

Course Syllabus

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ASM 275: Forensic Anthropology

Course and Faculty Information

Course Description: Discusses the role of the forensic anthropologist in medico-legal investigations involving skeletonized human remains. Includes forensic recovery techniques, identification of decedents through skeletal and dental analysis, and reconstructing the crime scene through analysis of trauma patterns. Covers the legal aspects of forensic practice and considers historical case studies and the contributions forensic anthropologists make to mass disaster investigations and human rights abuses.

Credits: 4 Credit Hours, this class counts toward the CLAS Science and Society requirement as well as an SB or SG general studies designation.

Prerequisites: None

Instructors: Andrew Seidel, PhD

Christopher Stojanowski, PhD

Contact Info: acseidel@asu.edu (<mailto:acseidel@asu.edu>)

Dr. Seidel will be your primary contact for this course

Office Hours: By appointment

Uploading exams, exam answers, lab/homework assignments, and notes based on lectures is a violation of university policy and grounds for a grade of XE. Please do not upload any materials from this class to third-party websites. They will be stricken with a copyright violation claim and removed. Thanks.

Course Learning Outcomes

At the completion of this course, students will be able to:

1. Identify the different scales of data used in science and measurement
2. Identify sources of error in forensic science
3. Distinguish accuracy and precision and apply these concepts to forensic data sets
4. Visually identify the bones of the human skeleton and describe basic anatomical terminology
5. Describe the role of the forensic anthropologist in crime scene investigations
6. Outline the methods of forensic body recovery
7. Estimate time since death using multiproxy indicators
8. Define the biological profile and visually assess skeletal criteria for the major components of the profile, which include age, sex, ancestry, and stature
9. Evaluate forensic methods of estimating the biological profile with respect to current rules of evidence and the Daubert standards
10. Document the sources of variation in the human skeleton and how they are useful in forensic casework
11. Describe the nuances surrounding ancestry assessment in forensic contexts, and in particular define "race" and debate whether or not the human species has racial characteristics
12. Differentiate the major types of trauma that impact bone based on visual indicators
13. Identify different types of postmortem body alterations, including natural and intentional
14. Describe the techniques used for establishing a positive identification
15. Debate the benefits and weaknesses of forensic odontology, in particular, bite mark analysis
16. Define the role of the forensic anthropologist in recreating activities at a crime scene
17. Differentiate cause and manner of death
18. Evaluate how forensic anthropologists contribute to human rights investigations
19. Debate the ethics of biohistorical research projects

Textbooks

Required

Introduction to Forensic Anthropology Lab Manual, Stojanowski, ISBN: 9781773303857, Publisher: Tophat.

<https://app.tophat.com/e/907558> (<https://app.tophat.com/e/907558>)

JOIN CODE: 907558

Note: this is a required purchase for this course because the labs are done online through the Tophat platform.

This book can also be purchased either directly through Tophat or from the ASU bookstore. If you purchase from the ASU bookstore, they will provide you with a code to enter online at tophat.com. This code typically arrives as a separate email from 1230txt@gmail.com, (<mailto:1230txt@gmail.com>), so please watch your Spam folders.

NOTE: This is an online lab manual/text. Between this and the lectures you will learn everything you need to do well in this class.

Recommended

Some students may prefer a hard copy of a printed textbook. I do not assign a text in this class because the relevant content is covered in the lectures and online manual listed above. However, I have provided a list of optional texts and placed copies of some of these on reserve in Hayden Library. There are many forensic anthropology texts on the market. Most are very similar in content and cover the same material as provided in the lectures. If you feel you need a full written text to learn the material please consider these in the order they are presented below. For each of the six optional texts listed the table below provides which chapters correspond with my lecture modules.

