



ANTH 120-003 HUMAN ORIGINS & VARIATION SYLLABUS F2021

LECTURE TIME & PLACE: TUESDAY/THURSDAY 12:30PM–1:45PM CLARK C364

INSTRUCTOR INFORMATION

Instructor: Andrew Du, Ph.D.

Email: Andrew.Du2@colostate.edu

Pronouns: he, him, his

Office Location: Clark B225

Office Hours: Tuesday 2:00–3:30pm,
Thursday 3:30–5:00pm,
or by appointment

Teams link: <https://tinyurl.com/TuesAnth120Du>
<https://tinyurl.com/ThursAnth120Du>

Teaching Assistant: Spencer Little

Email: Spencer.Little@colostate.edu

Pronouns: he, him, his

Office Location: Clark A3F

Office Hours: Tuesday 10:30am–12:00pm,
Friday 11:00am–12:30pm,
or by appointment

Teams link: <https://tinyurl.com/littleanth120tuesday>
<https://tinyurl.com/littleanth120friday>

Communication is very important to me, and I am available to you in person immediately before or after class and in person or virtually (see links above) during office hours. If that is not convenient for you, you can either set up an alternative meeting time with me or post general, class-related questions to our CANVAS discussion board. If you need to contact me for more specific or personal questions, please email me. I will respond to you within 36 hours during the week and within 72 hours over the weekends. Please remember that email to faculty members should be conducted in a **professional manner** and is not the same as emailing/texting family or friends. When utilizing email for course communications and to ensure that I receive your email, please include:

- 1) a **subject** line with the following: **ANTH120_your LAST name_a short description of your question**. Otherwise, you run the risk of not receiving a reply as your email may be deleted or sent to spam
- 2) **sign** your name to the email (do not rely on the email address to identify you)

CLASS FORMAT

This semester's course will be taught **face-to-face AND live streamed using Echo360** on the CANVAS course page. Therefore, you have the option of attending class 100% online if you'd like, no questions asked (there are no grade penalties for in-class absences). On Echo360, you can ask questions in real time and mark confusing material/explanations by clicking the "confusion flag" button. I will try to address these in class as best I can, though there is a 10-15 second delay in Echo360. The lectures will be recorded and posted on CANVAS, where they will remain for the duration of the semester. ***Please contact me as soon as possible if you need assistance accessing certain technologies.***

SAFETY PROTOCOLS

All students are expected and required to report any COVID-19 symptoms to the university immediately, as well as exposures or positive tests from a non-CSU testing location.

If you suspect you have symptoms, or if you know you have been exposed to a positive person or have tested positive for COVID, you are required to fill out the COVID Reporter (<https://covid.colostate.edu/reporter/>). If you know or believe you have been exposed, including living with someone known to be COVID positive, or are symptomatic, it is important for the health of yourself and others that you complete the online COVID Reporter. Do not ask your instructor to report for you. If you do not have internet access to fill out the online COVID-19 Reporter, please call (970) 491-4600. You may also report concerns in your academic or living spaces regarding COVID exposures through the COVID Reporter. You will not be penalized in any way for reporting. When you complete the COVID Reporter for any reason, the CSU Public Health office is notified. Once notified, that office will contact you and, depending upon each situation, will conduct contact tracing, initiate any necessary public health requirements and notify you if you need to take any steps.

DO NOT come to class if you are exhibiting COVID-like symptoms. If at any point you feel uncomfortable attending class, you do not have to. The live-streamed and recorded lectures ensure that you can keep up with the material remotely.

For the latest information about the University's COVID resources and information, please visit the **CSU COVID-19 site**: <https://covid.colostate.edu/>.

