

ARKY 417 (LEC01)

Dr. Elizabeth Paris

Lecture/Lab Location:ES 859 Lecture: MW 14:00 – 15:15

GFC Hours 3-3 Fall 2022 DEPARTMENT OF ANTHROPOLOGY AND ARCHAEOLOGY FACULTY OF ARTS

Lab: MW 15:30 – 16:45

Phone: 403-220-7765

Email: Elizabeth.Paris@ucalgary.ca

Office: ES 818

Office Hours: M 12:30-1:45 PM and by appointment

TA: Paige Webster

TA Office Hours: W 11:00 – 12:00 PM and by

appointment

TA Email: paige.webster1@ucalgary.ca

Any emailed questions should be first directed to the TA, and will be referred to the professor as necessary. Please expect 48 hours for a response. If more than 48 hours have passed with no reply, check the email address and re-send. Please use your UCalgary email address for course business, and expect responses to emails during business hours (9 AM to 5 PM MT). Weekend responses will be limited to emergency circumstances. Please include "ARKY 417" in the email subject line.

COURSE DESCRIPTION

The course encompasses the study and analysis of animal remains from archaeological sites. A major objective of the course is to develop an ability to identify animal species from archaeological remains, and to develop an ability to identify the various bone elements of vertebrate species. Course content will emphasize North American terrestrial mammals from the department comparative collections, particularly bison but other groups such as fish, birds and marine mammals will also be included. The main component of the course will be a study of the techniques that may be employed to analyze animal bones once they have been identified. Techniques discussed include various quantification techniques, aging and sexing analysis, butchering pattern analysis, seasonality, and a consideration of the various cultural and natural taphonomic factors that affect archaeological remains. We will also consider the implications of these analyses for assessing social phenomena such as subsistence strategies, status, and ceremonial usage.

PREREQUISITE: ARKY 201

READINGS AND TEXTBOOKS

REQUIRED READINGS:

Elizabeth Reitz and Elizabeth Wing. 2008. Zooarchaeology (Second Edition). Cambridge University Press.

Debbi Lee Cannon. 1987. Marine Fish Osteology: A Manual for Archaeologists. Department of Archaeology, Simon Fraser University (ebook available on D2L).

Readings from the relevant literature as indicated in the Course Schedule – links provided on D2L RECOMMENDED READINGS:

Gilbert, B. Miles. 1980 Mammalian Osteology. Missouri Archaeological Society Columbia, MO. On Reserve, TFDL

Olsen, Stanley J. 1960 Post-Cranial Skeletal Characters of Bison and Bos. Papers of the Peabody Museum of Archaeology & Ethnology, Volume 35. Harvard University, Cambridge (optional)

Olsen, Stanley J. 1982 An Osteology of Some Maya Mammals. Papers of the Peabody Museum of Archaeology & Ethnology, Volume 73. Harvard University, Cambridge (optional)

Please check the Course Schedule below for readings and due dates. Links to articles, book chapters and videos will be posted on D2L in modules that correspond to the week in which they are due.

REQUIRED TECHNOLOGY

In order to successfully engage in assignments for this course, please make sure that you have reliable access to the following technology:

- A computer with a supported operating system, as well as the latest security and malware updates
- A current and updated web browser
- Word processing software (Instruction will be given using MS Word; Google Docs can also be used)
- Spreadsheet software (Instruction will be given using MS Excel; Google Sheets can also be used)
- Presentation software (Instruction will be given using MS Powerpoint; Google Slides can also be used)
- D2L

Recommended: A stable internet connection, web camera, microphone, Zoom.

LEARNING OUTCOMES

By the end of this course, students will be expected to:

- > Grasp the historical development of the field of zooarchaeology, including theoretical approaches and methods.
- > Understand the basic osteology and environmental biology concepts that underlie the identification of faunal remains.
- Understand the application of zooarchaeological data to research questions and problems in anthropological archaeology.
- Apply zooarchaeological methods, techniques and concepts through lab exercises, including research design and sampling, identifications, data recording and entry, data analysis, and report preparation.
- Attain a baseline of proficiency in the field of zooarchaeological analysis that can provide the foundation for more advanced experiences and independent research.

