Syllabus for ANTH 1: Biological Anthropology

Course Information

Semester & Year: Fall 2022
Course ID & Section #: ANTH 1 E3391
Instructor's name: Justine M. Shaw, Ph.D.
Days and times: TTh 10:05-11:30am
Location: HU127
Number of units: 3.0

Instructor Contact Information

Office hours: by appointment (Canvas message or email to arrange)
Email address: justine-shaw@redwoods.edu
Canvas message: use the "Inbox" function

Catalog Description

This course introduces the concepts, methods of inquiry, and scientific explanations for biological evolution and their application to the human species. Issues and topics will include, but are not limited to, genetics, evolutionary theory, human variation and biocultural adaptations, comparative primate anatomy and behavior, and the fossil evidence for human evolution. The scientific method serves as foundation of the course. Students may also enroll the optional lab component, ANTH 1B.

Course Student Learning Outcomes *(from course outline of record)*

1. Describe evolutionary theory and how it applies to past and present hominins.
2. Identify the biological and cultural factors responsible for past and present hominin variation.
3. Describe the difference between the scientific process and non-scientific claims.
4. Demonstrate an understanding of the classification, morphology and behavior of living primates and past hominins.

Accessibility

College of the Redwoods is committed to making reasonable accommodations for qualified students with disabilities. If you have a disability or believe you might benefit from disability-related services and accommodations, please contact your instructor or Disability Services and Programs for Students (DSPS). Students may make requests for alternative media by contacting DSPS based on their campus location:

- Eureka: 707-476-4280, student services building, 1st floor
- Del Norte: 707-465-2324, main building near library
- Klamath-Trinity: 530-625-4821 Ext 103

If you are taking online classes DSPS will email approved accommodations for distance education classes to your instructor. In the case of face-to-face instruction, please present your written accommodation request to your instructor at least one week before the needed accommodation so that necessary arrangements can be made. Last minute arrangements or post-test adjustments usually cannot be accommodated.

Student Support

Good information and clear communication about your needs will help you be successful. Please let your instructor know about any specific challenges or technology limitations that might affect your participation in class. College of the Redwoods wants every student to be successful.

Evaluation & Grading Policy

Course Requirements:

Quizzes	15% (2 chances to take each)
Test 1	15%
Test 2	15%
Test 3	15%
Discussion Postings	15% (lowest 2 are dropped)
Project 1	10%
Project 2	15%

Final Exam replaces lowest test score (lowest of 4 tests is dropped)

Letter grades for the course will be assigned according to the following:

A=94-100%
A-=90-93%
B+=87-89%
B=84-86%
B-=80-83%
C+=77-79%
C=70-76%
D=60-69%
F=<60%

Late Work

I will accept one discussion posting, one quiz or test, and one written project late; these must be submitted within one week of the original deadline. You must contact me to take advantage of this option and have a plan to avoid future late work; once we have communicated and you convince me that you'll get back on track, I will reopen the assignment. I strongly suggest that you save this option for a genuine emergency that is beyond your control and that you save this option as long as possible. If you can show me written documentation of a larger situation beyond your control, and we can then negotiate a firm plan and date to have the work made up by, I may accept any additional late work. No late work can be uploaded unless/ until I go into Canvas and reopen the assignment for you.

Be aware that Canvas only permits a certain number of assignments to be submitted at once, so if multiple students are submitting at/ near 11:59pm on a due date, the system will not accept some of the submissions. You may use one of your (above) late work options to submit, but if you're out of these then you may not be able to submit your work. I don't recommend last-minute uploads.

Drop Policy

Log in to the course on Canvas and complete the first discussion posting by the end of the first week (by 11:59pm on Sunday, August 28). If you have not participated in the class by submitting an assignment and there is a wait list, you will be dropped as a "no show". If there is no wait list, you have an additional week to log in and start participating by submitting an assignment (by 11:59pm on Sunday, September 4) without being dropped. However, you will be very behind at this point, and will probably struggle to catch up with the rest of the class.

If you have missed five graded assignments in a row, I will drop you from the course. Students who have missed a total of eight assignments prior to the drop date without making a plan with me to get caught up will also be dropped. Either situation will mean that you have missed core concepts needed to successfully complete the course.

