

ZOOARCHAEOLOGY IN THEORY & PRACTICE: ANALYZING MATERIALS FROM LOS ANGELES NATURAL HISTORY MUSEUM & SOUTHERN CALIFORNIA (US)

Course ID: HIS 489

June 17-July 12, 2024

*Academic Credits: 8 Semester Credit Units (Equivalent to 12 Quarter Units)
School of Record: Culver Stockton College*

This program does not provide accommodation or food. See below options for students who are coming from outside the Los Angeles area

DIRECTORS

Dr. Aharon Sasson – Director, San Diego Zooarchaeology Laboratory at the San Diego Natural History Museum (asasson@sdnhm.org)

Dr. Amy Gusick – Curator of Anthropology, Natural History Museum Los Angeles County (agusick@nhm.org)



COURSE DESCRIPTION

The zooarchaeology course at the Natural History Museum Los Angeles County (NHMLA) is designed to be a fun and diverse learning experience. The hands-on zooarchaeological instruction will take place at the Archaeological Laboratory at NHMLA, but we take full advantage of the unique museum setting. We provide introductions to various museum careers, behind-the-scenes tours to multiple museum departments and collections (e.g., mammalogy, ornithology, taxidermy, scanning electron microscope lab) and see how faunal specimens are displayed in the main museum public exhibits (e.g., Dinosaur Hall, Age of Mammals). We also provide an introduction to paleontology with an instruction day at the La Brea Tar Pits.

Did you know that faunal remains are one of the most abundant finds in archaeological sites? Zooarchaeology, the analysis of animal bones from archaeological sites can shed light on human behavior, diet, economic and hunting strategies as well as natural and cultural site formation processes. We will learn the most current techniques for describing, classifying and analyzing

archaeological animal bones and we will discuss faunal assemblages from archaeological sites in Afro-Eurasia and the Americas.

In addition to covering theoretical approaches to faunal remain interpretations, laboratory course work will concentrate on developing proficiency in identifying faunal specimens from various animal groups. We will learn to identify taphonomic agents like butchery, burning and weathering. We will learn to handle and utilize modern collections for studying zooarchaeological remains using the large comparative collections at NHMLA.

The course is designed to develop experienced and capable researchers in zooarchaeology, a first step to a possible career in academia or the Cultural Resource Management (CRM) sector. We will discuss the many career pathways available to anthropology students and will provide an introduction to applied archaeology and help students prepare application materials for a job in their preferred pathway. We will practice both academic writing and public interpretation of faunal materials. Honors thesis and graduate level research work with the collections is possible and encouraged.

This program is lab based. No excavations will take place, we will focus on methodological analysis of faunal remains in a lab setting.