COPYRIGHT & DISSEMINATION OF MATERIALS

DO NOT SHARE MATERIAL FROM THIS COURSE IN ONLINE, PRINT, OR OTHER MEDIA. COURSE MATERIAL IS THE PROPERTY OF THE INSTRUCTOR (PROF. DU) WHO DEVELOPED THE COURSE. MATERIALS AUTHORED BY THIRD PARTIES AND USED IN THIS COURSE ARE ALSO SUBJECT TO COPYRIGHT PROTECTIONS. POSTING COURSE MATERIAL ON EXTERNAL SITES (COMMERCIAL OR NOT) VIOLATES BOTH COPYRIGHT LAW AND THE CSU STUDENT CONDUCT CODE. STUDENTS WHO SHARE COURSE CONTENT WITHOUT THE INSTRUCTOR'S EXPRESS PERMISSION, INCLUDING WITH ONLINE SITES THAT POST MATERIAL TO SELL TO OTHER STUDENTS, COULD FACE DISCIPLINARY OR LEGAL ACTION.

COURSE DESCRIPTION

Keywords: mechanisms of evolution, genetics, living primate biology and behavior, the fossil record, human evolutionary history, human variation and adaptation.

This course provides a general introduction to Biological (Physical) Anthropology, one of the four sub-disciplines of Anthropology and aims to introduce students to:

- the various approaches and methods used by Biological Anthropologists to investigate the origins and evolutionary history of our own species and our order, Primates
- an overview of the major themes, issues, and problems within the discipline

Biological anthropologists focus on understanding humans within an evolutionary context, and in this class, we will explore topics that highlight humans and primates within an evolutionary framework. This is an interdisciplinary endeavor that involves a synthesis of research from many different areas of natural science and

evolutionary theory including genetics, systematics, geology, comparative anatomy, paleontology, primatology, ecology, and archaeology.

ANTH120 (three credits & ANTH121 one-credit lab) can be used towards the AUCC (All-University Core Curriculum) Biological and Physical Sciences credit. The objective of the AUCC Biological and Physical Sciences requirement is to instill a clear understanding of the basic scientific viewpoint, to master scientific knowledge at a level that facilitates communication in an increasingly technological society, to employ and build on core competencies in mathematics and logical/critical thinking, to enable students to learn and use the scientific method, and to evaluate the impacts of science and technology on society. This course also serves as an introductory course for all students within the Anthropology major.

ANTH 120 is a gtPathways course. The Colorado Commission on Higher Education has approved ANTH 120 for inclusion in the Guaranteed Transfer (GT) Pathways program in the [GT-SC2] category. For transferring students, successful completion with a minimum C- grade guarantees transfer and application of credit in this GT Pathways category. ANTH 120 credit will satisfy a core requirement for Natural and Physical Sciences [GT-SC2] at any Colorado public higher education college or university. This is due to its inclusion in the state's guaranteed transfer (gtPathways) program. For more information on the GT Pathways program, go to <http://highered.colorado.gov/academics/transfers/gtpathways/curriculum.html>.

ANTH 120 addresses the following Competency and Content Criteria, as approved by the State of Colorado:
The lecture content of a GT Pathways science course (GT-SC2):

- a. **Develops foundational knowledge in specific field(s) of science.**
- b. **Develops understanding of the nature and process of science.**
- c. **Demonstrates the ability to use scientific methodologies.**
- d. **Examines quantitative approaches to study natural phenomena.**

Competencies and Student Learning Outcomes for GT Pathways science course (GT-SC2):

Inquiry & Analysis:

1. Select or Develop a Design Process
 - a. Select or develop elements of the methodology or theoretical framework to solve problems in a given discipline.
2. Analyze and Interpret Evidence
 - a. Examine evidence to identify patterns, differences, similarities, limitations, and/or implications related to the focus.
 - b. Utilize multiple representations to interpret the data.
3. Draw Conclusions
 - a. State a conclusion based on findings.

Quantitative Literacy:

1. Interpret Information
 - a. Explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words).
2. Represent Information
 - a. Convert information into and between various mathematical forms (e.g., equations, graphs, diagrams, tables, words).