Admissions deadlines & enrollment policies

Fall 2022 Dates

- *Classes begin: 08/20/22*
- *Last day to add a class: 08/26/22*
- *Last day to drop without a W and receive a refund: 09/02/22*
- *Census date (or 20% into class duration): 09/06/22*
- *Last Day to file P/NP (only courses where this is an option): 09/16/22*
- *Last day to petition to graduate or apply for certificate: 10/27/22*
- *Last day for student-initiated W (no refund): 10/28/22*
- *Last day for faculty-initiated W (no refund): 10/28/22*
- *Final examinations: 12/10/22 – 12/16/22*
- *Semester ends: 12/16/22*
- *Grades available for transcript release: approximately 01/06/22*

Academic dishonesty

In the academic community, the high value placed on truth implies a corresponding intolerance of scholastic dishonesty. In cases involving academic dishonesty, determination of the grade and of the student's status in the course is left primarily to the discretion of the faculty member. In such cases, where the instructor determines that a student has demonstrated academic dishonesty, the student may receive a failing grade for the assignment and/or exam and may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct (AP 5500) is available on the College of the Redwoods website. Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the College Catalog and on the College of the Redwoods website. Ignorance about plagiarism is not a defense. To ensure you understand plagiarism, take this tutorial built by Indiana University Bloomington: https://www.indiana.edu/~istd/sitemap.html. The tutorial, if done well, can take up to 2 hours.

Disruptive behavior

Student behavior or speech that disrupts the instructional setting will not be tolerated. Disruptive conduct may include, but is not limited to: unwarranted interruptions; failure to adhere to instructor's directions; vulgar or obscene language; slurs or other forms of intimidation; and physically or verbally abusive behavior. In such cases where the instructor determines that a student has disrupted the educational process, a disruptive student may be temporarily removed from class. In addition, the student may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct (AP 5500) is available on the College of the Redwoods website. Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the College Catalog and on the College of the Redwoods website.

Inclusive Language in the Classroom

College of the Redwoods aspires to create a learning environment in which all people feel comfortable in contributing their perspectives to classroom discussions. It therefore encourages instructors and students to use language that is inclusive and respectful.

Setting Your Preferred Name in Canvas

Students have the ability to have an alternate first name and pronouns to appear in Canvas. Contact Admissions & Records to request a change to your preferred first name and pronoun. Your Preferred Name will only be listed in Canvas. This does not change your legal name in our records. See the Student Information Update form.

Canvas Information

If using Canvas, include navigation instructions, tech support information, what Canvas is used for, and your expectation for how regularly students should check Canvas for your class.
Log into Canvas at https://redwoods.instructure.com
Password is your 8 digit birth date
For tech help, email its@redwoods.edu or call 707-476-4160
Canvas Help for students: https://webapps.redwoods.edu/tutorial/

Canvas online orientation workshop: Canvas Student Orientation Course (instructure.com)

Community College Student Health and Wellness

Resources, tools, and trainings regarding health, mental health, wellness, basic needs and more designed for California community college students, faculty and staff are available on the California Community Colleges Health & Wellness website.

Wellness Central is a free online health and wellness resource that is available 24/7 in your space at your pace.

Students seeking to request a counseling appointment for academic advising or general counseling can email counseling@redwoods.edu.

Emergency Procedures / Everbridge

College of the Redwoods has implemented an emergency alert system called Everbridge. In the event of an emergency on campus you will receive an alert through your personal email and/or phones. Registration is not necessary in order to receive emergency alerts. Check to make sure your contact information is up-to-date by logging into WebAdvisor https://webadvisor.redwoods.edu and selecting 'Students' then 'Academic Profile' then 'Current Information Update.'

Please contact Public Safety at 707-476-4112 or security@redwoods.edu if you have any questions. For more information see the Redwoods Public Safety Page.

In an emergency that requires an evacuation of the building anywhere in the District:

- Be aware of all marked exits from your area and building
- Once outside, move to the nearest evacuation point outside your building
- Keep streets and walkways clear for emergency vehicles and personnel

Do not leave campus, unless it has been deemed safe by the campus authorities.