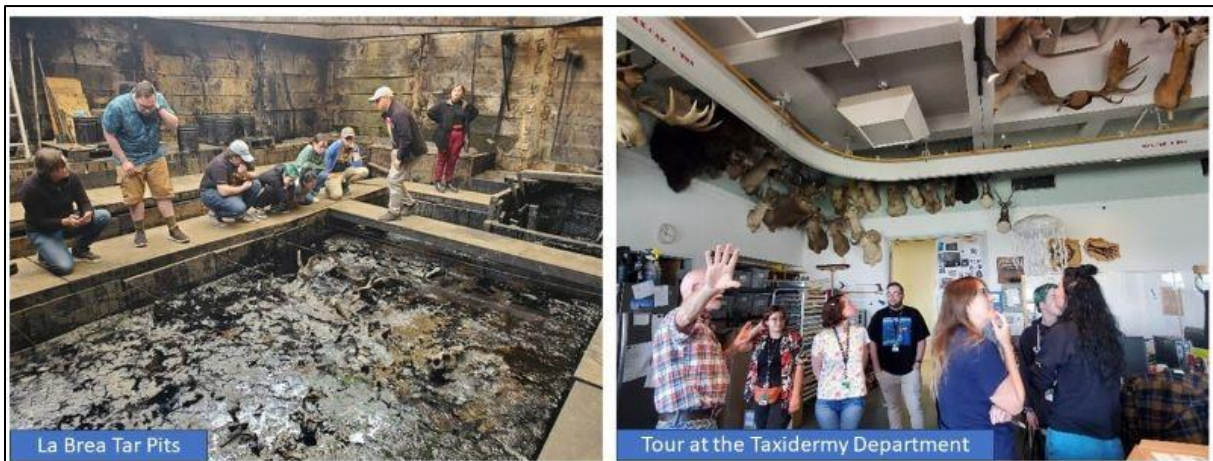
PROGRAM OUTLINE

The first half of the course will focus on learning skeletal anatomy and identifying skeletal elements of modern animal species. The second half of the course will be devoted to working on zooarchaeological assemblages from sites in southern California. We will practice identifying, classifying, and cataloging faunal remains and taphonomic agents. We will build a zooarchaeological database, conduct data analysis and write a faunal report based on zooarchaeological data we collected.

Typically, the first part of each day, before lunch break (9am-12pm), is devoted to lectures and theory and the second part of the day (1pm-5pm) to hands-on practices and tours.

TOURS AND FIELD TRIPS

Throughout the course we will meet with curators and scientists from various disciplines. In addition, we will offer instruction days at sites such as the La Brea Pits and the Huntington Library, Art Museum, and Botanical Gardens. We will also tour the NHMLA surroundings which include the Nature Garden and the Rose Garden. An optional trip to the Getty Museum will be offered on one of the weekends.



COURSE OBJECTIVES

The objective of this program is to prepare you to perform zooarchaeological analyses for both academic and non-academic contexts. This objective is accomplished by 1) providing you with the practical skills to identify animal bones from archaeological sites, 2) teaching you how to employ zooarchaeological assemblages to answer broader research questions, 3) preparing students for both

academic and non-academic careers through the preparation of job application materials and 4) experience in writing zooarchaeological interpretation for both scholarly and public audiences.

IMPORTANT DISCLAIMER

The Center for Field Sciences was established to support field training in a range of sciences at sites across the world. Traveling and conducting field work involves risk. Students interested in participating in any CFS program must weigh the potential risk against the value of education provided for the program sites of their choosing.

Risk is inherent in everything we do and the CFS takes risk seriously. A committee of leading scholars review each field school location prior to approval. Once a program is accepted, the CFS continually monitors conditions at the program site, its academic quality and ability to conduct as safe of an experience as possible.

The CFS does not provide trip or travel cancellation insurance. Students are encouraged to explore such insurance policies on their own. Post Covid 19, most basic policies do not cover trip cancelation due to pandemics. If you wish to purchase an insurance policy that covers such contingencies, explore Cancel for Any Reason (CFAR) plans. [Insuremytrip.com](https://insuremytrip.com) or [Travelguard.com](https://travelguard.com) are possible websites where students may explore different insurance policies.

We do our best to follow the schedule and activities as outlined in this syllabus. Yet local permitting agencies, political, environmental, personal, or weather conditions may force changes. This syllabus, therefore, is only a general commitment. Students should allow flexibility and adaptability as research work is frequently subject to change.

All students must consult medical professionals to ensure they are fit to participate in this program. If you have any medical concerns, please consult your doctor. For all other concerns, please consult with the program director – as appropriate.

LEARNT SKILLS

We are aware that many of you may not seek academic careers but will pursue employment in the private sector. To that end, we are following the Twin Cairns Skills Log Matrix™ (<https://twincairns.com/skill-set-matrix/>) and will provide training for the following skills:

Skill	Description
Artifact Identification	Ability to identify faunal remains from both pre-contact and historical context
Basic Conservation & Preservation	Ability to conduct initial field conservation and preservation of different artifact types, features & architecture
Data Recording	Ability to use printed or digital sheets to document & record lab data
Photography	Ability to take clear images of various elements
Artifact Documentation	Ability to measure, record, photographed and classify various artifact types in the lab/post excavating setting
Public Interpretation	Ability to understand site history and provide clear and coherent interpretation for the public
Collection Management	Ability to manage museum or other scientifically important collections using databases, digital photography, and interaction with curators/subject experts
Archival Search	Ability to find & search various databases for records related to prior work/research done on cultural or natural heritage in the project area
Zooarchaeology	Ability to identify, document and study ancient faunal remains

