter 13

## WEEK 11 (April 5/7) Forensic Archaeology/Anthropology/Fingerprints

R - Kollmann, Chapter 8

RR – Payne-James, et al., Chapter 14

R - Rebutting the "No Fingerprint" Defense by John P. Nielson

http://www.clpex.com/Articles/TheDetail/1-99/TheDetail70.htm,

OYO – Google YouTube Video, "Latent Hit of the Year, 2014." (12:16 min)

## WEEK 12 (April 12/14) Impression Evidence (Firearms & Toolmarks)

R - Kollmann, Chapter 9

R - Payne-James, et al., Chapter 10

These may be helpful in studying, but serve only as supplementary material

http://library.med.utah.edu/WebPath/TUTORIAL/GUNS/GUNANAT.html

http://library.med.utah.edu/WebPath/TUTORIAL/GUNS/GUNBLST.html

http://library.med.utah.edu/WebPath/TUTORIAL/GUNS/GUNGSR.html

http://library.med.utah.edu/WebPath/TUTORIAL/GUNS/GUNINJ.html

#### WEEK 13 (April 19/21) Impression Evidence (Firearms & Toolmarks)

R – Kollmann, Chapter 9

RR – Payne-James, et al., Chapter 15

OYO - Google Forensic Files: Season 10 - Episode 11, "Strong Impressions."

## WEEK 14 (April 26/28) Impression Evidence (Firearms & Toolmarks)

R – Kollmann, Chapter 9

RR – Payne-James, et al., Chapter 16, 17

OYO – 1.) Serial Number Restoration (Electrochemical etching, Magnaflux, and Ultrasound), 2.)

Components of a shoe and tire examination 3.) Google YouTube video "Inside the Crime Lab:

Forearms Tool Mark Unit," (3:21 min) 4.) Google YouTube video, "Ballistic Identification Technology" (4:23 min).

Journal Question #2 posted on the 28th and due on the 30th

**Quiz 2 on 4/28** 

WEEK 15 (May 3/5) Trace Evidence (Hairs, Fibers, Glass, Paint, Soil)

R – Kollmann, Chapter 10 RR – Payne-James, et al., Chapter 17 OYO – Google Forensic Files: Season 7 – Episode 3, "Reel Danger"

WEEK 16 (May 10/12) Documents and Handwriting R - Kollmann, Chapters 11 & 12 OYO – Who was Kurt Bloodsworth?

## **FINAL EXAM SCHEDULE:**

 $SECTION\ 001\ (MEETS\ M/W\ 2:00-3:15\ PM) - EXAM:\ WEDNESDAY,\ 5/12,\ 3:00-5:00\ PM.$ 

SECTION 002 (MEETS M/W 3:30 – 3:45 PM) – EXAM: MONDAY, 5/17, 3:00 – 5:00 PM.