1. Byers, Steven. Introduction to Forensic Anthropology, 4th edition. Routledge.
2. Christensen, Angi, Passalacqua, Nicholas and Eric Bartelink. Forensic Anthropology: Current Methods and Practice. Academic Press.
3. Langley, Natalie and MariaTeresa Tersigni-Tarrant. Forensic Anthropology. A Comprehensive Introduction, 2nd edition. CRC Press.
4. Pickering, Robert and David Bachman. The Use of Forensic Anthropology. CRC Press.
5. Komar, Debra and Jane Buikstra. Forensic Anthropology, Contemporary Theory and Practice. Oxford University Press.
6. Klepinger, Linda. Fundamentals of Forensic Anthropology. Wiley-Liss.

Module	Topic	Source Books and Chapters					
		1	2	3	4	5	6
2	Goals of forensic anthropology	1	1	1	1,2,3	1	1,2
3	Basic bone biology	2	2	5	na	na	na
4	Human osteology	2	2	5	na	na	na
5	Forensic context 1	3	4	2	5	4	3
6	Forensic context 2 - medicolegal	3	4	2	na	2,4	11
7	Forensic archaeology	4	6	3	4	4	na
8	Time since death	5	5	15	6	7	10
9	Sex estimation	8	8	8	5	5	4
10	Subadult age estimation	9	10	10	5	5	5
11	Adult age estimation	9	10	10	5	5	5
12	Stature estimation	10	11	11	5	5	7
13	Ancestry	7	9	8, 14	5	5	6
14	Basics of trauma analysis	11	13	13	8	6	9
15	Projectile trauma	12	13	13	8	6	9
16	Blunt force trauma	13	13	13	8	6	9
17	Sharp force trauma	14	13	13	8	6	9
18	Taphonomy	16	4	2, 18	8	7	10
19	Individuation - pathology	15	12	12	5	8	na
20	Individuation - MSM	15	12	16	5	8	8
21	Individuation - Misc.	17,18	12	16	5	8	na
22	Forensic odontology	18	na	16	na	8	na
23	Facial reconstruction	17	14	16	7	8	na
24	Human rights	na	15	17	na	9	na
25	Biohistory	na	na	na	na	10	na

Course Access

Your ASU courses can be accessed by both [my.asu.edu \(http://my.asu.edu\)](http://my.asu.edu) and [myasucourses.asu.edu \(http://myasucourses.asu.edu\)](http://myasucourses.asu.edu); bookmark both in the event that one site is down.

Computer Requirements

This is a fully online course; therefore, it requires a computer with internet access and the following technologies:

- Web browsers ([Chrome \(https://www.google.com/chrome/\)](https://www.google.com/chrome/), [Mozilla Firefox \(http://www.mozilla.org/en-US/firefox/new/\)](http://www.mozilla.org/en-US/firefox/new/), or [Safari \(http://www.apple.com/safari/\)](http://www.apple.com/safari/))
- [Adobe Acrobat Reader \(http://get.adobe.com/reader/\)](http://get.adobe.com/reader/) (free)
- Webcam, microphone, headset/earbuds, and speaker
- Microsoft Office ([Microsoft 365 is free \(https://myapps.asu.edu/app/microsoft-office-2016-home-usage\)](https://myapps.asu.edu/app/microsoft-office-2016-home-usage) for all currently-enrolled ASU students)
- Reliable broadband internet connection (DSL or cable) to stream videos.

Note: A smartphone, iPad, Chromebook, etc. will not be sufficient for completing your work in ASU Online courses. While you will be able to access course content with mobile devices, you must use a computer for all assignments, quizzes, and virtual labs.

Help

For technical support, use the Help icon in the black global navigation menu in your Canvas course or call the ASU Help Desk at +1-(855) 278-5080. Representatives are available to assist you 24 hours a day, 7 days a week.