WEEKLY SCHEDULE

Course structure may be subject to change upon directors' discretion

	Lecture Topics	Lab Practicums
Week 1	<ul style="list-style-type: none"> History of Zooarchaeology Mammalian skeletal anatomy CSI Zooarchaeology 	<ul style="list-style-type: none"> Hands-on Identification of medium and large mammals Terrestrial and marine mammal identification
Week 2	<ul style="list-style-type: none"> Taphonomy Human-animal relationships Skeletal part representation 	<ul style="list-style-type: none"> Small mammal bones Identification Bird bone identification Magnification tools and microscopy
Week 3	<ul style="list-style-type: none"> Butchery methods and tools Metrical recording and analysis Writing a C.V. and Résumé Career Pathways 	<ul style="list-style-type: none"> Identifying and cataloging faunal remains Photographing specimens Measuring bones
Week 4	<ul style="list-style-type: none"> Prehistoric and Historic Zooarchaeology- case studies Techniques in zooarchaeology 	<ul style="list-style-type: none"> Excel workshop Faunal report writing

ACADEMIC GRADING MATRIX

Grades will be based on multiple measures of performance. Multiple measures may include, but are not limited to, the following: your participation in class, quizzes, exams, lab projects, written assignments, and oral presentations.

- A. **Performance** in class (15%)
- B. **Two quizzes:** Quiz 1 (5%) - Skeletal System (written); Quiz 2 (10%)- Quantification methods
- C. Final Exam (written, 20%)
- D. **Lab Exercise** (10%) - Identification and description of archaeological faunal bones
- E. **Research Paper** (25%) - You will be asked to write a paper on faunal remains you and your classmates have identified. You will be asked to describe the zooarchaeological findings and discuss them. The paper should include 7-10 references related to the topic you have chosen to discuss. You will be asked to present your paper to the class. You will be asked to submit your paper electronically (i.e., Microsoft Word)
- F. **Job application packet** (15%) - You will prepare a cover letter and a C.V./ Résumé

Letter grade is based on a 100-point maximum, as follows:

A = 90-100; B = 80-89; C = 70-79; D = 60-69; F = <60

SKILLS MATRIX LEVELS

The school instructors will evaluate the level each student achieved on the list of skills provided above. Each skill will be graded on one of the following three levels:

- Basic:** Can perform the skill/task with some supervision.
- Competent:** Can perform the skill/task without any supervision.
- Advanced:** Can perform the skill/task and teach others how to do it.

ATTENDANCE POLICY

The required minimum attendance for the successful completion of the field school is 85% of the course hours. Any significant delay or early departure from an activity will be calculated as an absence from the activity. An acceptable number of absences for medical or other personal reasons will not be considered if the student catches up on the field school study plan through additional readings, homework, or tutorials with program staff members.

PREREQUISITES

None. This is hands-on, experiential learning and we will study on-site how to conduct zooarchaeological research.

PROGRAM ETIQUETTE

This program takes place in an active museum, and we should be respectful of visitors and workers. Let's conduct ourselves as though we are representatives of the museum at all times. Let's allow visitors first access to elevators, be quiet and orderly while navigating the museum, etc. More detailed instructions about museum policy will be provided on first day of program.

EQUIPMENT LIST

Please bring your **laptop/tablet** with you to all classes. You will be asked to submit your work (Job application, lab exercise, research paper and presentation) electronically and for that, you will need Microsoft Word, Excel and PowerPoint.

TRAVEL (TO LOS ANGELES/NHMLA)

We suggest you hold purchasing your airline ticket until six (6) weeks prior to departure date. Natural disasters, political changes, weather conditions and a range of other factors may require the cancelation of a program. The CFS typically takes a close look at local conditions 6-7 weeks prior to program beginning and makes a Go/No Go decision by then. Such time frame still allows for the purchase of deeply discounted airline tickets while protecting students from potential loss of airline ticket costs if CFS is forced to cancel a program.

During the field school, students can use the Metro to travel to NHMLA each instruction day. The Exposition Line (<https://www.metro.net/riding/schedules>) has two stops near to the museum: EXPO/USC and EXPO/VERMONT. The Metro runs from 5:00 am to 12:30 am. If students plan to drive to the museum each day, parking will be provided at no cost.

