Term Information

Effective Term	Autumn 2024
Previous Value	*Autumn 2013*

Course Change Information

What change is being proposed? (If more than one, what changes are being proposed?)

We propose that the course be included in the Origins and Evolution GE Theme.

What is the rationale for the proposed change(s)?

To have this course be included in the Origins and Evolution Theme because it fits the ELOs of the theme.

What are the programmatic implications of the proposed change(s)?

(e.g. program requirements to be added or removed, changes to be made in available resources, effect on other programs that use the course)?

The only programmatic implication is that this course can now be used by students to satisfy a GE theme requirement.

Is approval of the requrest contingent upon the approval of other course or curricular program request? No

Is this a request to withdraw the course? No

General Information

Course Bulletin Listing/Subject Area	Anthropology
Fiscal Unit/Academic Org	Anthropology - D0711
College/Academic Group	Arts and Sciences
Level/Career	Undergraduate
Course Number/Catalog	3300
Course Title	Human Origins
Transcript Abbreviation	Human Origins
Course Description	The search for human origins through a reconstruction of the human and non-human primate fossil records of the last 60 million years; emphasis on human skeletal, behavioral, and social patterns.
Semester Credit Hours/Units	Fixed: 3

Offering Information

Length Of Course	14 Week, 12 Week, 8 Week, 7 Week, 6 Week
Flexibly Scheduled Course	Never
Does any section of this course have a distance education component?	No
Grading Basis	Letter Grade
Repeatable	No
Course Components	Lecture
Grade Roster Component	Lecture
Credit Available by Exam	No
Admission Condition Course	No
Off Campus	Never
Campus of Offering	Columbus, Lima, Mansfield, Marion, Newark, Wooster
Previous Value	*Columbus*

Prerequisites and Exclusions

Prerequisites/Corequisites	None.
Previous Value	*Prereq: 2200 (200), or premission of instructor.*
Exclusions	
Previous Value	Not open to students with credit for 300.
Electronically Enforced	No

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code	40.0604
Subsidy Level	Baccalaureate Course
Intended Rank	Freshman, Sophomore, Junior, Senior

Requirement/Elective Designation

Required for this unit's degrees, majors, and/or minors
Origins and Evolution

Previous Value

Required for this unit's degrees, majors, and/or minors

Course Details

Course goals or learning objectives/outcomes

- SWBAT: (1) identify distinguishing features of paleospecies, (2) conduct cladistic analyses (3) analyze primate functional morphology, (4) recognize the significance of key fossil finds, and (5) critically evaluate debates in paleoanthropology.

Previous Value

Content Topic List

- Search for human origins
- Human fossil records
- Primate fossil records
- Human skeletal, behavioral, and social patterns

Sought Concurrence No

Attachments

- ANTH 3300 AU 2022_GE.docx: Revised syllabus

  (Syllabus. Owner: Guatelli-Steinberg,Debra)
- New Form submission-origins-evolution_3300.pdf: New GE Submission Questions for Origins & Evol

  (Other Supporting Documentation. Owner: Guatelli-Steinberg,Debra)
- Anth 3300 Cover Letter.docx: Cover Letter for Resubmission

  (Cover Letter. Owner: Guatelli-Steinberg,Debra)

Comments

- Please see Panel feedback e-mail sent 09/20/22. *(by Cody,Emily Kathryn on 09/20/2022 03:42 PM)*

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Guatelli-Steinberg,Debra	06/06/2022 04:28 PM	Submitted for Approval
Approved	Guatelli-Steinberg,Debra	06/07/2022 02:50 PM	Unit Approval
Approved	Vankeerbergen,Bernadette Chantal	07/29/2022 12:51 PM	College Approval
Revision Requested	Cody,Emily Kathryn	09/20/2022 03:42 PM	ASCCAO Approval
Submitted	Guatelli-Steinberg,Debra	12/28/2022 11:49 AM	Submitted for Approval
Approved	Guatelli-Steinberg,Debra	12/28/2022 11:50 AM	Unit Approval
Approved	Vankeerbergen,Bernadette Chantal	01/03/2023 01:44 PM	College Approval
Pending Approval	Cody,Emily Kathryn Jenkins,Mary Ellen Bigler Hanlin,Deborah Kay Hilty,Michael Vankeerbergen,Bernadette Chantal Steele,Rachel Lea	01/03/2023 01:44 PM	ASCCAO Approval

THE OHIO STATE UNIVERSITY

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December 27, 2022

Theme Panel Reviewers:

On Friday, September 2, the Themes Panel 1 of the ASC Curriculum Committee reviewed the proposal for Anthropology 3300. Please find below the Panel's feedback for this proposal followed by my responses.

ANTHROPOLOGY 3300 | Unanimously approved with **two (2) contingencies** and *two (2) recommendations*

- **CONTINGENCY: The reviewing faculty ask that the most up-to-date, full and complete GEN Goals and ELOs for the Origins and Evolution theme be included in the course syllabus, per a requirement of General Education courses. The GEN Goals and ELOs can be found here on the ASC Curriculum and Assessment Services website: https://asccas.osu.edu/new-general-education-gen-goals-and-elos**

  Response: This has been done in the new syllabus

- **CONTINGENCY: The reviewing faculty kindly request that the syllabus include a full bibliography of projected reading assignments so the committee might better evaluate if this class is an advanced-level critical-thinking course on the theme in question.**

  Response:

  I have now included a reference list at the end of my syllabus.