COURSE ACTIVITIES

Grades will be based on the following course activities. Marks for each activity will be converted into a percentage of the total course grade according to the following rubric:

1.	Participation	10%	See course schedule
2.	Discussion Leadership	10%	Individual due dates
3.	Practice Labs	20%	See course schedule
4.	Bone identification Quizzes	20%	See course schedule
5.	Bison Analysis Final Project	20%	Portions due Oct. 26 and Friday, Nov. 4 on D2L
6.	NiTs Analysis Final Project	20%	Portions due Nov. 30 and Wednesday, Dec. 7 on D2L

NOTE: There is <u>no</u> registrar-scheduled final examination for this course. Students do not need to pass each individual course component in order to pass the course as a whole.

In this class, grades are assigned according to the following chart:

Percentages	Letter grade	Interpretation
95-100%	A+	The A range denotes excellent performance.

90-94.9%	Α	
85-89.9%	A-	
80-84.9%	B+	The B range denotes good performance.
75-79.9%	В	
71-74.9%	B-	
67-70.9%	C+	The C range denotes satisfactory performance.
63-66.9%	С	
59-62.9%	C-	
55-58.9%	D+	The D range denotes unsatisfactory performance.
50-54.9%	D	
<50%	F	An F denotes failing performance.

COURSE REQUIREMENTS AND ASSESSMENT

While there are separate scheduled time blocks for the lectures and labs for this class, in reality, there will be less of a separation between the activities of lectures vs. labs than the scheduling would suggest. You will be expected to attend both portions of the class, and participate fully in all aspects of the class, no matter when they are scheduled.

1. PARTICIPATION (10%)

This course will be in a seminar format, and students will be graded for their participation in in-class discussions and activities.

- Grading for "participation" assumes that you come to class regularly and on time, ready to talk
 about the required reading/assignments, and to participate in the lab activities. Your in-class
 comments during discussion should demonstrate to me that you have done the readings and
 thought seriously about them. You must also follow the rules of course etiquette (see below).
- Your participation grade will also include your participation in lab activities. This includes full participation in activity-based labs, and meeting progress goals for the Bison and NiTs projects. You are expected to remain for the entire lab period and make progress on your projects. Once your specimens are analyzed, this may include working on spreadsheets or the written portion of reports, taking opportunities to ask questions as needed.
- Participation grades for each course meeting will be assessed out of 5 points, which will include participation in lecture discussions and lab activities. You will receive a separate grade for submitted practice labs.
- If you find you are having difficulties in class, please come and see myself or the TA early in the semester to work on them. It will be hard to turn things around if you wait until the last two weeks of class to seek help.

2. DISCUSSION LEADERSHIP (10%)

During the second week of class, you will sign up for discussion leader project dates, normally in groups of four (depending on enrollment). You will work together to create a 25 minute presentation on a single topic related to zooarchaeology, to be agreed upon by the group, and approved by the professor. Each student will select a peer-reviewed article and incorporate it into the presentation; all of the articles need to be uploaded to a D2L folder by the day of the presentation (in the form of a stable URL through the library

or other open access site). Students should divide the spoken portion of the presentation evenly between them, and also work collectively to create the Powerpoint. Students will be graded both on the appropriateness of their own article for the topic, and the success of the in-class presentation as a whole.

3. PRACTICE LABS (20%)

There will be Practice labs scheduled throughout the semester (see schedule). These will include the Aging and Sexing lab, the Quantification lab, and short in-class exercises. In total, the Practice Labs will constitute 20 percent of your final grade. The labs and major due dates are listed on the Course Schedule. The Aging and Sexing lab and the Quantification lab will be submitted on D2L; shorter exercises will be submitted in class in hard copy unless specified otherwise.

4. BONE IDENTIFICATION QUIZZES (20%)

There will be four quizzes in the course. Quiz dates are listed on the Course Schedule. The quizzes will be scheduled at the beginning of the lecture portion of the class meeting corresponding to their date on the Course Schedule. Each quiz will be worth 5 percent of your grade, and collectively, quizzes represent a total of 20 percent of your final grade. The quizzes will require you to apply the knowledge that you have learned from lectures and practice labs to a set of unlabeled specimens, and the quiz will be conducted in bell-ringer style. The quizzes are closed-book, and no study aids, notes, or electronic devices are permitted.