Student Success

To be successful:

- check the course daily
- read announcements
- read and respond to course email messages as needed
- complete assignments by the due dates specified
- communicate regularly with your instructor and peers
- create a study and/or assignment schedule to stay on track
- access **ASU Online Student Resources** (<http://goto.asuonline.asu.edu/success/online-resources.html>)

Course Topics

Course Goals

The course curriculum is structured into four units each with a specific desired learning outcome. In general, the class is designed to briefly introduce forensic practice and provide guidance on the types of work available for forensic anthropologists. The four intellectual units are as follows:

1. **Human Osteology and Forensic Archaeology** – The student will gain a basic understanding of bone cellular and macroscopic biology and become familiar with the names of different bones in the human body; the student will also learn basics of forensic recovery in the field. A critical component of this unit is a nuanced understanding of the role of the forensic anthropologist in medico-legal contexts.
2. **Baseline Individuation and the Biological Profile** - Students will learn the variety of ways in which the list of potential matches for an unknown decedent is limited based on assessment of sex, age-at-death, stature, and ancestral affiliation. A critical component of this unit is a nuanced understanding of the complexities of forensic ancestral affiliation assessment.
3. **Crime Scene Analysis, Trauma and Taphonomy** – The student will be able to identify whether a traumatic injury was ante-, peri- or postmortem, whether the injury was caused by sharp force, blunt force, or projectile trauma, analyze characteristics of the weapon used, and reconstruct, where

possible, the crime scene. The student will discuss the role of trauma analysis in human rights investigations.

4. **Positive Identification, Human Rights, Biohistory** – The student will be exposed to the myriad idiosyncratic ways that positive identification of a decedent can occur, from the standard DNA fingerprinting technology to medical and dental records comparisons and facial reconstruction. The student will be able to discuss the role of the forensic anthropologist in public outreach initiatives through discussion of biohistorical forensic consultations and articulation with the military through POW/MIA recovery efforts.

Assignments

Activities used for instruction and assessment of learning include: online lectures; textbook and supplemental readings; videos and websites; online tests; and online labs.

COURSE REQUIREMENTS

The course grade will be based on 300 points earned as follows:

1. 4 unit exams (30 points each) - 120 points.
2. 16 online labs via Tophat textbook - 220 points total.

Greater weight is given to labs because the student has more control over the outcome of these exercises and is encouraged to seek the correct answer in an untimed evaluation of learning.

NOTE: There are 340 points that can be earned but you only need 300 for a 100% in the class. This leaves 40 points for missed exams, technology failures, etc.

Exams: There are four unit exams and none will be dropped. Exams will be objective in scope and include multiple choice and true/false questions based on the material covered in each section. There will also be a visual section to each exam that requires students to identify or interpret a series of images. Although each unit exam is not technically comprehensive, the course does build on previous work, and in this sense there is some continuity and overlap throughout the semester.

- Each exam will consist of thirty (30) randomly selected questions from a test bank. Each student will have 40 minutes to complete the exam. You should study for each exam as if this were an in-class exam. Exams are closed book and closed note and it is expected that you will not be using any sources to look up answers. Please note, there is no time for this anyway since you have a little more than 1 minute to answer each question.
- Please note the date for each exam. **Exams 1 and 2** will be due **November 13**; **Exams 3 and 4** will be due **December 4**. Exams are available on the first day of class and will **close at 10 pm on the due date**.
- Exams **MUST** be taken in order. There are no makeup exams given and no exam extensions unless you have made arrangements **BEFORE** the due date with the instructor.
- Grades will be automatically entered into Canvas.
- Be sure to complete all modules within each unit before taking the exam for that unit.

Online Labs: This class counts for SG credit and all students are required to complete the 16 online labs.

These are administered through an online lab manual published on the Tophat platform.