COURSE GOALS

Upon the completion of this course, you should be able to:

1. Define Science and describe the difference between a hypothesis and theory.
2. Define biological anthropology and describe the major areas of research within the field.
3. Define and calculate evolution.
4. Distinguish between and describe the four forces of evolution and give an example of each.
5. Identify and describe traits of the taxonomic order Primates, as well as taxonomic groups down to the superfamily level.
6. Distinguish between the different types of primate social systems and forms of locomotion.
7. Define and identify traits and trends within the taxonomic tribe, hominini.
8. Identify species of fossil hominins.
9. Explain the *biocultural* reasons for modern human variation.

REQUIRED TEXTBOOK

Hard copy: *Our Origins: Discovering Biological Anthropology* (5th Edition). Larsen, C.S. ISBN: 978-0-393-42834-6

AND/OR

eBook version: <https://colostate.instructure.com/courses/130996/modules/617494>

CREDIT HOURS

This course is three (3) credit hours per week. Thus, in accordance with the definitions of the Federal and CSU Credit Hour, students should expect that each **credit hour in class** will require approximately **two to three hours** of effort per week to accomplish readings, out-of-class assignments, and memorization and learning of the materials in preparation for successful completion of the course requirements. Therefore, for this 3-credit hour course, you should study a minimum of **6–9 hours per week** according to CSU and Federal guidelines.

GRADING

As a college student, you are responsible for your education. As a student enrolled in this course, one of your responsibilities is to submit course work and take exams by or on the due dates listed in the Course Schedule. That said, I take my role as your instructor very seriously. I care about how well you do in this course and that you have a satisfying, rewarding experience. If you are having issues with any aspect of the class, do not hesitate to contact me as soon as possible, so we can discuss methods or strategies to improve or help your efforts in this course.

ASSIGNMENT	GRADE PERCENTAGE
Open-book exams (4)	55%
Open-book quizzes (10)	20%
Documentary responses (2)	10%
Packback (10)	15%
Total:	100%

ASSIGNMENT DETAILS

Open-book exams (55%): There are four open-book exams administered during the semester. Exams contain 50 questions each and are a combination of multiple choice, matching, and TRUE/FALSE questions. Each exam will focus on 25% of the course material and is not cumulative. Exam questions will be derived from BOTH lectures and assigned readings. **You will take exams at home through the course CANVAS page on exam day, within the window of 8:00am MT to 11:59pm MT. The exam must be COMPLETED during this window (e.g., if you start the exam at 11:50pm, you will have only nine minutes to finish!). Once you start the exam, you will have only 75 minutes to complete it. Therefore, you must study the material beforehand, as you will not have enough time to look up all the answers. You will have only one attempt. You can use your textbook and notes, but I will lock down your browser so you cannot look up answers on the internet.**

The exam schedule is as follows:

- **Exam 1: Tuesday, September 21**
- **Exam 2: Tuesday, October 19**
- **Exam 3: Thursday, November 11**
- **Exam 4: Wednesday, December 15**

Open-book quizzes (20%): There are 10 open-book quizzes throughout the course of the semester, from which your lowest quiz grade will be dropped. Quizzes will cover both lecture material and textbook readings and must be taken online through our course CANVAS page. DO NOT begin the quiz until you have read and studied all the course material. You may use your notes and the materials from this unit as you complete the quiz. However, there is a 10-minute time limit, so you must study the material beforehand, as you will not have enough time to look up all the answers. You will have 5 attempts for each quiz, and your best attempt will be the one graded. All quizzes are open for a minimum of 4 days and will **close on Mondays at 10pm MT**. Because of the 4-day period for taking the quiz, you will NOT be able to take the quiz after the close date for any circumstances. If you miss the 4-day open block, you will forfeit the quiz points. **Again, there are NO make-up quizzes.**

Documentary responses (10%): You will watch two documentaries in this course: *Clever Monkeys* (October 12) and *Becoming Human* (November 9). These will replace lectures on their respective days. The documentaries can also be viewed through the course Canvas page if you are not comfortable coming to class. The documentaries will be available to watch the day before, where they will remain available for the duration of the course (so you can watch the documentary whenever you want). Documentary responses are one-page write-ups, wherein you will answer three questions, which will be made available the day before the documentary is shown in class. Documentary responses are **due at 10pm MT** on the following dates:

- ***Clever Monkeys*: October 25**
- ***Becoming Human*: November 29**

Packback (15%): The Packback Questions platform will be used for online discussion about class topics, and participation is required. Packback Questions is an online curiosity community where you can be fearlessly curious and ask BIG questions about how what we are studying relates to life and the real world.