  However, and with all due respect, I feel perusal of the reference list will not be enough to allow the panel to truly evaluate whether this course is advanced. That is because I believe that it is the way a course is taught that determines its level of complexity and requirement for analytical and critical thought. Thus, for example, following our lecture on *Homo erectus* and the "Cooking Hypothesis," we have a whole-class discussion on the strengths and weaknesses of this hypothesis. Students are then asked to write an

essay question on the exam requiring them to critically evaluate this hypothesis (on theoretical as well as empirical grounds).

Having gotten that off my chest (!), I would like to explain that the readings for this course are not all from the primary literature. Some are, and some aren't, but I do not select the readings on this basis. **Instead, I select readings based on the critical issues I want students to think about.**

For example, students read several excerpts from "The Ancestors' Tale," a popular science book by Richard Dawkins. The book's popularity belies the incisiveness with which Dawkins evaluates controversies in human evolution. Thus, for example, I have students read "The Orangutans Tale," a piece that evaluates the most parsimonious explanation for the origins of hominins from Miocene apes. Dawkins explains the genetic and phylogenetic arguments in a clear and engaging manner. This is the same for the other Dawkins excerpts, and generally, students understand them better than the textbook.

With respect to the textbook, I use Conroy and Pontzer's book "Reconstructing Human Origins, a Modern Synthesis." This book is advanced with respect to the textbooks we use in our introductory biological anthropology courses (I've taught both the introductory and advanced courses many times), and in the authors words, is written "mainly for anthropology undergraduate and graduate students." Given the level of detail, depth, and complexity included in this book, I honestly feel it falls more toward the graduate student end of the spectrum.

Here is what one of my students had to say about the text on their SEIs this past term: "The book assigned is jargon–heavy and hard to get through… unfortunately not the most helpful study material." This is in part why I include some other more digestible readings along with the text. NONE of the currently published Human Origins upper division / graduate textbooks are easy to get through. That is the nature of the subject! They are challenging to read and packed with detail. They ALL are. I hope this allays concerns that the readings may not be advanced "enough."

As noted, some of the supplemental readings are from the primary literature and are used as the basis for some of our group discussions. Once again, these readings challenge students. Here are two SEI comments from this past semester on these readings, italics mine:

> "Some of the discussion were also a little difficult to really understand enough to discuss about since *some of the reading used elevated scientific language* that some of us were not used to or found hard to follow along with, so sometimes that hindered our ability to have a thorough discussion, but luckily the instructor would provide good feedback to each of our discussion answers that need help and so that became great study material."

> "I did not love the discussion articles, as I *found the language hard to understand*."

Finally, if you are wondering how in-depth or advanced this course is as a whole, here are a few additional comments from my SEIs (from this spring and fall), italics mine, that I believe demonstrate the level at which the course is taught.

> "The class was great and *stimulating but the tests were a bit too specific."*
>
> "Something I would recommend for future classes would be maybe one more exam. *Some of the midterms were very material heavy*, and it would have been nice to split up the information a bit."
>
> "Content was engaging. The *labs could be challenging* but the professor was always there to offer help."
>
> "Very good instructor, well organized. Labs were good, *discussions were a little hard but useful*. Professor Guatelli–Steinberg is an amazing professor who did a great job at teaching such an information–packed subject. She was always willing to help anyone who needed it."
>
> "Very good instructor genuinely excited about her field. She never lectured directly from the slides but instead talked *in depth for each point that was on the slides*. Balance of discussion/lectures/labs was good."
>
> "Professor Guatelli–Steinberg made this course great, her passion for the subject kept me invested in this class and really *pushed me to try my best and learn rather than coast and get by*. Would take another of her courses gladly."

- *RECOMMENDATION: The reviewing faculty recommend adding a statement to the syllabus directing students where/how they can purchase the textbook for the course.*

  Response: This has been added.

- *RECOMMENDATION: The reviewing faculty suggest that the department include the most up-to-date version of the University's Title IX statement, which can be found here: https://asccas.osu.edu/curriculum/syllabus-elements.*

  Response: This has been added.

- The reviewing faculty request that the GE form for the Origins and Evolution theme be resubmitted using the most up-to-date version that contains the full and complete GE Goals and ELOs. The current form for the Origins and Evolution theme is available

here: https://oaa.osu.edu/sites/default/files/uploads/general-education-review/new-ge/submission-origins-evolution.pdf

Response: This has been done and submitted as a file labeled **New Form submissions-origins-evolution_3300.pdf** Please note that that the font changed automatically within the response blocks to an extremely small size in some of my more extended responses. I did not know how to change alter that.

I hope I have addressed these issues to your satisfaction.

