

DEPARTMENT OF ANTHROPOLOGY AND ARCHAEOLOGY
ANTH 309: HUMAN EVOLUTION
WINTER 2022
GFC HOURS (3-1)

*How did our species evolve?
Who are our fossil ancestors?
What is the 'story' of human evolution?*

Lectures: MW 15:30-16:45 in MFH 160

Labs: Thursdays in ES 614

Instructor: Dr. Susanne Cote

Office: ES 750

Tel: (403) 220-8190

Email: scote@ucalgary.ca

Office Hours: TBD

[office hours are hybrid Zoom/in person]

TA: Mariam Bundala

Email: mariam.bundala@ucalgary.ca

TA: Carrie Daignault

Email: carrie.daignault@ucalgary.ca

TA: Laís Moreira Pacheco

Email: lais.pacheco@ucalgary.ca

Prerequisite: ANTH 201

COURSE DESCRIPTION:

We will work chronologically and thematically through the last seven million years surveying the major phases of human evolution, with an emphasis on understanding how specific human adaptations evolved and why. In laboratories, students will learn how to identify fossils and how to reconstruct behavior from anatomical and paleontological evidence by studying fossil casts.

REQUIRED READINGS:

- Readings from the scientific literature as indicated in the Schedule – links provided on D2L.
- Several of the readings come from The Nature Education Knowledge Project, Biological Anthropology Section - <http://www.nature.com/scitable/knowledge>

Recommended Readings:

- Keep your textbook from ANTH 201. It will be a helpful reference!

REQUIRED TECHNOLOGY and EQUIPMENT:

- You must have a **well-fitting mask** that covers your mouth and nose for lectures and labs. Please see <https://ucalgary.ca/risk/emergency-management/covid-19-response/mask-faq> for information on the campus-wide mask policy.
- You must have a working computer with a broadband internet connection that can access D2L and the library website.

LEARNING OUTCOMES:

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

- Know the basic outline of human evolution over the past 7 million years, including major evolutionary developments and important fossil sites and specimens.
- Describe how paleoanthropologists identify and study new fossil finds.
- Use basic fossil morphology to interpret function and behavior of extinct hominin species.
- Assess the reliability of information from the fossil record, including how we know what happened in the past, the limitations of the fossil record, and levels of inference in historical science

COVID-19 INFORMATION AND MODIFICATIONS TO COURSE NORMS:

- Please see the “COVID-19” section of the D2L website for additional information.
- The plan for ANTH 309 is to run this course as close to its normal format as possible.
- Labs will be delivered in person. You are required to attend your assigned laboratory section each week. You must bring and wear a **well-fitting mask** for your entire lab. Disposable latex **gloves** will be provided.
- There is a possibility that the University of Calgary will move all classes online part way through the semester. I ask for your flexibility and understanding. In that event the format of the labs and assessments will change.

COURSE REQUIREMENTS AND GRADING:

Lab Assignments – 30% - in person weekly throughout the semester [see attached schedule]

- Each of the assignments is equally weighted and will be worth ~3% of your final grade (30%/8 labs = 3.75% each). The purpose of the labs is to give students the opportunity to examine fossils and fossil casts first hand and learn how paleontologists study fossil remains. All work needed to successfully complete the lab assignment will be done **in class**.
- You can use your lecture notes during labs, but you cannot use cell phones or computers.

Mid-term Examination – 25% - February 28th

- This is a 75-minute exam that will take place in class. It is closed book.
- This exam will cover lectures, laboratories, and readings assigned since the beginning of term through Week 6 of class (inclusive).
- The format will include a mixture of short, medium, and long answer questions.

Laboratory Examination – 10% - April 7th in your normal lab section

- The lab exam will take place during your last scheduled lab section. It is closed book.
- The lab exam will consist of a set of ‘stations’, each with a short question to be answered.
- Students will work individually for the lab exam, rotating around to all of the stations on the exam. Each station will be timed. No notes or other study materials may be used during the examination.
- Students who have attended all labs and made sure that they **understand what they are seeing in lab** should do well.