Writing thoughtful questions and answers on Packback will:

- Help you develop writing skills necessary for any career path
- Reinforce the crucial skill of justifying thoughts and claims with credible evidence and then citing the evidence
- Enhance critical thinking sought out by employers

- Deepen your understanding of the course content by gaining diverse insights and perspectives from your peers

Packback submissions will be due every **Monday at 10pm MT**, except when there is an exam that week (see *Course Schedule* below). Your posts will be based on that week's lecture material, but because some of the course material is cumulative, feel free to refer to past lectures. In order to receive your full 15 points per week, you should submit the following before each deadline period:

- **ONE** open-ended Question per week with a minimum Curiosity Score of 50 (5 points)
- **TWO** Responses per week, each with a minimum Curiosity Score of 50 (10 points)
- Half credit will be provided for questions and responses that do not meet the minimum curiosity score

Packback will provide you with real-time feedback as you write your Question and Responses, so you can see whether your answer needs to be modified before submission in order to achieve a Curiosity Score of at least 50. You will be assigned to a group of about 10 students, with whom you will interact with via Questions and Responses for the remainder of the semester.

Before you start posting, be sure to read the Community Guidelines

(<https://www.packback.co/resources/packback-questions-community-guidelines/>) found in the tutorial on Packback. If your post does not follow the guidelines, there is a chance that it will be removed and you will not receive points for your post.

If you have any questions or concerns about Packback throughout the semester, please read their FAQ at <http://help.packback.co/>. If you need more help, contact their customer support team directly at help@packback.co.

TECHNICAL SUPPORT

Need technical assistance with your online course material? Try the following:

- Visit Canvas Student support (<https://canvas.colostate.edu/student-support/>).
- Visit Technical Support services (<https://www.acns.colostate.edu/technical-support-services/>).
- Call 970-491-7276.
- Email [Help Desk Support](mailto:HelpDeskSupport).

GRADE DESCRIPTION

I WILL NOT curve individual exam grades. If necessary, I may curve the final grades. Our department does not do pluses or minuses.

Excellent Performance:	A Grade = 90-100%
Very Good Performance:	B Grade = 80-89.9%
Average Performance:	C Grade = 70-79.9%
Poor Performance:	D Grade = 60-69.9%
Failed Performance:	F Grade < 60%

ATTENDANCE & MAKE UP POLICY

Students should attend all classes for which they are registered to obtain maximum educational benefits. Absence or lateness does not excuse students from required course work. I do not take attendance, but as an adult, it is your choice to attend the class that you and/or your family are paying for. Your exams will be based on both the assigned readings and the **lecture material, with a focus on the material that I cover in lecture**. You are strongly encouraged to attend class, as you are unlikely to do well in this course by relying on the text alone. If you miss class, it is your responsibility to collect the work that you missed.

Missed exams can **ONLY** be made up for *University-sanctioned activities* or *emergencies of a personal or health nature*. **Exams CANNOT be made up for personal reasons such as early summer or spring break**. University-sanctioned activities include competitions, events, and professional meetings in which students are officially representing the institution. Appropriate sanctioned activities include:

- Intercollegiate athletics
- Collegiate club sports and competitions
- Conferences and workshops recognized by CSU not related to academics
- Commitments on behalf of CSU (ASCSU, band, etc.)
- Professional activities recognized by CSU related to academics