Sincerely,

Debbie Guatelli-Steinberg, Ph.D.
Professor

Anthropology 3300
HUMAN ORIGINS

Autumn 2022

Instructor: Dr. Guatelli-Steinberg
e-mail: guatelli-steinbe.1@osu.edu
phone: 614-292-9768

Office hours: T, Th: 3:40-5PM,
or by appointment

Course Overview:

Welcome! This course is about the fossil record of primate—but especially human--evolution. We will trace the evolution of human anatomy (especially related to bipedalism), diet, life history characteristics, behavior and culture. Specific topics include methods of paleoanthropology, basic evolutionary principles, cladistics, the living primates as anatomical and behavioral models for fossils, the origins of the primate order and the anthropoid primates, hominoid (or ape) diversification during the Miocene, and the origin and evolution of major hominin fossil species, from the first potential bipeds through anatomically modern humans.

Course Objectives:

As an outcome of this course, you should be able to understand human origins in the broader context of primate evolution. You should be able to: (1) identify distinguishing features of primate and hominin paleospecies, (2) conduct cladistic analysis and apply cladistic reasoning (3) recognize and analyze essential aspects of primate functional morphology, and (4) recognize the significance of key fossil finds. Finally, you should (5) develop an ability to critically evaluate different lines of evidence bearing on major questions and/or debates in human evolution.

Text:

- REQUIRED: *Reconstructing Human Origins*. 2012. Third Edition. Glenn C. Conroy and Herman Pontzer. New York and London: W.W. Norton
- Students can find this text at the OSU Bookstore or on Amazon.

E-reserve readings: Available on our Carmen site under the Weekly Module during which they are assigned. A complete reference list is given on the last two pages of this syllabus.

Anthropology 5609 Satisfies the Origins and Evolution General Education Theme

Goals of the Origin and Evolution Theme

1. Successful students will analyze an important topic or idea at a more advanced and in-depth level than in the Foundations component. [Note: In this context, "advanced" refers to courses that are e.g., synthetic, reply on research or cutting-edge findings, or deeply engage with the subject matter, among other possibilities.]

2. Successful students will integrate approaches to the theme by making connections to out-of-classroom experiences with academic knowledge or across disciplines and/or to work they have done in previous classes and that they anticipate doing in future.

3. Successful students will appreciate the time depth of the origins and evolution of natural systems, life, humanity, or human culture, and the factors that have shaped them over time.

4. Successful students will understand the origins and evolution of natural systems, life, humanity, or human culture, and the factors that have shaped them over time.

Expected Learning Outcomes of the Origins and Evolution Theme

Successful students are able to:

1.1. Engage in critical and logical thinking about the topic or idea of the theme.

1.2. Engage in an advanced, in-depth, scholarly exploration of the topic or idea of the theme.

2.1. Identify, describe, and synthesize approaches or experiences as they apply to the theme.

2.2. Demonstrate a developing sense of self as a learner through reflection, self-assessment, and creative work, building on prior experiences to respond to new and challenging contexts.

3.1. Illustrate their knowledge of the time depth of the universe, physical systems, life on Earth, humanity, or human culture by providing examples or models.

3.2. Explain scientific methods used to reconstruct the history of the universe, physical systems, life on Earth, humanity, or human culture and specify their domains of validity.

3.3. Engage with current controversies and problems related to origins and evolution questions.

4.1. Describe their knowledge of how the universe, physical systems, life on Earth, humanity, or human culture have evolved over time.

4.2. Summarize current theories of the origins and evolution of the universe, physical systems, life on Earth, humanity, or human culture.

Anthropology 3300 addresses the origins and evolution of humanity. Throughout lecture, lab, readings and discussions, students engage in critical and logical thinking about the origins and evolution of humankind. Lectures are quite interactive, such that students are asked to observe features of fossil forms, to assess similarities and differences and whether one fossil species makes a better candidate ancestor than another. They are asked to reason about phylogenetic relationships using the logic of cladistics. There are six pre-labs and six in-class labs in this course. All of these labs were written to engage students in making logical inferences about the past. One example here is a lab (Lab 4) in which students are asked to use NIH free software ImageJ to measure the area of femoral heads (the ball at the end of the femur) in modern apes, Miocene apes, fossil hominins species and modern humans. They are asked to infer the ancestral size of the femoral head and whether, based on their measurements, similarity between modern humans and modern apes in femoral head size is likely to have arisen independently in their two separate lineages or to have been inherited directly from their last common ancestor. Scheduled discussions (there are five of them throughout the semester) center on debates/controversies in human evolution. For example, in Discussion 5, on “Dietary Debates” students are asked to evaluate these different lines of evidence (anatomy vs. direct indicaotrs of diet, such as stable carbon isotopes present in tooth enamel) and what each can and cannot reveal about the diets of our ancestors.