5. BISON PROJECT AND NiTs PROJECTS (20% each)

You will complete two analysis projects in this course in order to simulate the type of investigation that you would be expected to perform as a faunal analyst for a professional research project in archaeology, whether in academia or the public sector. For this project, you will analyze an actual sample of archaeological specimens. You must hand in a research report that contains a full analysis of your sample using the techniques that have been taught throughout the class.

You will receive separate project handouts with the specifications for each assignment on D2L. Make sure to follow the directions very carefully in order to receive credit.

Please note that you will receive some class time to complete the projects, but you should also arrange to spend extra time outside of class to complete your analysis. Access to the lab spaces will be available during professor/TA office hours. Permission to access the prep room (ES 853) at other specified times, is completely subject to professor/TA discretion and continued approval of the department, and to the conditions announced in class.

Removing skeletal remains from laboratory spaces is not permitted for any reason. This includes materials assigned for projects and comparative collections. Removing course materials, knowingly or negligently damaging collections and/or university equipment will be reported to the university as misconduct. At the professor's discretion, the misconduct may result in failure of the assignment and/or the course.

MAKEUP POLICY

Consistent attendance and participation are necessary to do well in this course due to the involved nature of the lab activities. Students may provide supporting documentation for an exemption/special request. This may include, but is not limited to, a prolonged absence from a course where participation is required, a missed course assessment, a deferred examination, or an appeal. Students are encouraged to submit documentation that will support their situation. The decision to provide supporting documentation that best suits the situation is at the discretion of the student. Students cannot be required to provide specific supporting documentation, such as a medical note. Falsification of any supporting

documentation will be taken very seriously and may result in disciplinary action through the Academic Discipline regulations or the Student Non-Academic Misconduct policy.

If you fall ill with COVID19 or another serious contagious illness, please follow all university, Alberta Health Services, and province guidelines with regard to isolation, testing recommendations, and masking: https://www.alberta.ca/isolation.aspx. Please do not attend in-person classes until your recommended isolation period is complete, and follow any masking recommendations once you return to campus. Please contact Dr. Paris and your Teaching Assistant by email to notify them of the situation. Deferred exams/assignments, make-up activities and/or grade redistribution will be considered on a case-by-case basis.

Participation: Participation in lecture discussions and lab activities will be assessed on a daily basis. Each student is typically allowed <u>one</u> absence without penalty. There are 24 total course meetings, and your participation will be calculated as a specific proportion of 22 meetings (not counting the first day). Two late arrivals (i.e., walking into class after course activities have begun) will count as the equivalent of one absence when calculating participation. Where the professor grants an exemption, the participation grade will be calculated as a proportion from the total number of course meetings.

Labs and Quizzes: Rescheduling of Bone Identification quizzes and Practice Labs is extremely difficult due to their involved nature. Missed Bone Identification quizzes and Practice Labs cannot be made up without the approval of the professor, and will generally only be granted in the case of unforeseen emergency circumstances. Students who miss a quiz/lab have up to 48 hours to contact the professor to ask for a makeup lab or quiz. The student must provide a written justification by email for the request. Requests following the 48 hour window will be considered only in the case of very specific types of emergency medical circumstances, entirely at the professor's discretion. Students will need to be flexible and work with us for any attempts to reschedule. At the professor's discretion, a makeup Bone Identification quiz may use a different set of specimens from the regularly scheduled quiz, although they will fall within the range of species implied by the quiz name. For the Aging and Sexing Lab and the Quantification Lab, make-up labs will usually be scheduled with the TA during office hours or by appointment. For other in-class Practice Labs, under specific emergency circumstances, the professor may calculate the Practice Lab grade as a proportion of the total marks for the completed Practice Labs.

