



INTRODUCTION TO FORENSIC SCIENCES (ANTH 221)

Term: *Summer 2026*

Professor: Siobhan Summers, PhD

Teaching Assistant: TBD

Pronouns: she/her/hers

Email: ssummers@umd.edu

Office Hours: By appointment

Credits: 3

Course Dates: July 13, 2026 - July 31, 2026

Course Times: Monday - Friday, 9:30 AM - 12:30 PM

Classroom: Woods Hall (WDS) 0124B

Course Description

Forensic science is a broad subject encompassing scientific and technical endeavors with legal applications. The role of forensic scientists can be broadly defined in terms of skills, technology, experience, research, and contributions to the literature. Through lectures and hands-on activities, this course will provide a brief history of forensic sciences, an introduction to some common forensic techniques used, and a demonstration of some of the applications of forensic sciences. This is not a training course, but a survey course—with a focus on forensic anthropology—designed to provide exposure to the kinds of forensic scientific knowledge and techniques applied to medicolegal investigations of death and other crimes.

Attendance to all lectures is mandatory since much of the material included in the examinations will be based on the class lectures, and in-class activities will not be repeated.

Learning Outcomes

After successfully completing this course you will be able to:

- Define the role of forensic sciences in medicolegal contexts.
- Differentiate the branches of forensic science and describe their applications.
- Apply the scientific method both broadly and specifically to medicolegal contexts.
- Describe evidence collection and examination processes.
- Evaluate current debates surrounding the ethics of forensic sciences.

Required Resources

Course Website: The course website can be accessed at elms.umd.edu. Course announcements will be shared via ELMS messaging. Ensure that your email and announcement notifications are enabled in ELMS so you do not miss any messages. You are responsible for checking your email and Canvas/ELMS inbox with regular frequency.

University Email: All email communications should be sent using your University of Maryland TERPmail account. While I will do my best to respond to emails within 24 hours, response time may be longer for emails sent outside of normal business hours (Monday - Friday, 9:00 AM - 5:00 PM).

Required Text: You will need to rent or purchase the following book for this course.

McDermid, V. (2014). *Forensics: What bugs, burns, prints, DNA, and more tell us about crime*. Grove Press.

Total Estimated costs of required course materials: \$6.88 - \$18.00, depending on format

Grading Structure

This course will be graded on the basis of 300 points.

Attendance/Participation & Engagement: Class attendance, participation, and engagement is worth 50 points. This includes active participation in in-class activities and class discussions. You will lose points for missing class, or for unauthorized use of technology (see below).

In-class Activities: In-class exercises are part of the class and are not optional. Each student is required to submit a written summary/report of five exercises (instructions will be provided in class), worth 20 points each. The write-ups are due the following class, and no exceptions will be made.

Exams: There will be three examinations, each worth 50 points. Exams will be administered at the end of each week, on Friday.

Assignment	Points	Percentage %
Attendance/Participation & Engagement	50 pts	~17%
In-class Activities	100 pts	~33%
Exams	150 pts	50%
Total	300 pts	100%

All grades will be posted on the course ELMS page. If you would like to review any of your grades (including the exams), or have questions about how something was scored, please email me to schedule a time for us to meet and discuss.

Under most conditions, no makeup examinations will be provided. Incomplete (I) grades will be given only if a student has already completed at least 75% of the coursework and has a legitimate excuse for not finishing the work on time. Late work will not be accepted for course credit so please plan to have it submitted by scheduled deadline.

Final letter grades are assigned based on the percentage of total assessment points earned.

Grading Scale:

A	≥ 95.00%	B	83.00-86.99%	C	73.00-76.99%	D	63.00-66.99%
A-	90.00-94.99%	B-	80.00-82.99%	C-	70.00-72.99%	D-	60.00-62.99%
B+	87.00-89.99%	C+	77.00-79.99%	D+	67.00-69.99%	F	< 60.00%

Policies and Guidelines

Academic Integrity

The University of Maryland has a nationally recognized Code of Academic Integrity, administered by the Student Honor Council. This code sets standards for academic integrity for all UMD undergraduate and graduate students. As a student, you are responsible for upholding these standards for this course. It is important for you to be aware of the consequences of cheating, fabrication, and plagiarism. Violations of the Code will be reported directly to the Terp Young Scholars Program.

The University's Code of Academic Integrity is designed to ensure that the principles of academic honesty and integrity are upheld. In accordance with this code, the University of Maryland does not tolerate academic dishonesty. Please ensure that you fully understand this code and its implications because all acts of academic dishonesty will be dealt with in accordance with the provisions of this code. All students are expected to adhere to this Code. It is your responsibility to read it and know what it says. As future professionals, your commitment to high ethical standards and honesty begins with your time at the University of Maryland.

For more information on the Code of Academic Integrity or the Student Honor Council, please visit <http://www.shc.umd.edu>.

To exhibit your commitment to academic integrity, remember to sign the following pledge on each exam or assignment: *"I pledge, on my honor, that I have not given or received any unauthorized assistance on this exam/assignment."*

Technology

Students may not use their electronic devices during class time except for class-related activities such as note taking. When not in use for class-related activities, electronic devices should be turned off or silenced during class time. Students who do not adhere to this policy will lose participation and engagement points for each infraction.

Video or Audio Recording

Video or audio recording of class sessions, activities, or discussions is prohibited without advance permission from the professor.

Accessibility and Disability Services

Students with accommodations should communicate with me by the second class or as soon as possible so that we can work together and make your participation in this course a rewarding one. All accommodation requests should go through the University of Maryland's Accessibility & Disability Service office, and a letter be provided to the instructor. If you are struggling in your classes for any reason, I urge you to contact this office as soon as possible to access the support to help you succeed. The Young Terp Scholars Program coordinators are also available to assist with any questions you may have.