Course Structure:

The course has five major components: Lectures, Pre-Labs, Labs, Discussions and Exams**.**

Pre-Lab and Lab Procedures and Expectations:

1. Pre-Labs must be completed before you can begin the in class portion of each lab.
2. The in-class portion of the lab will include both actual and virtual elements. Some of the questions can be finished for homework if you don't finish during the class period.
3. The only way a missed lab can be made up is if there is a compelling reason for your having missed the lab, such as an illness or emergency. **Otherwise, labs can't be made up.**
4. Labs will be marked 10% off for each day late, and **because I plan to return them to you in a timely manner, they will not be accepted if they are more than three days late**.
5. **Both pre-labs and labs are individual assignments—copying answers from others will be considered Academic Misconduct (see below).**

Discussion Procedures and Expectations:

1. Discussion questions will be posted under the Weekly Module in which they occur. You are expected, in advance of the discussion, to read the assigned reading that corresponds to each discussion and to think about the discussion questions that are posted. In assigned groups, you will then come together to answer the questions.
2. Designate one person from your discussion (a different person each discussion) as the discussion leader. That person will both help facilitate the discussion and record the groups' answers to discussion questions.
3. At the end of the discussion, the discussion leader is expected to upload the groups' answers to Carmen as a pdf file.
4. On some occasions, discussions will not take the entire class period. That extra time is there by design: it will give you some time to review course material with your group members. **This is a very good thing to do in this information-dense class.**

Exam Expectations:

Make-up exams are given **only** if you have an emergency that prevents you from taking the exam on the date and time it is given. Official documentation (doctor's note, accident report, etc.) is required for any make-up accommodation. Any make-up exams must be completed within one week after the exam. (Otherwise, a "0" will be given for that exam).

Grading:

There is no extra credit and grades are based on a standardized scale (93-100% = A; 90-92.9% = A-, 87-89.9% = B+, 83-86.9% = B, 80-82.9%=B-, etc.)

Extra Help:

I HAVE **DROP-IN OFFICE HOURS ON TUES AND THURS FROM 3:40 TO 5:00**. IF YOU CANNOT MAKE THESE OFFICE HOURS WE CAN CERTAINLY SET UP ALTERNATIVE MEETING TIMES. I CANNOT DO JUSTICE TO DETAILED EXPLANATIONS OF COURSE MATERIAL OVER E-MAIL, SO IF THAT'S WHAT YOU NEED, EITHER SHOW UP AT OFFICE HOURS OR SET UP AN ALTNERNATIVE MEETING TIME WITH ME EITHER IN PERSON OR ON ZOOM.

Evaluation: 700 points total: See schedule below for due dates

- **(I) Discussions: 20 points each (five discussions for a total of 100 points)**
- **(II) Pre-Labs: 10 points each (six pre-labs for total of 60 points)**
- **(III) Labs: Points vary from 10-40 points (seven labs including "Lab 0" for a total of 180 points)**
- **(IV) Exams: 120 points each (Three exams for a total of 360 points)**

University Policies and Information:

Academic Misconduct

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct http://studentlife.osu.edu/csc/.

Disability Services

The University strives to make all learning experiences as accessible as possible. In light of the current pandemic, students seeking to request COVID-related accommodations may do so through the university's request process, managed by Student Life Disability Services. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

Mental Health

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling 614-292-5766. CCS is located on the 4th Floor of the Younkin Success Center and 10th Floor of Lincoln Tower. You can reach an on call counselor when CCS is closed at 614-292-5766 and 24 hour emergency help is also available 24/7 by dialing 988 to reach the Suicide and Crisis Lifeline.

Sexual Misconduct (Title IX)

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories (e.g., race). If you or someone you know has been sexually harassed or assaulted, you may find the appropriate resources at http://titleix.osu.edu or by contacting the Ohio State Title IX Coordinator at titleix@osu.edu

Diversity

The Ohio State University affirms the importance and value of diversity in the student body. Our programs and curricula reflect our multicultural society and global economy and seek to provide opportunities for students to learn more about persons who are different from them. We are committed to maintaining a community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect among each member of our community; and encourages each individual to strive to reach his or her own potential. Discrimination against any individual based upon protected status, which is defined as age, color, disability, gender identity or expression, national origin, race, religion, sex, sexual orientation, or veteran status, is prohibited.

ANTH 3300: SCHEDULE

Day	Topic Reading should be done in advance of the class for which it is assigned	Assignments Due Points
Tu 23-Aug	Lecture: Introduction; Course Mechanics, Trends in Human Evolution Reading: RHO (Reconstructing Human Origins) Text: Ch 8 pp. 269-270 and 311-315	
Th 25-Aug	Lecture: Fossils, Fossilization, and Dating Methods Reading: RHO Text: Ch 3 (all)	
Tu 30-Aug	Lecture: Methods of Paleoecology; Evolutionary Processes and Classification Reading: RHO Text: Ch 2 (all) and Ch 4 pp. 89-111	Lab 0 (10 points)
Th 1-Sept	Lecture: Introduction to Cladistics Discussion 1: Salamander's and Narrowmouth's Tail; Review in Groups Reading: E-Reserve #1 The Salamander's Tale Reading: E-Reserve #2 The Narrowmouth's Tale	Discussion 1 Answers (20 points)
Tu 6-Sept	Discussion follow-up; Lecture: Cladistics cont'd and introducing primates Reading: RHO Text: Ch 1: pp. 4-25; Pre-Lab 1	Pre-Lab 1 (10 points)
Th 8-Sept	Lab 1: Comparative Primate Craniodental Anatomy Reading: Lab 1	Lab 1 (20 points)
Tu 13-Sept	Lab 1 follow-up; Intro to Lab 2; Lecture: Setting the stage for primate evolution Reading: Pre- Lab 2 E-Reserve #3: Primate Origins I: (pp 78-95)	Pre-Lab 2 (10 points)
Th 15-Sept	Lab 2: Comparative Primate Postcranial Anatomy Reading: Lab 2	Lab 2 (30 points)
Tu 20-Sept	Follow up from Lab 2, Lecture: Primates of the Paleocene Discussion 2: *Carpolestes* Reading: E-Reserve #4: Primate Origins Nailed Reading: E-Reserve #5: Comment on Grasping Primate Origins	Discussion 2 Answers (20 points)
Th 22-Sept	Lecture: Primates of the Eocene and Oligocene Reading: E-Reserve #6: Primate Origins II (pp 109-120)	
Mon 26-Sept	ZOOM Optional Review (Time and Zoom link TBA)	
Tu 27-Sept	EXAM 1: Weeks 1-5	EXAM 1 (120 points)
Th 29-Sept	Lab 3: The Miocene: Planet of the Apes Reading: Pre-Lab 3, Lab 3 and Chapter 5 (all)	Pre-Lab 3 (10 points)