Final Examination – 35% - Registrar scheduled (April 19th – 29th)

- This is a 2-hour exam scheduled by the Registrar. It is closed book.
- The final examination will cover ALL lectures, laboratories, and assigned readings for the term. The format will be similar to the midterm with a mixture of question types.

Department of Anthropology and Archaeology Grading Scheme:

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

*****Please note that no extra credit or 'make up' work is available in this class*****

You do not need to pass each course component to earn a passing grade in the class

***** Please note that the assessment plan for lab assignments and the lab exam will be subject to change if in-person classes are suspended during the semester*****

COURSE POLICIES:

Classroom behavior and attendance:

- The most important thing is to be respectful and supportive of other students.
- Even though we will be online for lectures, your conduct matters. Please find a quiet space and turn off your cell phone and any other electronic devices/background noises on your computers to avoid distracting other students.
- Lecture slides will be posted AFTER class, not before. You should come to lecture prepared to take notes. Please note that reading the lectures slides alone will NOT be sufficient to get a good grade in this class. All material from lectures is testable, and lecture slides will not have everything you need to know.

Labs:

- Most importantly, you must obey all of the COVID-19 safety procedures. Please see the COVID section of the D2L course website for all of the information you need.
- You must always attend your assigned lab section. You cannot attend a different section one week to suit your schedule.
- You should **bring a copy of your class notes** with you to lab each week.
- Students are encouraged to seek help and advice from the TA or other students as often as possible. You should not be trying to look answers up online! This is not a good way to be successful with the laboratory assignments.
- All work necessary to complete the lab exercises will be done in class. There will be no 'homework' from labs and you will submit your lab exercises at the end of class on the day of that lab. Lab assignments will be returned the following week during your next lab.
- Labs are a **required course component** and may only be missed in the case of illness or personal emergency. You must contact your TA as soon as possible (preferably before class)

if you need to miss a lab. The **only** opportunity to make-up missed laboratory exercises will be during official make-up sessions prior to the midterm and during Lab 9.

Absence, Deferral, and Grading Policies:

- Missed exams automatically receive a score of zero. In the event of an emergency or illness, the instructor must be notified BEFORE the exam if at all possible.
- 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. 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.
- The instructor at their discretion may transfer the percentage weight for the assessment to the remaining assessments, set a make-up assessment, etc. Make up assessments may be in any format (including oral examination); performance on make-up exams is often poorer.
- Deferment of the final exam requires Registrar approval and cannot be approved by the instructor.
- Grades will be posted on D2L as quickly as possible. Exams will not be returned to students. If you wish to see your exam, please come to office hours (on Zoom or in person).
- If you have questions about the grading of your exam or assignment, please approach Dr. Cote (exams) or the TA (labs) as soon as possible. After consultation with the teaching staff, you may dispute a grade by submitting a written statement within ten business days of receiving the grade, in keeping with the following university policies.
- **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>

Communication Guidelines:

- The best place to ask questions is IN CLASS or during office hours. Please take the opportunity to talk with the instructor and your TA whenever possible.
- Questions during lectures are welcome, so please just raise your hand. If something doesn't make sense to you, it probably didn't make sense to other students either!
- I always prefer to talk IN PERSON with students whenever possible. I will answer questions over email, however due to the volume of emails I receive I cannot commit to answering email questions immediately. It may take up to 2 business days (48 hours), so do not send questions last minute.
- I reserve the right to share questions and answers transmitted over email on D2L or in class if the answers are pertinent to everyone in the class. This saves time, and ensures that all students have access to the same information as they prepare for assignments and exams.
- Before emailing a question, please make sure that it hasn't already been addressed in the course outline, assignment handouts, or on D2L!

UNIVERSITY POLICIES AND SUPPLEMENTAL INFORMATION:

CONDUCT

Students, employees, and academic staff are also expected to demonstrate behaviour in class that promotes and maintains a positive and productive learning environment. As members of the University community, students, employees, and academic staff are expected to demonstrate conduct that is consistent with the University of Calgary Calendar, the Code of Conduct and Non-Academic Misconduct policy and procedures, which can be found at:

<http://www.ucalgary.ca/pubs/calendar/current/k.html>

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/university-policies-procedures/accommodation-students-disabilities-procedure>.