Lab 1 – Introduction to Data Types	Due Nov 10 at 10pm (complete after Lec 2)
Lab 2 – Rules of Evidence and Basic Research	Due Nov 10 at 10pm (complete after Lec 2)
Lab 3 – Basic Bone and Tooth Biology	Due Nov 10 at 10pm (complete after Lec 4)
Lab 4 – Human Osteology	Due Nov 10 at 10pm (complete after Lec 4)
Lab 5 - Postmortem Interval	Due Nov 10 at 10pm (complete after Lec 8)
Lab 6 – Sex Assessment, Skull	Due Nov 10 at 10pm (complete after Lec 9)
Lab 7 – Sex Assessment, Pelvis	Due Nov 10 at 10pm (complete after Lec 9)
Lab 8 – Sexual Dimorphism	Due Nov 10 at 10pm (complete after Lec 9)
Lab 9 – Estimating Age, Subadults	Due Nov 10 at 10pm (complete after Lec 10)
Lab 10 – Estimating Age, Adults	Due Nov 10 at 10pm (complete after Lec 11)
Lab 11 – Estimation of Ancestry	Due Nov 10 at 10pm (complete after Lec 13)
Lab 12 – Basic Trauma Analysis	Due Dec 1 at 10pm (complete after Lec 14)
Lab 13 – Projectile Trauma	Due Dec 1 at 10pm (complete after Lec 15)
Lab 14 – Blunt and Sharp Force Trauma	Due Dec 1 at 10pm (complete after Lec 17)
Lab 15 – Taphonomy and Dismemberment	Due Dec 1 at 10pm (complete after Lec 18)
Lab 16 – Capstone, Let's Work a Case	Due Dec 1 at 10pm (complete after Lec 19)

You can enter and exit each lab as often as you would like. You only have one chance to answer each question. If you are unsure of an answer, please research the topic and come back to the question before the due date.

Grading

Your grade will be determined based on the following grading schema:

Grade	Percentage	Points Range
A	90-100%	270-340
B	80-89.99%	240-269
C	70-79.99%	210-239
D	60-69.99%	180-209
E	<60%	<180

XE	0	failure due to academic dishonesty
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Submitting Assignments

All assignments, unless otherwise announced, **MUST** be submitted to the designated area of Canvas. Do not submit an assignment via email.

Assignment due dates follow Arizona Standard time. Click the following link to access the **Time Converter** (<http://www.thetimezoneconverter.com/>) to ensure you account for the difference in Time Zones. Note: Arizona does not observe daylight savings time.

Grading Procedure

Grades reflect your performance on assignments and adherence to deadlines. Grades on assignments will be available within 72 hours of the due date in the Gradebook. Lab grades will be posted on Tophat after the due date and the labs are set to review mode. We will transfer the grades into Canvas on a weekly basis.

Grading Disputes: If a grade has been posted in error the student has 3 days from the date of posting to address this with the faculty member teaching the course. It is your responsibility to keep track of your grades as they post. This rule was put in place based on past years when students would challenge a grade from unit 1 on the last day of class to try to earn a new grade level.

Extra Credit: There will be no extra credit opportunities assigned for this course.

Incompletes: A mark of "I" (incomplete) is given by the instructor when you have completed most of the course and are otherwise doing acceptable work but are unable to complete the course because of illness or other conditions beyond your control. You are required to arrange with the instructor for the completion of the course requirements. The arrangement must be recorded on the Request for Grade of Incomplete form (<http://students.asu.edu/forms/incomplete-grade-request>).

Late or Missed Assignments

Late or missed assignments are not accepted. Notify the instructor **BEFORE** an assignment is due if an urgent situation arises and you are unable to submit the assignment on time.

Follow the appropriate University policies to request an **accommodation for religious practices** (<http://www.asu.edu/aad/manuals/acd/acd304-04.html>) or to accommodate a missed assignment **due to University-sanctioned activities** (<http://www.asu.edu/aad/manuals/acd/acd304-02.html>).

Communicating With the Instructor

Community Forum

This course uses a discussion topic called "Community Forum" for general questions and comments about the course. Prior to posting a question or comment, check the syllabus, announcements, and existing posts to ensure it's not redundant. You are encouraged to respond to the questions of your classmates.

Email questions of a personal nature to your instructor. You can expect a response within 72 hours.

Chat

The Chat tool in Canvas allows students and teachers to interact in real time. Use Chat only for informal course-related conversations unless your instructor informs you otherwise. Chat is not ideal for questions about assignments; instructors are not required to monitor it and conversations may be buried or lost.

Email

ASU email is an **official means of communication** (<http://www.asu.edu/aad/manuals/ssm/ssm107-03.html>) among students, faculty, and staff. Students are expected to read and act upon email in a timely fashion. Students bear the responsibility of missed messages and should check their ASU-assigned email regularly.

