
ANTH 350 (LEC01)
Laboratory Practice in Biological Anthropology
GFC Hours 1-2
Winter 2024

Prerequisite(s): ANTH 201. Restricted to BSc Hons or ANTH/ARKY MAJ only.

COURSE DESCRIPTION

Examines the basic concepts and methods of biological anthropology using an experiential learning model. Coverage includes genetics, osteology, primatology, paleoanthropology, and human biology with a strong emphasis on the role of evolutionary theory throughout.

LEARNING OUTCOMES:

The Department of Anthropology and Archaeology is committed to student knowledge and skill development.

Upon completion of this course, students should be able to:

- 1) List ways of knowing and use one of these, the scientific method, to critically evaluate conclusions made about the relationship between variables;
- 2) Explain the processes involved with cellular reproduction, protein synthesis, and the inheritance of traits;
- 3) Correctly explain and provide examples of the mechanisms that drive change in species over time (e.g. natural selection, sexual selection, genetic drift, gene flow, and mutation);

- 4) Apply concepts from the scientific method and research design to experiments involving human biology;
- 5) Accurately name the major human bones and the selected features on these bones, correctly identify right and left elements, when applicable, and estimate the sex and age of the individual using the methods discussed in lab;
- 6) Explain why primatology is part of biological anthropology and develop an ethogram based upon non-human primate behaviours;
- 7) Demonstrate understanding of hominid species and their places in human evolution through creation of a phylogenetic tree.

READINGS AND TEXTBOOKS:

There is no textbook for ANTH 350. The list of **required** readings, videos, and podcasts is found in the schedule below. Links to the materials are available through D2L and in the weekly question sets.

REQUIRED TECHNOLOGY and EQUIPMENT:

You will need access to a computer or similar equipment to enable you to read and post assignments on the class D2L site. Specific labs require you to bring in a laptop or share a laptop with another student.

COURSE REQUIREMENTS AND ASSESSMENT

Component	Percentage of Final Course Grade
Lab Assignments	46%
Lab Practical Quizzes	40%
Discussion Questions	14%

- 1) **Lab Assignments** These take place during the ~2-hour lab portion of the class as indicated in your schedule. Your TA will guide you through each lab activity, ensure that everyone is engaging with their lab partners, and safely handling the equipment, bones, and fossil casts. At the end of each lab, the TA will collect your lab and return it to you the following week after assessing your work. Labs may be given to the TA either through the D2L Dropbox or in person if a paper copy of the lab was completed.

Lab assignments will be marked based upon completeness and deductions will be made for questions left unanswered. They will also be marked based upon your demonstration of understanding of that week's lab. Are your answers correct? Are they

largely free of grammatical and spelling errors? Did you do what was asked? Do your responses show evidence of critical thinking and independent work?

Labs 5 (Human Skeletal Biology I: Cranium) and 8 (Primateology) will be held during the regularly scheduled lab times, after Lab Practical Quiz #1 and Lab Practical Quiz #2, respectively.

The general weighting of each lab is as follows:

Lab 0 (Introductory lab on the first day): Unmarked/0%

Labs 1-4, 6, 7, and 9-10 are worth ~5% each

Labs 5 and 8 are worth ~3% each

- 2) Lab Practical Quizzes** Your knowledge in each section of this course will be evaluated through three lab practicals, as listed in the schedule below. Each practical will be held during the lecture portion of the course, with that week's lab following afterwards. The first lab practical is written and consists of multiple choice, matching, fill-in-the-blank, and short answer questions. It covers the material up to and including Lab 4 and the associated readings.

For the second and third lab practicals, you will rotate through approximately 20 stations located throughout the classroom. Each station will have a bone, model, or casted material that you will answer questions about. After 60-90 seconds, you will move to the next station. The second lab practical will cover labs 5-7 and the third covers labs 8-10. Lecture materials and the required readings are considered testable content.

All three lab practical quizzes are **closed book**. To help you with studying, review sessions will be held outside regular class times. More information about this will be posted closer to the dates.

