

**DEPARTMENT OF ANTHROPOLOGY AND ARCHAEOLOGY
ANTHROPOLOGY 309
HUMAN EVOLUTION
WINTER 2020**

Mondays and Wednesdays 3:30 – 4:45pm

Lectures: AD 142

Labs: Thursdays ES 614

Instructor: Dr. David Katz

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Email: david.katz@ucalgary.ca

Office Hours: Mondays 1-3pm

TA: Nicola Guthrie (Labs 5 and 6)

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TA: Colin MacFarland (Labs 3 and 4)

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Pre-requisites: ANTH 201, or permission of instructor

COURSE DESCRIPTION:

How did our species evolve and who are our fossil ancestors? We will work chronologically and thematically through the last six 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!

COURSE OBJECTIVES:

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

- Discuss the basic outline of human evolution over the past 6 million years, including major evolutionary developments and important fossil sites and specimens.
- Understand what questions are asked and addressed in the fossil record, how we 'know' what happened in the past, and the limitations of the fossil records.
- Describe how paleoanthropologists identify and study new fossil finds.
- Use fossil morphology to reconstruct function and behavior of extinct hominin species.

COURSE REQUIREMENTS AND GRADING:

Lab Assignments – 25%

Midterm Exam – 30%

Final Exam – 35%

Lab Exam – 10%

Lab Assignments – 25%

Please note that laboratory assignments are mandatory. Each of the eight assignments is equally weighted and will be worth ~3% of your final grade (25%/8 labs). 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 MUST PRINT THE WEEKLY LAB ASSIGNMENT FROM D2L AND BRING IT WITH YOU TO YOUR ASSIGNED LAB SECTION!**

Mid-term Examination – 30% - March 4th in class

This exam will cover lectures, laboratories, and readings assigned since the beginning of term through the *Paranthropus* lectures (inclusive). The format will include a mixture of different types of short answer questions and medium answer questions.

Laboratory Examination – 10% - April 9th in your normal lab section

The lab exam will take place during your last scheduled lab section (April 9th). 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. 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 18-29th)

The final examination will cover ALL lectures, laboratories, and assigned readings for the term. The format will be the same as the midterm examination and will include a mixture of different types of short answer questions and medium answer questions.

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

Department of Anthropology and Archaeology Grade Scheme:

A+	94.9-100%	A	89.9-94.8%	A-	84.9-89.8%
B+	79.9-84.8%	B	74.9-79.8%	B-	70.9-74.8%
C+	66.9-70.8%	C	62.9-66.8%	C-	58.9-62.8%
D+	54.9-58.8%	D	49.9-54.8%	F	49.8% and below

COURSE POLICIES

Classroom behavior and attendance:

- The most important thing is to be respectful and supportive of other students. Please turn off your cell phone and any other electronic devices. You may use a laptop to take notes, but please sit in the back or along the sides so as to not disturb other students. Please only use your laptops to take notes, and remember that instructors can often tell when you are watching videos, scanning social media or news feeds, etc.
- It is in your own best interest to attend all classes. You are responsible for taking your own notes, or for obtaining notes from a classmate if you have to miss a class for unavoidable reasons.
- Lecture slides will be posted AFTER class, not before. You should come to class 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 **DOWNLOAD AND PRINT THE WEEK'S LAB ASSIGNMENT FROM D2L** and bring it with you to class. Otherwise you won't be able to complete the assignment! You should also **bring a copy of your class notes** with you to lab.
- Students are encouraged to work in groups for the lab exercises and to seek help and advice from the TA as often as possible. You should **NOT be using electronic devices** at any time during laboratory sessions, so **do not try to look answers up online!**
- 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.
- Labs are **MANDATORY** and may only be missed in the case of serious illness or personal emergency. You must contact your TA as soon as possible (preferably before class) if you need to miss a lab.
- **You must always attend your assigned lab section.**
- The **only** opportunity to make-up missed laboratory exercises will be at the end of term during Lab 9.

Exam and Grading Policies:

- Missed exams automatically receive a score of zero. In the event of an emergency or illness, the Anthropology main office (403-220-6516) or the instructor **MUST** be notified **BEFORE** the exam if possible, and documentation (e.g. signed Physician's Statement) must be provided. Make up exams may be in any format (including oral examination); performance on make-up exams is often poorer.
- Exams 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.
- If you have questions about the grading of your exam or assignment, please see Dr. Cote (exams) or the TA (labs) **in person** as soon as possible. After consultation with the teaching

staff, you may dispute a grade that you have received by submitting a written statement within two weeks of receiving the grade.

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!