Department heads or their designated representatives must approve sanctioned professional and departmental activities. Other sanctioned activities must be approved by the appropriate program director on record with the Division of Student Affairs offices or the Department of Athletics. <http://catalog.colostate.edu/general-catalog/academic-standards/academic-policies/>

If you meet those criteria, you may make up a missed exam following these guidelines:

1. For University-sponsored events, you **MUST** inform me at least two weeks **PRIOR** to the exam/quiz date.
2. For an unexpected health-related issue, you **MUST** have a letter from health services or a private physician stating that you were unable to attend the exam for health-related reasons.
3. Exams must be made up **within** 1 week of the test date (regardless of vacation or break schedules and at the discretion of the instructor).

ACADEMIC INTEGRITY POLICY

This course will adhere to the CSU Academic Integrity Policies and Guiding Principles as found in the General Catalog and the Student Conduct Code. <https://catalog.colostate.edu/general-catalog/academic-standards/academic-policies/>

Academic integrity is conceptualized as doing and taking credit for one's own work. Violations of the university's academic integrity standards include, but are not limited to:

- Cheating: includes using unauthorized sources of information, providing or receiving unauthorized assistance on any form of academic work, and engaging in any behavior specifically prohibited by the faculty member.
- Plagiarism: includes the copying of language, structure, ideas, or thoughts of another, and representing them as one's own without proper acknowledgment.
- Unauthorized Possession or Disposition of Academic Materials: includes the unauthorized selling or purchasing of examinations or other academic work, stealing another student's work, unauthorized entry

to or use of material in a computer file, and using information from or possessing exams that an instructor did not authorize for release to students.

- Falsification: includes any untruth, either verbal or written, in one's academic work.
- Facilitation: includes knowingly assisting another to commit an act of academic misconduct.

At a minimum, violations will result in a grading penalty in this course and a report to the Office of Conflict Resolution and Student Conduct Services. <https://tilt.colostate.edu/integrity/pledge/>

CSU HONOR PLEDGE

Academic integrity lies at the core of our common goal: to create an intellectually honest and rigorous community. Because academic integrity, and the personal and social integrity of which academic integrity is an integral part, is so central to our mission as students, teachers, scholars, and citizens, I will ask that you affirm the CSU Honor Pledge as part of completing your work in this course:

"I have not given, received, or used any unauthorized assistance."

Further information about Academic Integrity is available here: <https://resolutioncenter.colostate.edu/academic-integrity/>

UNIVERSAL DESIGN FOR LEARNING

I am committed to the principle of universal learning. This means that our classroom, our virtual spaces, our practices, and our interactions should be as inclusive as possible. Mutual respect, civility, and the ability to listen and observe others carefully are crucial to universal learning.

It is my intent that students from all diverse backgrounds and perspectives be well served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength, and benefit. It is my intent to present materials and activities that are respectful of diversity: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture. Your suggestions are encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally or for other students or student groups. In addition, if any of our class meetings conflict with your religious events, please let me know so that we can make arrangements for you.

If you are a student who will need accommodations for this course, please contact the Student Disability Center (<https://disabilitycenter.colostate.edu>). This must be done in a timely manner prior to implementation. A verifying memo from SDC is required before any accommodation is provided.

SUGGESTED STUDY METHODS

To be successful in this course you will need:

- Space: Establish a comfortable and well-organized physical workplace.
- Time management skills: Set personal study and "classroom" time.
- Organization skills: Print out all class material (modules, PowerPoints, assignments, additional resources, and any work you generate) and keep everything in a single location. Maintain electronic backups of all class materials.

- **Communication skills:** Demonstrate a willingness to interact with your instructor and classmates through email, discussion boards, and active participation in all class activities.
- **Initiative:** Seek help from your instructor and classmates; ask questions as they arise.
- **Discipline:** Pace yourself, complete all activities and assignments before the due date, and follow through on all class requirements to completion.

The more closely you adhere to the recommendations above, the greater your chances of having a successful semester and a rewarding experience.