Tu **4-Oct**	**Follow up from Lab 3, Lecture: Hominoids & Molecular Clock, Bipedal Anatomy** **Reading: E-Reserve: #7: The Orangutan's Tale**	**Lab 3** **(20 points)**
Th **6-Oct**	**Discussion 3: Bipedalism; Review in groups** **Reading: RHO text Ch 8 270-278 and 301-311** **Reading: E-Reserve # 8: Littlefoot's Tale** **Reading: E-Reserve # 9: Epilogue to Littlefoot's Tale**	**Discussion 3** **Answers** **(20 points)**
Tu **11-Oct**	**Three early possible bipeds; *Ardipithecus ramidus*; *Au. anamensis*** **Reading: RHO Ch 6: pp 157-162; Ch 7: 206-209;** **Reading: RHO Ch 7, pp. 235-240; and Ch 8: 278-280** **Reading: E-Reserve #10: A New Kind of Ancestor: *Ardipithecus* Unveiled** **Reading: Pre-Lab 4**	**Pre-Lab 4** **(10 points)**
Thurs **13 Oct**	**NO CLASS: FALL BREAK**	
Tu **18-Oct**	**Lab 4: Bipedalism and *Orrorin*** **Reading: Lab 4**	
Thurs **20-Oct**	**Follow up from Lab 4; Lecture: *A. afarensis and K platyops; Au. africanus*** **Reading: RHO Ch 7, pp. 240-248; and Ch 6: pp 183-192**	**Lab 4** **(30 points)**
Tu **25-Oct**	**Discussion 4: *Australopithecus sediba*; Review in groups** **Reading: E-Reserve #11: Skeletons Present an Exquisite Paleopuzzle** **Reading: Pre-Lab 5**	**•Discussion 4 Answers (20 pts)** **•Pre-Lab 5 (10 pts)**
Weds **26-Oct**	**ZOOM Optional Review (Time and Zoom link TBA)**	
Thurs **27-Oct**	**EXAM 2 (Weeks 6-10)**	**EXAM 2** **(120 points)**
Tu **1-Nov**	**Lab 5: Dietary Divergence between *Paranthropus* and *Homo*** **Reading: Lab 5**	
Th **3-Nov**	**Follow up from Lab 5; Lecture: *Paranthropus* and *Homo habilis*** **Reading: RHO Ch 8: pp. 257-268 and Chapter 9: 327-346**	**Lab 5** **(40 points)**
Tu **8-Nov**	**Discussion 5: Dietary Debates; Review in Groups** **Reading: E-Reserve #12: Viewpoints: Feeding Mechanics, Diet, and ….**	**Discussion 5** **Answers (20 pts)**
Th **10-Nov**	**Follow up from Discussion 5; Lecture *Homo erectus*** **Reading: RHO Ch 10, pp. 377-399 and 403-447**	

Tu 15-Nov	**Lecture: Homo erectus cont'd** **Reading: E-Reserve #13: The First Pioneer.** **Reading: E-Reserve #14: Stunning Skull Gives Fresh Portrait**	
Th 17-Nov	**Homo heidelbergensis and Neanderthals** **Reading: RHO Ch 11 (all) and Pre-Lab 6**	**Pre-Lab 6 (10 points)**
Tu 22-Nov	**Lab 6** **Reading: Lab 6**	
Th 24-Nov	**NO CLASS: THANKSGIVING BREAK**	
Tu 29-Nov	**More Neanderthals / Paleogenetics** **Reading: RHO Ch 13: pp. 534-587**	**Lab 6 (30 points)**
Th 1-Dec	**Anatomically modern humans, *Homo floresiensis* and *Homo naledi*** **Reading: RHO Ch 12 (all)** **Reading: E Reserve # 15: Eve's Tale**	
Tues 6-Dec	**ZOOM Optional Review During Regular Class Time; Zoom link TBA**	
FRIDAY 9-DEC	**FINAL EXAM: EMPHASIZES WEEKS 11-16** **NOTE TIME 4-5:45 PM; PLACE IS REGULAR CLASSROOM**	**EXAM 3 (120 pts)**

Reference List for Anthropology 3300

1. Conroy, GC and Pontzer, H. *Reconstructing Human Origins*. 2012. Third Edition. New York and London: W.W. Norton, 2012.