All instructor correspondence will be sent to your ASU email account.

Title IX Disclosure

Title IX is a federal law that provides that no person be excluded on the basis of sex from participation in, be denied benefits of, or be subjected to discrimination under any education program or activity. Both Title IX and university policy make clear that sexual violence and harassment based on sex is prohibited. An individual who believes they have been subjected to sexual violence or harassed on the basis of sex can seek support, including counseling and academic support, from the university. If you or someone you know has been harassed on the basis of sex or sexually assaulted, you can find information and resources at <https://sexualviolenceprevention.asu.edu/faqs> (<https://sexualviolenceprevention.asu.edu/faqs>).

As a mandated reporter, I am obligated to report any information I become aware of regarding alleged acts of sexual discrimination, including sexual violence and dating violence. ASU Counseling Services, <https://eoss.asu.edu/counseling> (<https://eoss.asu.edu/counseling>) is available if you wish to discuss any concerns confidentially and privately. ASU online students may access 360 Life Services, <https://goto.asuonline.asu.edu/success/online-resources.html> (<https://goto.asuonline.asu.edu/success/online-resources.html>).

Notes on Letters of Recommendation

Please be aware that I receive many requests from students to write letters of recommendation and therefore have set down these guidelines. Students should only request a letter of recommendation if s/he meets the following minimum criteria.

- Has taken more than one in-person (upper-division) class with me if it is lecture, or have taken one intensive smaller class such as a seminar, lab, or practicum class with me (note: I do not write letters for students who take online classes with me)
- Received A or A+ in a 300 or 400 level course(s) taken with me
- Has spoken with me directly outside of class about career/academic goals

Note that if you meet these minimums it doesn't mean that I will agree to write you a letter. When asking for a letter of recommendation you **MUST** allow more than two weeks notice and provide me with the following. Everything listed here must be in one email.

- Unofficial Transcript
- Resume or CV
- Any application materials that are pertinent (e.g. personal statement/statement of purpose; answers to application questions; scholarship/job description; a paragraph stating why you are applying for X if you don't have a personal statement/answers to application questions; etc.).
- The information of to whom and where the letter is to be sent (e.g. email address or if it needs to be sent via the US Postal Service you must provide me with a stamped and addressed envelope).
- Clearly stated deadline of when the letter is due.

If I agree to write a letter of recommendation, I will only be able to summarize your academic performance in my class(es) and will not be able to speak to any factors that have not been accessed in class. Lastly, if I agree to write you a letter, you agree to the following.

- You will let me know the outcome. This is important to me as I will want to know what is happening with you and to keep track of any positive outcomes. Also, this means a lot to me (and anyone else you request letters from).
- You agree to check with me before putting my name down on any subsequent applications (don't just assume you can keep putting my name down if I have only agreed to write one letter for you).

ASU Online Course Policies

View the [ASU Online Course Policies \(https://asuonline-dev.asu.edu/qm-template/CanvasQM/qm-policies.html\)](https://asuonline-dev.asu.edu/qm-template/CanvasQM/qm-policies.html)

Accessibility Statements

View the [ASU Online Student Accessibility \(https://asuonline-dev.asu.edu/qm-template/CanvasQM/qm-accessibility.html\)](https://asuonline-dev.asu.edu/qm-template/CanvasQM/qm-accessibility.html) page to review accessibility statements for common tools and resources used in ASU

Online courses.

If any other tools are used in this course, links to the accessibility statements will be listed below this sentence.

Policy against Threatening Behavior

All incidents and allegations of violent or threatening conduct by an ASU student (whether on-or off campus) must be reported to the ASU Police Department (ASU PD) and the Office of the Dean of Students. If either office determines that the behavior poses or has posed a serious threat to personal safety or to the welfare of the campus, the student will not be permitted to return to campus or reside in any ASU residence hall until an appropriate threat assessment has been completed and, if necessary, conditions for return are imposed. ASU PD, the Office of the Dean of Students, and other appropriate offices will coordinate the assessment in light of the relevant circumstances.