Eureka Campus Emergency Procedures

Please review the campus emergency map for evacuation sites, including the closest site to this classroom (posted by the exit of each room). For more information on Public Safety go to the Redwoods Public Safety Page It is the responsibility of College of the Redwoods to protect life and property from the effects of emergencies within its own jurisdiction.

In the event of an emergency:

1. Evaluate the impact the emergency has on your activity/operation and take appropriate action.
2. Dial 911, to notify local agency support such as law enforcement or fire services.
3. Notify Public Safety 707-476-4111 and inform them of the situation, with as much relevant information as possible.
4. Public Safety shall relay threat information, warnings, and alerts through the Everbridge emergency alert system, Public address system, and when possible, updates on the college website, to ensure the school community is notified.
5. Follow established procedures for the specific emergency as outlined in the College of the Redwoods Emergency Procedure Booklet, (evacuation to a safe zone, shelter in place, lockdown, assist others if possible, cooperate with First Responders, etc.).
6. If safe to do so, notify key administrators, departments, and personnel.
7. Do not leave campus, unless it is necessary to preserve life and/or has been deemed safe by the person in command.

Student Support Services

The following online resources are available to support your success as a student:

- CR-Online (Comprehensive information for online students)
- Library Articles & Databases
- Canvas help and tutorials
- Online Student Handbook

Counseling offers assistance to students in need of professional counseling services such as crisis counseling.

Learning Resource Center includes the following resources for students

- Academic Support Center for instructional support, tutoring, learning resources, and proctored exams. Includes the Math Lab & Drop-in Writing Center
- Library Services to promote information literacy and provide organized information resources.
- Multicultural & Diversity Center

Special programs are also available for eligible students include

- Extended Opportunity Programs & Services (EOPS) provides services to eligible income disadvantaged students including: textbook award, career academic and personal counseling, school supplies,

transportation assistance, tutoring, laptop, calculator and textbook loans, priority registration, graduation cap and gown, workshops, and more!

- The TRiO Student Success Program provides eligible students with a variety of services including trips to 4-year universities, career assessments, and peer mentoring. Students can apply for the program in Eureka or in Del Norte
- The Veteran's Resource Center supports and facilitates academic success for Active Duty Military, Veterans and Dependents attending CR through relational advising, mentorship, transitional assistance, and coordination of military and Veteran-specific resources.
- Klamath-Trinity students can contact the CR KT Office for specific information about student support services at 530-625-4821

ANTH 1 Course Logistics

Required Materials

Textbook title: Essentials of Biological Anthropology
Edition: 4th
Author: Clark Spencer Larsen
ISBN: 978-0-393-66743-1

Other online readings will be assigned in Canvas.

Other requirement: ability to use Canvas to access materials and post to discussions, upload files, use a word processing program, read college-level texts.

Necessary Computer Skills and Technology Requirements

Computer Skills:

Online courses require adequate computer skills. You must be able to:

- navigate the course Learning Management System (Canvas)
- receive and respond to your CR email and Canvas messages
- download and upload files to Canvas
- use a word processor program (such as Microsoft Word or Google Docs)
- watch lecture videos and other class videos
- open and read pdf documents

It is your responsibility to meet the technological demands of the course, which may often include troubleshooting technological adventures.

Technology Requirements (computer, other hardware, and software):

- Computers: You should plan on doing the majority of your work (especially exams and assignments) from a reasonably recent model notebook or desktop computer (Mac or PC). Do NOT plan to participate in this class solely from a portable device.
- Portable Devices: You can use recent model portable devices (such as Android or iOS phones & tablets) for some things in this class. If you do decide to use your portable device for some of your class work, use the free Canvas app (called "Canvas by Instructure") available in iTunes (for iOS) and the Google Play Store (for Android).
- Do not try to connect to Canvas using a web browser on a portable device. Your experience with Canvas will be a lot better using the app.