COURSE SCHEDULE

Lecture topics may change, but the exam schedule will not.

UNIT 1 – UNDERSTANDING MICROEVOLUTION: ADAPTATION, GENES, AND HEREDITY			
	Topics, quiz, and assignment deadlines		Chapters (pages)
Week 1	24-Aug	Course Outline; What is Biological Anthropology?	1 (1-17)
	26-Aug	The Scientific Method	1 (17-24)
Week 2	30-Aug		Quiz 1 & Packback
	31-Aug	History of Evolutionary Thinking; Darwin's Theory of Natural Selection	2 (26-41)
	2-Sep	What is the Evidence for Evolution?	None
Week 3	6-Sep		Quiz 2 & Packback
	7-Sep	Cells, DNA, and Genes	2 (47-53) 3 (54-64, 68-74)
	9-Sep	Cell Cycle	3 (64-68, 74-75)
Week 4	13-Sep		Quiz 3 & Packback
	14-Sep	Mendelian Inheritance	2 (41-47) 3 (67-68, 76-78)
	16-Sep	Non-Mendelian Inheritance	3 (75-79) 4 (109-113)
UNIT 2 – PRIMATES, PRIMATE BEHAVIOR, AND INTRODUCTION TO THE FOSSIL RECORD			
Week 5	21-Sep		Unit 1 Exam
	23-Sep	Calculating Evolution: Hardy Weinberg & Forces of Evolution	4 (89-123)
Week 6	27-Sep		Quiz 4 & Packback
	28-Sep	Defining our Order: Primates	6 (166-182)
	30-Sep	Primate Taxonomy and Diversity	6 (182-205)
Week 7	4-Oct		Quiz 5 & Packback
	5-Oct	Primate Diet and Behavioral Ecology	7 (216-232)
	7-Oct	Primate Social Behavior	7 (206-216)
Week 8	11-Oct		Quiz 6 & Packback
	12-Oct	Film: <i>Clever Monkeys</i>	
	14-Oct	What is a Fossil & Dating Methods	8 (234-266)
UNIT 3 – FOSSIL PRIMATES, HOMININS, AND THE ORIGINS OF <i>HOMO</i>			
Week 9	19-Oct		Unit 2 Exam
	21-Oct	Early Primate Evolution	9 (274-309)
Week 10	25-Oct		<i>Clever Monkeys</i> response DUE 10pm; Quiz 7; Packback
	26-Oct	What is a Hominin? Hypotheses for the Origins of Bipedalism	10 (310-325)

ANTH120: Human Origins and Variation

	28-Oct	Earliest Hominins	10 (325-333)
Week 11	1-Nov		Quiz 8 & Packback
	2-Nov	<i>Australopithecus</i>	10 (334-353)
	4-Nov	<i>Paranthropus</i> & Origins of the Genus <i>Homo</i>	10 (343-353) 11 (353-361)
Week 12	9-Nov	Film: <i>Becoming Human</i>	
UNIT 4 - HOMO CONTINUED AND MODERN HUMAN VARIATION			
	11-Nov		Unit 3 Exam
Week 13	16-Nov	<i>Homo erectus</i> & Leaving Africa for the First Time	11 (361-385)
	18-Nov	Archaic <i>Homo</i>	11 (386-390) 12 (397-406)
	22-Nov	FALL BREAK!!!	
Week 14	29-Nov	<i>Becoming Human</i> response DUE 10pm; Quiz 9; Packback	
	30-Nov	Neandertals	12 (394-397, 406-420)
	2-Dec	Anatomically Modern Humans	12 (421-435 442-443)
Week 15	6-Dec		Quiz 10 & Packback
	7-Dec	Origin of Modern Humans: Out of Africa vs. Regional Continuity	12 (398-399, 435-439)
	9-Dec	Agriculture & Modern Human Variation	13 (450-482) 5 (124-131, 145-150)
Week 16 Final Exams Week		Wed. 15-Dec: Unit 4 Exam	