If you have any questions, please refer to [**ACD-304-10 Course Syllabus**](http://www.asu.edu/aad/manuals/acd/acd304-10.html) ([**http://www.asu.edu/aad/manuals/acd/acd304-10.html**](http://www.asu.edu/aad/manuals/acd/acd304-10.html)) or contact P.F. Lengel or Jenny Smith in the CLAS Dean's Office at (480) 965-6506.

Academic Integrity

Academic honesty is expected of all students in all examinations, papers, laboratory work, academic transactions and records. The possible sanctions include, but are not limited to, appropriate grade penalties, course failure (indicated on the transcript as a grade of E), course failure due to academic dishonesty (indicated on the transcript as a grade of XE), loss of registration privileges, disqualification and dismissal. For more information, see [**http://provost.asu.edu/academicintegrity**](http://provost.asu.edu/academicintegrity) ([**http://provost.asu.edu/academicintegrity**](http://provost.asu.edu/academicintegrity)).

If you fail to meet the standards of academic integrity in any of the criteria listed on the university policy website, sanctions will be imposed by the instructor, school, and/or dean. Academic dishonesty includes borrowing ideas without proper citation, copying others' work (including information posted on the internet), and failing to turn in your own work for group projects. Please be aware that if you follow an argument closely, even if it is not directly quoted, you must provide a citation to the publication, including the author, date and page number. If you directly quote a source, you must use quotation marks and provide the same sort of citation for each quoted sentence or phrase. You may work with other students on assignments, however, all writing that you turn in must be done independently. If you have any doubt about whether the form of cooperation you contemplate is acceptable, ask the TA or the instructor in advance of turning in an assignment. Please be aware that the work of all students submitted electronically can be scanned using SafeAssignment, which compares them against everything posted on the internet, online article/paper databases, newspapers and magazines, and papers submitted by other students (including yourself if submitted for a previous class).

Note: Turning in an assignment (all or in part) that you completed for a previous class is considered self-plagiarism and falls under these guidelines. Any infractions of self-plagiarism are subject to the same penalties as copying someone else's work without proper citations. Students who have taken this class previously and would like to use the work from previous assignments should contact the instructor for permission to do so.

Prohibition of Commercial Note Taking Services

In accordance with **[ACD 304-06 Commercial Note Taking Services](http://www.asu.edu/aad/manuals/acd/acd304-06.html)** (<http://www.asu.edu/aad/manuals/acd/acd304-06.html>), written permission must be secured from the official instructor of the class in order to sell the instructor's oral communication in the form of notes. Notes must have the notetaker's name as well as the instructor's name, the course number, and the date.

Student Support and Disability Accommodations

In compliance with the Rehabilitation Act of 1973, Section 504, and the Americans with Disabilities Act of 1990, professional disability specialists and support staff at the Disability Resource Center (DRC) facilitate a comprehensive range of academic support services and accommodations for qualified students with disabilities.

Qualified students with disabilities may be eligible to receive academic support services and accommodations (<http://www.asu.edu/aad/manuals/ssm/ssm701-01.html>). Eligibility is based on qualifying disability documentation and assessment of individual need. Students who believe they have a current and essential need for disability accommodations are **responsible for requesting accommodations and providing qualifying documentation** (<http://www.asu.edu/aad/manuals/ssm/ssm701-02.html>) to the DRC. Every effort is made to provide reasonable accommodations for qualified students with disabilities.

Qualified students who wish to request accommodation for a disability should contact their campus DRC at: <http://www.asu.edu/studentaffairs/ed/drc/> (<http://www.asu.edu/studentaffairs/ed/drc/>).

If you are a student in need of special arrangements for we will do all we can to help, based on the recommendations of these services. For the sake of equity for all students, we cannot make any accommodations without formal guidance from these services.

Syllabus Disclaimer

The syllabus is a statement of intent and serves as an implicit agreement between the instructor and the student. Every effort will be made to avoid changing the course schedule but the possibility exists that

unforeseen events will make syllabus changes necessary. Remember to check your ASU email and the course site often.