   Note: This textbook is said by the authors to be written for anthropology undergraduates and graduates.

2. Multiple Selections: Dawkins, R. (2004). *The Ancestor's Tale: A Pilgrimage to the Dawn of Evolution.* 1st Mariner Books ed. Boston, Mariner.

   Note: These selections include: The Salamander's Tale (Reading 1), The Narrowmouth's Tale (Reading 2), The Orangutan's Tale (Reading 7), Littlefoot's Tale (Reading 8), Epilogue to Littlefoot's Tale (Reading 9), and Eve's Tale (Reading 15).

3. Excerpts on primate origins (Readings 3 and 6) from a textbook by Cartmill, M and Smith, FH. *The Human Lineage*. Vol. 2. John Wiley & Sons, 2009.

   Note this textbook is said by the authors to be "aimed at advanced undergraduates and postgraduates."

4. Sargis EJ. Primate origins nailed. *Science*. 2002 Nov 22;298(5598):1564-5. (Reading 4).

5. Bloch JI, Boyer DM. Response to comment on" Grasping primate origins". *Science*. 2003 May 2;300(5620):741. (Reading 5).

6. Gibbons A. A new kind of ancestor: *Ardipithecus* unveiled. *Science*. 2009 October 2; 326: 36-40. (Reading 10).

7. Gibbons, A. Skeletons present an exquisite paleo-puzzle. *Science*. 2011 September 9; 333(6048): 1370-1372. (Reading 11).

8. Daegling DJ, Judex S, Ozcivici E, Ravosa MJ, Taylor AB, Grine FE, Teaford MF, Ungar PS. Viewpoints: feeding mechanics, diet, and dietary adaptations in early hominins. *American Journal of Physical Anthropology*. 2013 Jul;151(3):356-71. (Reading 12).

9. Gore R. The first pioneer? A new find shakes the human family tree. *National Geographic*. 2002 Aug;202(2). (Reading 13).

10. Gibbons , A. Stunning Skull Gives a Fresh Portrait of Early Humans. *Science*. 2013 October 18; 342: 297-298. (Reading 14).

GE Theme course submission worksheet: Origins & Evolution

Overview

Courses in the GE Themes aim to provide students with opportunities to explore big picture ideas and problems within the specific practice and expertise of a discipline or department. Although many Theme courses serve within disciplinary majors or minors, by requesting inclusion in the General Education, programs are committing to the incorporation of the goals of the focal theme and the success and participation of students from outside of their program.

Each category of the GE has specific learning goals and Expected Learning Outcomes (ELOs) that connect to the big picture goals of the program. ELOs describe the knowledge or skills students should have by the end of the course. Courses in the GE Themes must meet the ELOs common for **all** GE Themes and those specific to the Theme, in addition to any ELOs the instructor has developed specific to that course. All courses in the GE must indicate that they are part of the GE and include the Goals and ELOs of their GE category on their syllabus.

The prompts in this form elicit information about how this course meets the expectations of the GE Themes. The form will be reviewed by a group of content experts (the Theme Advisory) and by a group of curriculum experts (the Theme Panel), with the latter having responsibility for the ELOs and Goals common to all themes (those things that make a course appropriate for the GE Themes) and the former having responsibility for the ELOs and Goals specific to the topic of **this** Theme.

Briefly describe how this course connects to or exemplifies the concept of this Theme (Origins & Evolution)

In a sentence or two, explain how this class "fits' within the focal Theme. This will help reviewers understand the intended frame of reference for the course-specific activities described below.

(enter text here)

Anthropology 3300 is about human origins and hominin evolution as evidenced by the fossil record, genetics, and comparative biology. We trace the evolution of human anatomy (especially related to bipedalism and brain evolution), diet, life history characteristics, behavior and material culture through time. The focus of the first third of the course is on basic principles and methods of paleoanthropology and the evolution of the major primate taxonomic grouping to which humans belong. Specific topics in the first third of the course include dating methods, methods of reconstructing past climates, basic evolutionary principles, taxonomy, cladistic analysis, the living primates as anatomical and behavioral models for fossil species, the origins of the primate order, the evolution of anthropoid primates, and hominoid (or ape) diversification during the Miocene. The remaining two thirds of the course focuses on the last 7 million years of human evolution, from the earliest possible bipeds to Homo sapiens. The is an essential course in the Origins and Evolution Theme, as it enables students to gain insight into the evolution of human biology, behavior, and evolving material culture. Students will gain these insights through lectures, labs, readings, and discussions.

Connect this course to the Goals and ELOs shared by *all* Themes

Below are the Goals and ELOs common to all Themes. In the accompanying table, for each ELO, describe the activities (discussions, readings, lectures, assignments) that provide opportunities for students to achieve those outcomes. The answer should be concise and use language accessible to colleagues outside of the submitting department or discipline. The specifics of the activities matter—listing "readings" without a reference to the topic of those readings will not allow the reviewers to understand how the ELO will be met. However, the panel evaluating the fit of the course to the Theme will review this form in conjunction with the syllabus, so if readings, lecture/discussion topics, or other specifics are provided on the syllabus, it is not necessary to reiterate them within this form. The ELOs are expected to vary in their "coverage" in terms of number of activities or emphasis within the course. Examples from successful courses are shared on the next page.