ACADEMIC MISCONDUCT

“Academic Misconduct” includes such things as cheating, falsification, plagiarism, unauthorized assistance, and failure to comply with exam regulations or an Instructor’s expectations regarding conduct required of Students completing academic assessments. Students who participate in, or encourage the commission of, Academic Misconduct will be subject to disciplinary action which could include Probation, Suspension, or Expulsion from the University. For information on academic misconduct and its consequences, please see the University of Calgary Calendar at <https://www.ucalgary.ca/pubs/calendar/current/k-3.html>

Further support on academic integrity is available at: <https://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.

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.

SUPPORT AND RESOURCES:

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

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

CLASS SCHEDULE:

***Lecture topics and readings may be adjusted throughout the semester!*

Date	Topic	Readings
Week 1		
January 10	Course Introduction; Why Study Human Evolution?	
January 12	How do we know what we know about human evolution?	Peppe and Deino, 2013 (N.Ed)
January 13	NO LABS THIS WEEK	
Week 2		
January 17	Last Common Ancestor – History and Expectations	Kivell and Schmidt 2009**
January 19	Bipedalism	
January 20	LAB 1: Basic Human Anatomy	
Week 3		
January 24	Early hominins – Basic Info and Morphology	Su 2013 (N.Ed)
January 26	Early hominins – Interpretations	Gibbons 2009**
January 27	LAB 2: Earliest Hominins	
Week 4		
January 31	Early <i>Australopithecus</i> – Basic Info and Morphology	Schrein 2016 (N. Ed); Ward and Hammond 2016 (N.Ed)
February 2	Late <i>Australopithecus</i>	Berger et al 2010**
February 3	LAB 3: Lucy	
Week 5		
February 7	Australopiths – Adaptations I	Smith and Alemseged 2013 (N.Ed)
February 9	Australopiths – Adaptations II	
February 10	LAB 4: Gracile Australopithecines	
Week 6		
February 14	<i>Paranthropus</i>	
February 16	Australopiths – Wrap Up and MIDTERM REVIEW	Spoor 2015**
February 17	LAB 5: Robust Australopithecines (<i>Paranthropus</i>)	
February 21 - 25 - READING BREAK – NO LECTURES THIS WEEK		

Week 7		
February 28	MIDTERM EXAM	
March 2	Early <i>Homo</i> – the Habilines and Erectines	
March 3	NO LABS THIS WEEK	
Week 8		
March 7	Early <i>Homo</i> – Variation in Erectines	Van Arsdale 2013 (N.Ed); Gibbons 2013**
March 9	Early <i>Homo</i> – Diets and Migration	Pobiner 2013 (N.Ed)
March 10	LAB 6: <i>Homo</i> - Habilines and Erectines	
Week 9		
March 14	Muddle in the Middle – Middle Pleistocene Hominins	Bae 2013 (N.Ed)
March 16	Early <i>Homo</i> – Recent Complications	
March 17	LAB 7: <i>Homo</i> – Erectines and Heidelbergs	
Week 10		
March 21	Modern Humans and Neanderthals - Morphology	
March 23	Neanderthals – Behaviour and extinction	Havarti 2013 (N.Ed); Monnier 2012 (N.Ed)
March 24	LAB 8: Neanderthals and modern humans	
Week 11		
March 28	Genetics and Human Evolution	
March 30	Modern Humans	Tryon and Bailey 2013 (N.Ed); Wurz 2012 (N.Ed)
March 31	LAB 9: Make up labs and review of lab materials	
Week 12		
April 4	The Hobbit: <i>Homo floresiensis</i>	Aiello 2010**; Baab 2012 (N.Ed)
April 6	Taking a Step Back – Paleoecology and Behaviour	Kovarovic 2012 (N.Ed)
April 7	LAB EXAM	
Week 13		
April 11	Course Synthesis and FINAL EXAM REVIEW	McNulty 2016 (N.Ed)
April 12	Last Day of Classes	
April 19-29 th	Final Exam (to be scheduled by the Registrar)	