- High-speed internet: You should have high-speed internet (such as broadband) service from cable, DSL, or satellite providers as there are video lectures as part of this course, and they require this speed. You need to have reliable access to the internet for the duration of the course. Anticipate problems with your computer and internet access (including power outages) by not waiting until the last minute to submit assignments. It is your responsibility to meet the class deadlines.
- Browsers - You will need to use the most recent version of one of the following browsers in order to best access the course and activities; Mozilla Firefox, Chrome, or Safari. Do not use Internet Explorer as it does not work properly with Canvas.
- Word Processing Software - You may need Microsoft Word or a compatible software program in order to create Word or Word compatible documents.
    - All students at CR have access to Office 365 (Word, PowerPoint, Excel, and OneNote) free with a valid @mycr.redwoods.edu or @redwoods.edu email account. Go to https://office.com/getoffice365 to get started.
    - There are free options such as Google docs (this requires a gmail account) or OfficeLibre.
- Acrobat Reader – Adobe Acrobat Reader DC is a free program that will allow you to read and download pdf files.

Communication Guidelines

Emails and Canvas Messages:

Email: justine-shaw@redwoods.edu or message me through the messaging tool ("Inbox") in Canvas. If you email me, please include "ANTH1_E3391" in the subject line so that I know which class section you are in. These are generally going to be the fastest way to hear back from me because both show up in my CR email inbox, rather than having to wait until I make my way through each class section's discussion forum or assignment comments.

Emails and Canvas messages will generally hear back from me in less than 48 hours (often much more quickly), but any questions posted in a discussion forum or assignment comment area will wait until I find them in these areas. Under normal circumstances (barring illness, power outage, Canvas technical issue, or internet outage), I will look through current discussion forums at least once a day M-F and 1-2 times over the weekend. Comments posted within assignments aren't seen by me until I am grading the assignment, so this is not a good place to put questions for which you want a rapid reply.

Electronic Devices:

I recognize that many students use laptops and tablets to take notes, and may use these devices or cell phones to access assigned readings or enter reminders on e-calendars; all of these uses are permitted. However, using electronic devices for other purposes (texting, social media, coursework for another class, etc.) in class is not allowed. If you are expecting an important call or text, please leave your device on silent or vibrate and exit the classroom to reply. Any students using electronic devices for other purposes will have their devices confiscated by the professor for the rest of the class period or be asked to leave for the remainder of the class period; students repeatedly using devices for non-permitted purposes will be removed from class for the remainder of that class period and the next class period(s).

Netiquette:

Finally, please be polite. In an online environment, this is called netiquette. Sometimes it is difficult to convey nuance or humor through written (electronic) communication. Just be respectful to your classmates and be kind, considerate, and forgiving in all of your posts in the discussion forums. Adhere to the same standards of behavior online that you follow in real life, because you don't want to forget: Real humans read your posts. After all, our Canvas space is our classroom, and we want to create a positive, collaborative, interesting community. To learn more about netiquette, read 10 Netiquette Guidelines Online Students Need to Know.

Reading:

Readings will provide the basis for understanding the lectures and should be completed before watching each week's lecture. The "Reading List" page at the end of this syllabus contains the assignments for each week. Readings from the textbook are listed as "Larsen Ch. X" and readings on Canvas are listed as abbreviated titles here and in Canvas.

Discussion postings:

By each Sunday night when an online article is assigned for the week, you will submit two discussion questions related to that article. Your questions must be submitted electronically on Canvas through the "Discussions" tool prior to 11:59pm on each Sunday for which an article has been assigned. I will pick several questions from those posted for the class to discuss in small groups during our lecture meeting.

There are two required questions for each posting.

- The questions should relate directly to the particular reading being assigned/ be customized for each article. (NOT posting every week "Does this article change the way you think about archaeology?")
- These should be questions prompting critical thinking and discussion for a group of students in the class. This means they should go beyond just repeating information from the reading as an answer. (NOT "What does the author say about…?")
- They should not be questions that students can only address with wild speculations that cannot be assessed with available evidence. (NOT "If we could time travel…")
- They should not be questions that students would need to do outside research (written sources or experiments), beyond class material already covered, to address. (NOT "What other research has been done on this topic?")