Projects: If there are on-going emergency circumstances that result in a late assignment, please notify Dr. Paris within 48 hours. Please be prepared to explain the circumstances and/or provide documentation (see above). If the situation does not meet the criteria for medical/emergency circumstances, late submissions will be assessed a 5% penalty per day.

REAPPRAISAL OF STUDENT WORK

There are standardized policies on both reappraisal of term work and of final grades. Please refer to them here:

Reappraisal of Graded Term Work: http://www.ucalgary.ca/pubs/calendar/current/i-2.html

Reappraisal of Final Grade: http://www.ucalgary.ca/pubs/calendar/current/i-3.html

COURSE SCHEDULE

Students should do all readings and assignments during the week in which they are assigned.

**Note that the topics and readings are subject to change at any time at the professor's discretion.

WEEK	DUE DATE	TOPICS AND READINGS
Week 1	W, Sept. 7	Topic: Introduction to the course
		Topic: Basic Concepts: Taxonomy and Planes of the Body
Week 2	M, Sept. 12	Topic: Comparative mammalian anatomy
		Read: R&W, Chapters 1 - 3 pp. 30-44.
		LAB: Comparative mammalian anatomy Practice Lab
	W, Sept. 14	Topic: Dog Anatomy I
		Read: R&W Chapter 4, Gilbert pp. 66-67, Virtual Canine Anatomy website
		Review: Gilbert p. 32-55
		LAB: Dog anatomy, Distribution of the Bison Project, Bison Project Day 1
Week 3	M, Sept. 19	Topic: Dog Anatomy II
		Read: Bartholdy et al. 2017
		LAB: Dog anatomy Practice Lab
		Confirm Discussion leader presentation topics.
	W, Sept. 21	Topic: Bison (Axial)
		Read: Wilson 1996
		LAB: Bison Project Day 2
Week 4	M, Sept. 26	Topic: Bison (Appendicular), Comparative ungulates and semi-digitigrades
		Read: Gilbert pp. 56-62
		LAB: Bison Project Day 3
	W, Sept. 28	Quiz 1: Dog Anatomy
		Topic: Taphonomy and Bone Tools
		Read: R&W Chapter 5, Gilbert pp. 7-26, Frison and Todd 1987, Garcia-Lorenzo 2014; Nicholson 1993
		LAB: Taphonomy Practice Lab, Bison Project Day 4
Week 5	M, Oct. 3	Topic: Mobility and Seasonality
		Read: R&W Chapter 8, Brink 2008 Chapter 3, Todd et al. 1990
		LAB: Bison Project Day 5
	W, Oct. 5	Quiz 2: Bison Anatomy
		Topic: Hunting and Butchering, Bone Tools
		Read: Gilbert 1990 pp. 7-30, Merritt and Davis 2017
		LAB: Bison Project Day 6
Week 6	M, Oct. 10	THANKSGIVING DAY—No class

	W, Oct. 12	Topic: Aging and Sexing
		Read: Gilbert pp. 63-65, 100—109, 152-159, Bedord 1978, Walde 2004
		LAB: Aging and Sexing Practice Lab
Week 7	M, Oct. 17	Topic: Quantification (NISP, MNI, MNE, Diversity and Equity)
		Read: R&W Chapters 6 and 7
		LAB: Quantitative Methods in Faunal Analysis
		Aging and Sexing Lab Report DUE
	W, Oct. 19	Quiz 3: Bison Fragments
		LAB: Bison Project Day 7
		Discussion Leader presentations #1:
Week 8	M, Oct. 24	Topic: Domestication and Husbandry
		Read: R&W Chapter 9, Crabtree 1993
		LAB: Bison Project Day 8
		Discussion Leader presentations #2:
		Quantification Lab Report DUE
	W, Oct. 26	Topic: Human Effects on the Environment
		Read: R&W Chapter 10
		LAB: Bison Project Day 9
		Discussion Leader Presentations #3:
		Bison Project Basics DUE on D2L at 11:59 PM
Week 9	M, Oct. 31	Topic: Mesoamerican mammals
		Read: Masson and Peraza Lope 2008
		LAB: Bison Project Day 10
	W, Nov. 2	Topic: Marine mammals
		Read: McMillan 2015, LeMoine 1994
		LAB: Distribution of NiTs Projects, NiTs Project Day 1
	F, Nov. 4	Bison Project Written Report DUE on D2L at 11:59 PM
Week 10	M, Nov. 7	TERM BREAK
	W, Nov. 9	TERM BREAK
Week 11	M, Nov. 14	Topic: Seals and Sea Lions
		Read: Lyman 1998
		Discussion Leader Presentations #4:
		LAB: NiTs Project Day 2
	W, Nov. 16	Topic: Fish
		Read: Cannon 1987 (Textbook link on D2L)
		LAB: Fish Anatomy, NiTs Project Day 3
Week 12	M, Nov. 21	Topic: Molluscan Seashells and Crustaceans
		Discussion Leader Presentations #5:

		Read: Kennett and Voorhies 1996
		LAB: NiTs Project Day 4
	W, Nov. 23	Topic: Birds
		Read: Gilbert pp.3-6, 31-35, Kaiser 2007 Chapters 1 and 2
		LAB: NiTs Project Day 5
Week 13	M, Nov. 28	Topic: Reptiles and Amphibians
		Discussion Leader Presentations #6:
		Read: Kysel et al. 2016
		LAB: NiTs Project Day 6
	W, Nov. 30	Quiz 4: Bird/Fish/Seal Anatomy
		NiTs Project Basics DUE on D2L at 11:59 pm
		LAB: NiTs Project Day 7
Week 14	M, Dec. 5	Topic: Status, Privilege, Trade and Exchange of Animal Products
		Discussion Leader Presentations #6:
		Read: Sugiyama et al. 2018
		LAB: NiTs Project Day 8
	W, Dec. 7	Topic: Animal Use in Rituals and Sacrifice
		Read: Emery 2002
		Discussion Leader Presentations #7:
		LAB: NiT Project Day 9
		NiTs Project Final Report DUE on D2L at 11:59 pm

COURSE POLICIES

LAB RULES

- Faunal specimens may not be removed from the labs and prep rooms in which they are stored.
- Food is not permitted in lab classrooms or prep rooms, because it can leave damaging residues on artifacts and analysis surfaces. You may bring a drink in a sealed, non-spill container, which you should keep stowed whenever we handle specimens. This is a long seminar with a substantial lab component, so plan accordingly. If you anticipate being hungry, please eat before coming to class. You may step out to the 8th floor carrel area for a snack during the short break. In either case, you need to wash your hands with soap after eating to remove food residues.
- Continuing use of the prep room (ES 853) is conditional on the rules being followed precisely by all members of the class.
- Only students currently enrolled in the course are permitted in the prep room.
- Specimens must be treated with care and respect, with every effort made to avoid damage. Any damage that does occur must be reported immediately.
- By remaining in the class, you agree to promptly follow any and all safety instructions from the professor and teaching assistant. Unsafe behavior will not be tolerated, and will be reported to the university as appropriate.

Students are required to remain and assist with clean-up activities following labs, as directed by the professor and TA.

CLASSROOM ETIQUETTE

- Please make this class a scheduling priority. It is important to arrive on time. Please only leave class before the end of the period if there is an emergency, in which case, please notify the professor as soon as possible. We will schedule a short break during the lab, normally corresponding to 15:15 to 15:30, but if you need to use the restroom or grab a drink of water, please do so quietly and discretely. However, you may not leave the room during a scheduled Bone Identification quiz, for academic honesty reasons.
- Treat everyone in the class as a colleague—show respect to both your fellow students and myself, even if you strongly disagree with someone's opinion. Be friendly, courteous and kind during discussions. Do not talk over or interrupt the professor or other students.
- Silence and stow your phones, and do not use them during class. They are distracting to everyone.
- Only use laptops and tablets for note-taking purposes. Using them for other activities is highly distracting. If your laptop or tablet is distracting the professor or your fellow students, you will be asked to place it on the podium for the remainder of the class period, and you will lose participation points for that day.
- You may not make video and audio recordings of lectures and review sessions without the explicit consent of the professor, nor transfer them to another student, whether or not that student is enrolled in the course. Please see the statement on Professor Intellectual Property below.