PLAGIARISM AND CHEATING

Plagiarism: "to steal and pass off the ideas or words of another as one's own" (Webster's). Plagiarism will not be tolerated and will automatically result in a failing grade for the submission. Any student caught plagiarizing will also be subject to additional University sanctions. Students are expected to be familiar with the Department of Anthropology and Archaeology's policy on intellectual honesty

DEFERRED EXAMS

A student who is absent from a test for legitimate reasons must discuss an alternative course of action with the instructor. The instructor at their discretion may transfer the percentage weight for the test to the final examination, if there is a final examination in the course, set another test, etc. An instructor will normally make this decision on the basis of verbal information provided by the student. In the event that an instructor feels that they cannot judge the veracity of the information provided, Students must be aware that they are responsible for payment of any charge associated with the medical assessment and documentation as this service falls outside the realm of services provided by the Provincial Health Care Plan. Deferral of the final exam requires Registrar approval.

ACADEMIC ACCOMMODATIONS

<http://www.ucalgary.ca/access/accommodations/policy>

Students needing an Accommodation because of a Disability or medical condition should communicate this need to Student Accessibility Services in accordance with the Procedure for Accommodations for Students with Disabilities. Students needing an Accommodation based on a Protected Ground other than Disability, should communicate this need, preferably in writing, to the instructor of this course.

ACADEMIC INTEGRITY

Academic integrity is essential to the pursuit of learning and scholarship in a university, and to ensuring that a degree from the University of Calgary is a strong signal of each student's individual academic achievements. As a result, the University treats cases of cheating and plagiarism very seriously. Non-academic integrity also constitutes an important component of this program.

For detailed information on what constitutes academic and non-academic misconduct, please refer to the following link: <http://www.ucalgary.ca/pubs/calendar/current/k-2-1.html>. All suspected cases of academic and non-academic misconduct will be investigated following procedures outlined in the University Calendar. If you have questions or concerns about what constitutes appropriate academic behavior or appropriate research and citation methods, you are expected to seek out additional information on academic integrity from your instructor or from other institutional resources.

Where there is a criminal act involved in plagiarism, cheating or other academic misconduct, e.g., theft (taking another student's paper from their possession, or from the possession of a faculty member without permission), breaking and entering (forcibly entering an office to gain access to papers, grades or records), forgery, personation and conspiracy (impersonating another student by agreement and writing their paper) and other such offences under the Criminal Code of Canada, the University may take legal advice on the appropriate response and, where appropriate, refer the matter to the police, in addition to or in substitution for any action taken under these regulations by the University

TEACHING EVALUATIONS / USRI (Universal Student Ratings of Instruction)

At the University of Calgary, feedback provided by students through the Universal Student Ratings of Instruction (USRI) survey provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses. **Your responses make a difference, please participate!** Website: <http://www.ucalgary.ca/usri/>

Writing Across the Curriculum

Writing skills are not exclusive to English courses and, in fact, should cross all disciplines. The University supports the belief that throughout their University careers, students should be taught how to write well so that when they graduate their writing abilities will be far above the minimal standards required at entrance. Consistent with this belief, students are expected to do a substantial amount of writing in their University courses and, where appropriate, members of faculty can and should use writing and the grading thereof as a factor in the evaluation of student work. The services provided by the Writing Support, part of the Student Success Centre, can be utilized by all undergraduate and graduate students who feel they require further assistance

Emergency Evacuation Assembly Points: In the event of an emergency that requires evacuation, please refer to the following link to become familiar with the assembly points for the class: <http://www.ucalgary.ca/emergencyplan/assemblypoints>

Freedom of Information and Protection of Privacy Act: Freedom of Information and Protection of Privacy Act

The University of Calgary is committed to protecting the privacy of individuals who work and study at the University or who otherwise interact with the University in accordance with the standards set out in the Freedom of Information and Protection of Privacy Act. Please refer to the following link for detailed information: <http://www.ucalgary.ca/legalservices/foip>

The Department of Anthropology and Archaeology's FOIP (Freedom of Information and Privacy) policy requires all reports/examinations to be returned to students during class time or the instructor's office hours. Any term work not picked up will be placed in the Anthropology and Archaeology Office (ES620) for distribution. Any student not wishing to have their work placed in the office must make alternative arrangements with the course instructor early in the term.

Safewalk Information: Campus Security, in partnership with the Students' Union, provides the Safewalk service, 24 hours a day to any location on Campus including the LRT, parking lots, bus zones and University residences. Contact Campus Security at (403) 220-5333 or use a help phone, and Safewalkers or a Campus Security Officer will accompany you to your campus destination.