- 3) Discussion Questions** Periodically throughout the term, I will ask you to hand in your responses to the questions that I've assigned for each reading. Not every weekly question set will be handed in and marked, just those that I will be requesting. You won't have prior warning of this, so it will be useful for you to keep on top of the readings, videos, and podcasts that are assigned each week and have the completed questions ready at the start of class. As we will be discussing topics and issues related to the week's readings during lecture, this will also encourage you to have some ideas and responses ready to contribute to the discussion. The questions sets to be marked will be due no later than the beginning of the class. They may be submitted via D2L Dropbox or a typed, printed copy can be given to me directly.

Assessment of the discussion questions will be based upon: 1) Completion and timely submission of the questions; 2) Evidence of understanding the concepts; 3) Evidence of

critical thinking; and 3) Clarity of your communication (spelling, grammar, organization, correct use of terms, etc.). A rubric containing more details can be found on D2L.

Policy for Late and Missed Assignments

Unless otherwise stated by the instructor via email and D2L, **all labs must be handed in at the end of the class**. Late assignments will not be accepted without instructor approval and, depending on circumstances, may be subject to a **penalty of 5% per day**, including weekends.

Please notify both me and your TA via email if you cannot attend class due to illness, etc. or if you will be late (>30 minutes) for the lab. We will work with you to determine whether a make-up lab is possible or if the weight of the missed lab activity can be transferred to the other labs. As the lab practical quizzes are largely based upon the labs, it is highly recommended that students who have missed a lab find a way to cover the content.

If you miss handing in the discussion questions at the start of class and they are to be assessed that week, you must email the instructor and request approval to submit them late. Since we will be discussing most of these questions in class, **late submissions will be subject to a 10% per day penalty**, with Monday counted as the 1st day.

Missed Lab Practical Quizzes

Missed tests cannot be made up without the approval of the instructor. Tests may only be deferred in the case of serious illness or medical emergency, religious observance, or domestic affliction. Students who miss a test have up to 48 hours to contact the instructor to ask for a makeup test. Students who do not schedule a makeup test with the instructor within this 48-hour period forfeit the right to a makeup test and will receive a mark of zero on the exam. If approved by the instructor, a makeup test must be written within one week of the missed lab quiz on a day/time scheduled by the instructor.

Makeup quizzes will differ significantly in format and/or content from the regularly scheduled test. This includes asking different questions and rewording previous exam questions to change the correct answer(s).

Students may be asked to 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. Supporting documentation may be dependent on the reason noted in their personal statement/explanation provided to explain their situation. This could be medical certificate/documentation, references, police reports, invitation letter, or a statutory declaration, etc. 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.

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>

Department of Anthropology and Archaeology Grading Scheme:

A+	95 – 100%	B+	80 – 84.9%	C+	67 – 70.9%	D+	55 – 58.9%
A	90 – 94.9%	B	75 – 79.9%	C	63 – 66.9%	D	50 – 54.9%
A-	85 – 89.9%	B-	71 – 74.9%	C-	59 – 62.9%	F	< 50%

Please note that no extra credit work/make-up assignments are available in this class. You do not need to pass each course component to earn a passing grade in the class.

Land Acknowledgement

The University of Calgary, located in the heart of Southern Alberta, both acknowledges and pays tribute to the traditional territories of the peoples of Treaty 7, which include the Blackfoot Confederacy (comprised of the Siksika, the Piikani, and the Kainai First Nations), the Tsuut’ina First Nation, and the Stoney Nakoda (including Chiniki, Bearspaw, and Goodstoney First Nations). The City of Calgary is also home to the Métis Nation of Alberta (Districts 5 and 6).

Acknowledgment and Respect for Diversity

The Department of Anthropology and Archaeology views diversity of identity as a strength and resource. Your experiences and different perspectives are encouraged and add to a rich learning environment that fosters critical thought through respectful discussion and inclusion.