Goal 1: Successful students will analyze an important topic or idea at a more advanced and in-depth level than the foundations. In this context, "advanced" refers to courses that are e.g., synthetic, rely on research or cutting-edge findings, or deeply engage with the subject matter, among other possibilities.

Goal 2: Successful students will integrate approaches to the theme by making connections to out-of-classroom experiences with academic knowledge or across disciplines and/or to work they have done in previous classes and that they anticipate doing in future.

	Course activities and assignments to meet these ELOs
ELO 1.1 Engage in critical and logical thinking.	Throughout lecture, lab, readings and discussions, students engage in critical and logical thinking about the origins and evolution of humans. a) Lectures are quite interactive, such that students are asked to observe features of fossil forms that are displayed, often using 3D models, to assess similarities and differences and whether one fossil species makes a better candidate ancestor than another. One place we do this is in the lectures on early hominin australopiths –students are asked to comment on apparent shared derived features with the genus Homo (here they are being asked to use the logic of cladistic analysis).
ELO 1.2 Engage in an advanced, in-depth, scholarly exploration of the topic or ideas within this theme	This course is an advanced, in-depth, and scholarly treatment of human origins and evolution. It goes far beyond our introductory course that includes this topic. It does so in its level of detail, complexity of concepts taught, requirement for analysis (interactive lectures, labs and discussion), and requirement for critical thought (interactive lectures an discussion). Here is one example: While the introductory course might mention the "Running Hypothesis" for human evolution, here we take undertake an in-depth and critical examination of this hypothesis. First, I lecture in detail on the anatomy cited in support of this hypothesis and then I show the students a short CARTA talk by the originator of this hypothesis -- Prof. Dan Lieberman (Harvard University). After this lecture and video, we engage in a whole class discussion of the strengths and weaknesses of this hypothesis. Throughout this discussion students are prompted to consider theoretical and empirical issues. They are then asked on an exam to evaluate this hypothesis. This exam question serves as both an assessment of whether they have thought deeply and critically about this hypothesis as well as a further learning tool in that students gain practice synthesizing and evaluating issues related to this hypothesis.
ELO 2.1 Identify, describe, and synthesize approaches or experiences.	Students are asked to identify,describe and synethesize approaches thorughout the course. For example, on the topic of what our early ancestors ate, students are first exposed to what we can infer from the anatomy. They are exposed to this approach to reconstructing diets in Labs 1 and 5. Following this lab is a lecture on methods that allow paleoanthropologists to infer what was actually eaten during the lifetime of a fossil organism. One of these methods makes use of stable carbon isotopes to discern whether our ancestors ate certain types of plants. The data derived from this method challenge past inferences made from the analysis of tooth and jaw anatomy. In Discussion 5, on "Dietary Debates" students are asked to evaluate these different lines of evidence (anatomy vs. direct indicators of diet, such as stable carbon isotopes present in tooth enamel) and what each can and cannot reveal about the diets of our ancestors.
ELO 2.2 Demonstrate a developing sense of self as a learner through reflection, self-assessment, and creative work, building on prior experiences to respond to new and challenging contexts.	The entire course is designed to establish foundational concepts in the first third that are then applied to new and challenging contexts confronted in labs and discussions. For example, students are asked to apply cladistic reasoning, that they learn in the first third of the course, within various lab exercises and discussions. Thus, for example, we ask students to analyze whether knuckle-walking was present in the common ancestor to African apes and humans, or if knuckle-walking homoplastic in chimps and gorillas. Students are asked to evaluate this idea with respect to the parsimony concept in cladistics. In another example, in Discussion 3, students evaluate possible anatomical pre-cursors to bipedalism. In this discussion students are asked to reflect on what they know from the earlier part of the course that will help them to address this question. This is just one way that students discover how their previous learning can be applied to new and challenging contexts.

Example responses for proposals within "Citizenship" (from Sociology 3200, Comm 2850, French 2803):

***ELO 1.1** Engage in critical and logical thinking.*	*This course will build skills needed to engage in critical and logical thinking about immigration and immigration related policy through:* *Weekly reading response papers which require the students to synthesize and critically evaluate cutting-edge scholarship on immigration;* *Engagement in class-based discussion and debates on immigration-related topics using evidence-based logical reasoning to evaluate policy positions;* *Completion of an assignment which build skills in analyzing empirical data on immigration (Assignment #1)*