Faculty of Arts Program Advising and Student Information Resources: Have a question, but not sure where to start? The Faculty of Arts Students' Centre is the overall headquarters for undergraduate programs in the Faculty of Arts. The key objective of this office is to connect students with whatever academic assistance that they require.

In addition to housing the Associate Dean, Undergraduate Programs and Student Affairs and the Associate Dean for Teaching and Learning, the Arts Students' Centre is the specific home for:

- program advising
- the Faculty's Co-operative Education Program
- the Arts and Science Honours Academy
- the Faculty's Interdisciplinary Programs
- a Student Help Desk

Location: Social Sciences Room 102

Phone: 403.220.3580

Email: ascarts@ucalgary.ca

Website: arts.ucalgary.ca/undergraduate/

For registration (add/drop/swap), paying fees and assistance with your Student Centre, contact Enrolment Services at (403) 210-ROCK [7625] or visit them at the MacKimmie Library Block.

Contacts for Students Union Representatives for the Faculty of Arts:

arts1@su.ucalgary.ca

arts2@su.ucalgary.ca

arts3@su.ucalgary.ca

arts4@su.ucalgary.ca

Ombudsman's office: <http://www.ucalgary.ca/ombuds/>

CLASS SCHEDULE:

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

Date	Topic	Readings
Week 1		
January 13	Course Introduction; Why Study Human Evolution	
January 15	History of Discovery	
No Lab	No Labs in Week One	
Week 2		
January 20	Fossil record. How we know about human evolution.	Peppe and Deino, 2013 (N.Ed)
January 22	Last Common Ancestor – History and Expectations	Kivell and Schmidt 2009**
Lab 1 – Jan 23	Basic Human Anatomy	
Week 3		
January 27	Bipedalism	
January 29	Early hominins – Basic Info and Morphology	Su 2013 (N.Ed)
Lab 2 – Jan 30	Earliest Hominins	
Week 4		
February 3	Early hominins – Interpretations	Gibbons 2009**
February 5	<i>Australopithecus</i> overview	Spoor 2015**; Ward and Hammond 2016 (N.Ed)
Lab 3 – Feb 6	Lucy	
Week 5		
February 10	<i>Australopithecus</i> – East Africa	Schrein 2016 (N. Ed)
February 13	<i>Australopithecus</i> – South Africa	Berger et al., 2010
Lab 4 – Feb 13	Gracile Australopithecines	
FEBRUARY 16-22 – TERM BREAK – NO LECTURES OR LABS!!		
Week 6		
February 24	<i>Australopithecus</i> – Adaptations	Smith and Alemseged 2013 (N.Ed)
February 26	<i>Paranthropus</i>	Constantino 2013 (N.Ed)
Lab 5 – Feb 27	Robust Australopithecines (<i>Paranthropus</i>)	

Week 7		
March 2	<i>Paranthropus</i> – Adaptations	
March 4	MIDTERM EXAMINATION	
No Labs	NO LABS THIS WEEK	
Week 8		
March 9	Earliest <i>Homo</i>	Gibbons 2013**
March 11	Biomechanics in human evolution – Guest Lecture	Chen 2006**
Lab 6 – March 12	<i>Homo</i> - Habilines and Erectines	
Week 9		
March 16	Early <i>Homo</i> – Out of Africa and Variation in Erectines	
March 18	Early <i>Homo</i> Behaviour – Migration and Diet	Pobiner 2013 (N.Ed)
Lab 7 – Mar 19	<i>Homo</i> – Erectines and Heidelbergs	
Week 10		
March 23	Muddle in the Middle: Middle Pleistocene hominins	Bae 2013 (N.Ed)
March 25	Modern Humans and Neanderthals – Morphology	Havarti 2013 (N.Ed); Monnier 2012 (N.Ed)
Lab 8 – Mar 26	Neanderthals and modern humans	
Week 11		
March 30	Neanderthals – Behaviour and extinction	
April 1	<i>Homo</i> – Recent Complications and ancient DNA	Tryon and Bailey 2013 (N.Ed)
Lab 9 – April 2	Make up labs and self-directed review of lab materials	
Week 12		
April 6	Origins of Modern Humans	Aiello 2010**; Baab 2012 (N.Ed); McNulty 2016 (N.Ed)
April 8	The Hobbit: <i>Homo floresiensis</i> – Course Synthesis	
April 9	LAB EXAM	
Week 13		
April 13	NO CLASS	
April 15	Catch up and/or Review	
April 18-29	FINAL EXAM (to be scheduled by the Registrar)	