COURSE POLICIES

- Please use email to contact myself or the TA with any questions or concerns not covered in this syllabus.
- Office hours: If there is something that you would like to address with me outside of class time, please email me with *ANTH 350- Monday* in the subject line. I’m happy to meet with students, whether in-person or over Zoom. Please note that my in-person availability this term is limited (Tuesdays are generally good).
- If you have a question or concern about how your lab assignment was marked, please talk to the TA first before contacting me. Most likely, your concern can be resolved without my involvement.
- No food or drinks (except water in a closed, spill-proof container) in ES 743. This includes during the lecture time. The reason for this policy is that it keeps the lab space clean and the materials we use safe from accidental spills. Feel free to step outside the classroom if you need to take a break.
- No photos or videorecording of the lectures or lab materials is permitted unless you have my permission to do so because of an academic accommodation.

- Can you bring your cell phone to class? Yes, but please silence notifications and keep your device (and yourself) focused on the course materials. Any complaints of distractions or disruptions will result in this policy being revoked. Cell phones are not permitted during lab practical quizzes.

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 instructors. 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 Instructor or the Department Head. The full policy on Student Accommodations is available at <https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Student-Accommodation-Policy.pdf>

ACADEMIC 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 advised** to read the Student Misconduct section in the University Calendar at: 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-misconduct-procedure>

For students wishing to know more about what constitutes plagiarism and how to properly cite the work of others, the Department of Geography recommends that they attend 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 instructor 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
- Graduate Students' Association (GSA) Information
- Emergency Evacuation/Assembly Points
- Safewalk

TENTATIVE CLASS SCHEDULE

Date	Lab #	Topic	Reading
Jan. 8	0	Introduction to course; professional communication skills, research skills	Course syllabus
Jan. 15	1	Physiological homeostasis: Stress, science, and human variation	<i>Explorations</i> Chapter 1, 4.
Jan. 22	2	Forces of evolution: Natural and sexual selection	Zimmer & Emlen (2016) Ch. 2 HHMI Finch video BBC Earth video "In the thick of it"
Jan. 29	3	Molecular genetics	Zimmer & Emlen (2016)- Ch. 5 ABC "Celebrating Gregor Mendel" podcast (53 min)
Feb. 5	4	Population genetics & inheritance of traits	Lewis (2020)- Ch. 15 Khan (2006) "Wet or dry ear wax?"
Feb. 12	5	Lab Practical # 1 (covers Labs 1-4) Human skeletal biology I: cranium	BBC REEL (2021): Phrenology Caspari (2003)
Feb. 19	Reading Break: No classes		
Feb. 26	6	Human skeletal biology II: post-crania	Kerton (2010) BBC article (2010) Guerrini (2023)
Mar. 4	7	Human skeletal biology III: age & sex estimation of skeletons, skeletal lesions	<i>Explorations</i> Ch. 15 (pp. 548-573) Whipple (2023)
Mar. 11	8	Lab Practical # 2 (covers Labs 6-8) Primateology	<i>Explorations</i> Ch. 6, Marks (2018) Ch. 5
Mar. 18	9	Paleoanthropology: Oligocene to Pliocene	First Primates (2008) <i>Explorations</i> Ch. 5 Marks (2018)
Mar. 25	10	Paleoanthropology: Genus <i>Homo</i>	Your Inner Monkey (2014) Warinner (2013) Kwon (2022)
Apr. 1	No Class		
Apr. 8	11	Lab Practical # 3 (covers Labs 8-10)	n/a

IMPORTANT DATES

M Jan 8	Start of Classes
R Jan 18	Last day to drop a class without a financial penalty
F Jan 19	Last day to add or swap a course
F Jan 26	Fee payment deadline for Fall Term full and half courses.
M Feb 19	Alberta Family Day No Classes.
Feb 18-24	Reading Break. No classes.
F Mar 29	Good Friday no classes
M Apr 1	Easter Monday no classes
T Apr 9	End of classes Last day to withdraw from half courses.
Apr 12-23	Fall Final Exam Period.
May 20-25	Exam period for Registrar deferred final exams

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