MEETING POINT/TIME

Students will meet at the Natural History Museum Los Angeles County at 900 W Exposition Blvd, Los Angeles, CA on Monday June 17 at 9:00 AM.

If you missed your connection or your flight is delayed, please call, text or email project director immediately. A local emergency cell phone number will be provided to all enrolled students.

VISA REQUIREMENTS

This is a domestic program. No visa is required for US Citizens.

MEALS & ACCOMMODATION

This program **DOES NOT** provide accommodation or food.

Suggested Accommodation

The University of Southern California (USC) is across the street from NHMLA, within walking distance to the museum. USC offers Guest Housing options for the summer. These tend to be less expensive than other hotel accommodations. These options are on a first come/first served basis and registration for Summer 2024 USC Guest Housing opens at the end of February/early March 2024 at the following link: <https://usc.irisregistration.com/form/usc-guest-housing>.

For more information you can email: summer.conferences@usc.edu.

For lunch breaks, there are several food options near NHMLA. You may also bring your lunch, as there are refrigeration and toaster-oven and microwave options available for your use.

Restaurants (within ~10 minute walk from museum)

In Museum: Neighborhood Grill by Post & Beam - café with small menu and grab'n'go options

In USC campus: Burger Crush, Panda Express, Taco Tac, Fertitta Café, Popovich Café

Around Museum: Starbucks, Jersey Mikes, Chipotle, McDonalds, Carls Jr., Yoshinoya,

Grocery Stores

Expo Super Market 1019 W Martin Luther King Jr Blvd, Los Angeles, CA 90037

Trader Joe's 3131 S Hoover St Ste 1920, Los Angeles, CA 9008

SCHOLARSHIPS

NHMLA plans to offer one (1) competitive scholarship for \$3,000 for a student from an underserved community. NHMLA also plans to offer three (3) competitive scholarships for travel/housing assistance to students who will be attending the field school from out-of-state/outside of the local area and who need to pay for local accommodations. For more information on the scholarships and to apply please refer to the CFS website.

ACADEMIC CREDITS & TRANSCRIPT

Attending students will be awarded 8 semester credit units (equivalent to 12 quarter credit units). Students will receive a letter grade for attending this field school based on the assessment matrix (above). This program provides a minimum of 160 direct instructional hours. Students are encouraged to discuss the transferability of credit units with faculty and the registrar at their home institutions prior to attending this program.

Students will be able to access their transcript through our School of Record – Culver-Stockton College. C-SC has authorized the National Student Clearinghouse to provide enrollment and degree verification (at <https://tsorder.studentclearinghouse.org/school/select>). Upon completion of a program, students will get an email from C-SC with a student ID that may be used to retrieve transcripts. The first set of transcripts will be provided at no cost, additional transcripts may require payment. If you have questions about ordering a transcript, contact the C-SC office of the registrar at registrar@culver.edu.

TEXTBOOKS

You may purchase the Kindle or digital version or a hard copy

- Beisaw, A.M., 2013. Identifying and interpreting animal bones: a manual (Vol. 18). Texas A&M University Press. <https://www.amazon.com/Identifying-Interpreting-Animal-Bones-Anthropology/dp/162349026X>
- O'Connor, T.P. and O'Connor, T., 2008. The archaeology of animal bones (No. 4). Texas A&M University Press. <https://www.amazon.com/Archaeology-Animal-Bones-University-Anthropology/dp/1603440844>

RECOMMENDED READINGS

Baker, P. and Worley, F., 2014. *Animal bones and archaeology: guidelines for best practice*. Swindon: English Heritage.

Betts, M.W., Maschner, H.D., Schou, C.D., Schlader, R., Holmes, J., Clement, N. and Smuin, M., 2011. Virtual zooarchaeology: building a web-based reference collection of northern vertebrates for archaeofaunal research and education. *Journal of Archaeological Science*, 38(4), pp.755-e1.

Gifford-Gonzalez, D., 2018. *An introduction to zooarchaeology* (p. 503). Cham: Springer.

Miller, S.D. and Broughton, J.M., 2016. *Zooarchaeology and field ecology: a photographic atlas*. University of Utah Press.

Reitz, E.J., Reitz, E. and Wing, E.S., 2008. *Zooarchaeology*. Cambridge University Press.