The University of Maryland is committed to creating and maintaining a welcoming and inclusive educational, working, and living environment for people of all abilities. The [Accessibility & Disability Service \(ADS\)](#) provides reasonable accommodations to qualified individuals to provide equal access to services, programs and activities. ADS cannot assist retroactively, so it is generally best to request accommodations several weeks before the semester begins or as soon as a disability becomes known. For assistance in obtaining an accommodation, contact Accessibility and Disability Service at 301-314-7682, or email them at adsfrontdesk@umd.edu.

Additional Resources

Terp Young Scholars

The Terp Young Scholars program offers a wide range of resources to help facilitate your success in the program. Terp Young Scholars staff are available daily (Monday - Friday, 8:00 AM - 5:00 PM) in Jimenez Hall (Room: JMZ 1104). Students and parents/guardians may also email inquiries to tys@umd.edu to reach a Terp Young Scholars staff member during the program.

Emergency Preparedness

Emergencies on campus can happen at any time. To prepare, visit prepare.umd.edu or use the emergency symbol in the UMD App to review information. Resources for persons with disabilities are available on the [emergency preparedness page of the ADA Coordinator's website](#).

Student Resources and Services

Taking personal responsibility for your own learning means acknowledging when your performance does not match your goals and doing something about it. I hope you will come talk to me so that I can help you find the right approach to success in this course, and I encourage you to visit [UMD's Student Academic Support Services website](#) to learn more about the wide range of campus resources available to you.

There are a wide range of resources to support you with whatever you might need. Visit [UMD's Student Resources and Services website](#), [UMD's Counseling Center](#), and [UMD's Division of Student Affairs website](#) for more information.

Notice of Mandatory Reporting

As a faculty member, I am designated as a "Responsible University Employee," and I must report all disclosures of sexual assault, sexual harassment, interpersonal violence, and stalking to UMD's Title IX Coordinator per University Policy on Sexual Harassment and Other Sexual Misconduct.

If you wish to speak with someone confidentially, please contact one of UMD's confidential resources, such as [CARE to Stop Violence](#) (located on the Ground Floor of the Health Center) at 301-741-3442 or the [Counseling Center](#) (located at the Shoemaker Building) at 301-314-7651.

You may also seek assistance or supportive measures from UMD's Title IX Coordinator, Angela Nastase, by calling 301-405-1142, or emailing titleIXcoordinator@umd.edu.

To view further information on the above, please visit the [Office of Civil Rights and Sexual Misconduct](#).

Course Evaluation

Please submit a course evaluation through Student Feedback on Course Experiences in order to help faculty and administrators improve teaching and learning at Maryland. All information submitted to Course Experiences is confidential. Campus will notify you when Student Feedback on Course Experiences is open for you to complete your evaluations at the end of the semester. Please go directly to the [Student Feedback on Course Experiences](#) to complete your evaluations. You may access the evaluation reports for courses for which 70% or more students submitted their evaluations.

Course Outline

Date	Topic	Reading
July 13	<ul style="list-style-type: none"> - Introductions and course overview - Introduction to forensic sciences: What is a forensic expert, what kind of training is required, and when is a forensic expert needed? - History of forensic anthropology. 	
July 14	<ul style="list-style-type: none"> - Medicolegal aspects of death - Elements of forensic evidence analysis: the scientific method and statistics - In-class activity: Anthropometrics and statistical analysis 	Preface
July 15	<ul style="list-style-type: none"> - Criminology and Criminal Justice - Archaeological recovery vs. crime scene investigation - Taphonomy - Evidence processing: Laboratory protocols and procedures 	Chapter 1
July 16	<ul style="list-style-type: none"> - Fine art of baloney detection: How to make a good argument and detect a bad one - Video: Infamous Colorado Cannibal - In-class activity: Interviews for descriptive identification of missing persons 	Chapter 8
July 17	<ul style="list-style-type: none"> - Exam 1 - Identity and personal identification - Human skeletal biology: Basics - In-class activity: Osteological identification 	
July 20	<ul style="list-style-type: none"> - Human skeletal biology: Analytical techniques (age, sex, stature, pathology) - Video: Music Hall Bones - In-class activity: Estimation of age at death and sex; identifying pathology 	Chapter 7
July 21	<ul style="list-style-type: none"> - Guest speaker: TBD - Ancestry and race 	
July 22	<ul style="list-style-type: none"> - DNA and population genetics - DNA and inheritance 	
July 23	<ul style="list-style-type: none"> - Exam 2 - Forensic evidence: Biological fluids, impression patterns and markings, hair and fibers 	
July 24	<ul style="list-style-type: none"> - Forensic evidence: Questioned documents - In-class activity: Handwriting comparison 	Chapter 10
July 27	<ul style="list-style-type: none"> - Forensic evidence: Fingerprints - In-class activity: Fingerprint scoring 	Chapter 6
July 28	<ul style="list-style-type: none"> - Human skeletal biology: Trauma identification - In-class Activity: Skeletal trauma analysis - Video: Romanovs 	
July 29	<ul style="list-style-type: none"> - Mass disasters and multiple fatality incidents - Video: The Hardin Cemetery 	

July 30	<ul style="list-style-type: none"> - Testimony - Human rights and forensic science - Video: Mass Graves of Guatemala 	Chapter 12
July 31	<ul style="list-style-type: none"> - Exam 3 - Ethics in forensic sciences 	

Note: This is a tentative schedule, and subject to change as necessary – monitor the course ELMS page for current deadlines. In the unlikely event of a prolonged university closing, or an extended absence from the university, adjustments to the course schedule, deadlines, and assignments will be made based on the duration of the closing and the specific dates missed.