UNIVERSITY POLICIES

ACADEMIC ACCOMMODATIONS

Students seeking an accommodation based on disability or medical concerns should contact Student Accessibility Services; SAS will process the request and issue letters of accommodation to professors. For additional information on support services and accommodations for students with disabilities, visit https://live-ucalgary.ucalgary.ca/student-services/access. Students who require an accommodation in relation to their coursework based on a protected ground other than disability should communicate this need in writing to their Professor or the Department Head. The full policy on Student Accommodations is available at https://www.ucalgary.ca/legal-services/university-policies-procedures/accommodation-students-disabilities-procedure.

ACADMIC INTEGRITY POLICY

Academic integrity is the foundation of the development and acquisition of knowledge and is based on values of honesty, trust, responsibility, and respect. We expect members of our community to act with integrity. The University Calendar includes a statement on the principles of conduct expected of all members of the university community (including students, faculty, administrators, any category of staff, practicum supervisors, and volunteers), whether on or off university property. This statement applies in all situations where members of the university community are acting in their university capacities. All

members of the university community have a responsibility to familiarize themselves with the principles of conduct statement, which is available at: www.ucalgary.ca/pubs/calendar/current/k.html.

ACADEMIC MISCONDUCT

The University of Calgary is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect.

Academic dishonesty is not an acceptable activity at the University of Calgary, and students are strongly Misconduct section advised read the Student in the University Calendar www.ucalgary.ca/pubs/calendar/current/k-3.html. Often, students are unaware of what constitutes academic dishonesty or plagiarism. The most common are (1) presenting another student's work as your own, (2) presenting an author's work or ideas as your own without adequate citation, and (3) using work completed for another course. Such activities will not be tolerated in this course, and students suspected of academic misconduct will be dealt with according to the procedures outlined in the calendar at: https://www.ucalgary.ca/legal-services/university-policies-procedures/student-academic-misconductprocedure

For students wishing to know more about what constitutes plagiarism and how to properly cite the work of others, please attend one of the Academic Integrity workshops offered through the Student Success Centre: https://www.ucalgary.ca/student-services/student-success/learning/academic-integrity

INSTRUCTOR INTELLECTUAL PROPERTY

Course materials created by professor(s) (including course outlines, presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the professor(s). These materials may NOT be reproduced, redistributed or copied without the explicit consent of the professor. The posting of course materials to third party websites such as note-sharing sites without permission is prohibited. Sharing of extracts of these course materials with other students enrolled in the course at the same time may be allowed under fair dealing. Information on Instructor Intellectual Property can be found at https://www.ucalgary.ca/legal-services/university-policies-procedures/intellectual-property-policy

FREEDOM OF INFORMATION AND PROTECTION OF PRIVACY ACT

Student information will be collected in accordance with typical (or usual) classroom practice. Students' assignments will be accessible only by the authorized course faculty. Private information related to the individual student is treated with the utmost regard by the faculty at the University of Calgary.

COPYRIGHT LEGISLATION

All students are required to read the University of Calgary policy on Acceptable Use of Material Protected by Copyright (https://ucalgary.ca/legal-services/university-policies-procedures/acceptable-use-material-protected-copyright-policy) and requirements of the copyright act (https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html) to ensure they are aware of the consequences of unauthorized sharing of course materials (including professor notes, electronic versions of textbooks, etc.). Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Policy.

SUPPORTS FOR STUDENT LEARNING, SUCCESS AND SAFETY

Please visit the Registrar's website at: https://www.ucalgary.ca/registrar/registration/course-outlines for additional important information on the following:

- Wellness and Mental Health Resources
- Student Success Centre
- Student Ombuds Office
- Student Union (SU) Information
- Emergency Evacuation/Assembly Points
- Safewalk

IMPORTANT DATES

The last day to drop this course with no "W" notation and still receive a tuition fee refund is Thursday, September 15th, 2022. Last day add/swap a course is Friday, September 16th, 2022. The last day to withdraw from this course is Wednesday, December 7th, 2022.

https://www.ucalgary.ca/pubs/calendar/current/academic-schedule.html#fall2017