	Completion 3 assignments which build skills in connecting individual experiences with broader population-based patterns (Assignments #1, #2, #3) *Completion of 3 quizzes in which students demonstrate comprehension of the course readings and materials.*
***ELO 2.1** Identify, describe, and synthesize approaches or experiences.*	*Students engage in advanced exploration of each module topic through a combination of lectures, readings, and discussions.* *<u>Lecture</u>* *Course materials come from a variety of sources to help students engage in the relationship between media and citizenship at an advanced level. Each of the 12 modules has 3-4 lectures that contain information from both peer-reviewed and popular sources. Additionally, each module has at least one guest lecture from an expert in that topic to increase students' access to people with expertise in a variety of areas.* *<u>Reading</u>* *The textbook for this course provides background information on each topic and corresponds to the lectures. Students also take some control over their own learning by choosing at least one peer-reviewed article and at least one newspaper article from outside the class materials to read and include in their weekly discussion posts.* *<u>Discussions</u>* *Students do weekly discussions and are given flexibility in their topic choices in order to allow them to take some control over their education. They are also asked to provide* *information from sources they've found outside the lecture materials. In this way, they are able to* *explore areas of particular interest to them and practice the skills they will need to gather information* *about current events, analyze this information, and communicate it with others.* *Activity Example: Civility impacts citizenship behaviors in many ways. Students are asked to choose a TED talk from a provided list (or choose another speech of their interest) and summarize and evaluate what it says about the relationship between civility and citizenship. Examples of Ted Talks on the list include Steven Petrow on the difference between being polite and being civil, Chimamanda Ngozi Adichie's talk on how a single story can perpetuate stereotypes, and Claire Wardle's talk on how diversity can enhance citizenship.*
***ELO 2.2** Demonstrate a developing sense of self as a learner through reflection, self-assessment, and creative work, building on prior experiences to respond to new and challenging contexts.*	*Students will conduct research on a specific event or site in Paris not already discussed in depth in class. Students will submit a 300-word abstract of their topic and a bibliography of at least five reputable academic and mainstream sources. At the end of the semester they will submit a 5-page research paper and present their findings in a 10-minute oral and visual presentation in a small-group setting in Zoom.* *Some examples of events and sites:* *The Paris Commune, an 1871 socialist uprising violently squelched by conservative forces*

	Jazz-Age Montmartre, where a small community of African-Americans–including actress and singer Josephine Baker, who was just inducted into the French Pantheon–settled and worked after World War I. *The Vélodrome d'hiver Roundup, 16-17 July 1942, when 13,000 Jews were rounded up by Paris police before being sent to concentration camps* *The Marais, a vibrant Paris neighborhood inhabited over the centuries by aristocrats, then Jews, then the LGBTQ+ community, among other groups.*

Goals and ELOs unique to Origins & Evolution

Below are the Goals and ELOs specific to this Theme. As above, in the accompanying Table, for each ELO, describe the activities (discussions, readings, lectures, assignments) that provide opportunities for students to achieve those outcomes. The answer should be concise and use language accessible to colleagues outside of the submitting department or discipline. The ELOs are expected to vary in their "coverage" in terms of number of activities or emphasis within the course. Examples from successful courses are shared on the next page.

GOAL 3: Successful students will appreciate the time depth of the origins and evolution of natural systems, life, humanity, or human culture, and the factors that have shaped them over time.

GOAL 4: Successful students will understand the origins and evolution of natural systems, life, humanity, or human culture, and the factors that have shaped them over time.

	Course activities and assignments to meet these ELOs
ELO 3.1 Illustrate their knowledge of the time depth of the universe, physical systems, life on earth, humanity or human culture by providing examples or models.	Illustrating the time depth of humanity is something we do throughout the course, especially in lab. Students are asked to construct timelines of different species in the different labs in which we examine them. They also must illustrate where these species fall on a timeline of the evolution of life on earth.
ELO 3.2 Explain scientific methods used to reconstruct the history of the universe, physical systems, life on earth, humanity or human culture and specify their domains of validity.	When we cover dating methods as well as methods of paleo-ecological reconstruction, students are asked to state in which contexts these methods are most vs. least appropriate. For example, they are asked to explain over what range of time, and for what objects, different methods of chronological dating are appropriate. These ideas are reinforced throughout the course with checks for understanding when discussing different fossil sites – if, for instance, we are talking about fossils from East vs. South Africa, students are asked which dating methods are most appropriate. Students also must explain how the molecular clock works in the context of hominin origins and the origins of Homo sapiens.
ELO 3.3 Engage with current controversies and problems related to origins and evolution questions.	Most of the discussions focus on current controversies and problems. The readings for these discussions often cover different sides of these controversies or problems. For example, early on in the course, students read a debate between paleoanthropologists on an early putative primate fossil ancestor. There are two camps in this debate—one arguing for a direct ancestral linkage to later primates and one arguing that the fossil is not ancestral to later primates. In the discussion we have in class, students consider the pros and cons of the arguments that are made. In another example, on dietary debates in later hominins, students read, discuss, and evaluate two different points of view on how to interpret seemingly contradictory evidence of actual diet vs. dietary adaptation.
ELO 4.1 Describe their knowledge of how the universe, physical systems, life on Earth, humanity or human culture have evolved over time.	Students are asked to describe trends in human evolution throughout the course. In the last lab, Lab 6, students plot increases in cranial capacity in hominins over time. They are asked to describe how cranial capacities increased over time – did they do so gradually at a steady rate, or did they do so in a more punctuated manner and what does the pattern of evolutionary change suggest about how human intellectual capacity evolved?
ELO 4.2 Summarize current theories of the origins and evolution of the universe, physical systems, life on earth, humanity or human culture.	Students are asked to summarize and evaluate theories at various points throughout the term. For example, after our in-class discussion on the origins of bipedalism, students are asked on an exam to summarize some of the leading current explanations. Furthermore, they are then asked to suggest how they could use evidence from the fossil record or experiments on living primates to differentiate among these possibilities.