Quizzes:

A short ten-question quiz with objective questions (matching, true/false, and/ or multiple choice) will be assigned most weeks, other than the weeks when tests or major assignments are due. Unless you have DSPS documentation that you have shown me giving you additional time, you will have ten minutes to take each quiz. I will allow each student two attempts for each quiz, in case you are unexpectedly interrupted on your first attempt. Keep in mind that this is a face-to-face class, however, and if too few students are coming to class, then in-person quizzes will be given for the remainder of the semester.

Tests and Final Exam:

Tests: Each of the three tests will cover approximately 1/3 of the course material (the first test will cover material since the start of the semester, the second test will cover material since the first test, and the third test will cover material since the second test). Each test will consist of 40 objective questions (multiple choice, matching, and T/F) worth 2 points each and contain 2 essay questions that should take approximately one page each to respond to. There is a study guide for these tests on the last pages of this syllabus.

Final Exam: The final exam for this course is optional since the lowest grade of Test 1, Test 2, Test 3, and the Final Exam is dropped. The final will be cumulative and will contain only two long essay questions (4-5 paragraph responses each). The final exam may not be substituted for quizzes, discussion postings, or projects. In Canvas, the tests and final are set up as a "drop the lowest" option, so Canvas will adjust which test counts each time an exam is taken. You may need to use the grade calculation option in Canvas to decide whether you should take the final, keeping in mind your grade on the final will be a zero if you do not take it.

ANTH 1 Written Projects

Each student is required to compete two projects with at least 5 pages of text each, double-spaced, typed in a standard 12-point font (such as Arial or Times New Roman) with one-inch margins. Detailed instructions for each of these

projects are provided later in the syllabus (see "Reading List" for assignment dates and deadlines). These projects must be submitted via the Canvas system's assignments listed in the course modules. Papers should not be submitted through my email, as an attachment to a comment, through the Canvas messaging system, or through a hard copy. Canvas only accepts doc, docx, pdf, and jpg files; "pages" files (generated by some Apple applications) or links to Google docs cannot be opened in Canvas. You can email me a draft for feedback before the due date but may not redo the project after it has been formally graded.

Both projects will be uploaded to Canvas through the assignment and both must:

- Be a minimum of five double-spaced pages of text in a standard 12-point font with one-inch margins and no header or footer. Any text besides your written paper itself (such as your name, the class title, page numbers, references cited page, etc.) won't count towards this minimum. If you're aiming to get an A or B, you will very likely need to do more than the minimum on a project.
- Include anthropological terms and examples from class lectures, the textbook, videos, and other course content.
- Display critical thinking and analysis, not just using terms as simple labels. Although you should use as many terms as appropriate and possible, a paper that uses lots of terms merely as labels won't be better than one that uses fewer but displays a thorough, critical analysis of an issue or situation.
- Use correct grammar and spelling and be written in an organized manner with flowing text arranged in sentences and paragraphs. It would be a good idea to use MS Word's grammar and spelling checking functions, as well as to use CR's writing assistance available online through https://redwoods.libguides.com/Tutoring.
  You are also welcome to message me with a draft or questions, but be sure to do this before the due date. I'm not staying up late because you procrastinated!
- Be sure to look at the Canvas rubric for each assignment before starting your work and again before finalizing it, so that you're aware of how the grade for each part of the assignment is weighted. You can access this by clicking on the assignment itself on the submission reminder or in the "Assignments" area of our class Canvas site.
- When you receive your grade, be sure to look at the rubric and, in some cases, separate instructor comments. These are accessed in the Canvas gradebook, by clicking on the clipboard icon (rubric and in-rubric comments) and textbox icon (separate instructor comments) next to your grade. Most, if not all, comments will be within the rubric. I tend to only use the separate comment function if I need to make an overall statement that pertains to your whole submission.
- You must use at least 4 different sources besides your class materials (in addition to Larsen and articles and links that the instructor put on Canvas); these 4+ sources also must be from a non-website, non-video source (aka at least four journals, books, interviews with zookeepers, articles or e-books on online library databases). You may not use Wikipedia as a source, although you may use other web sites or videos in addition to the required other sources. The goal of using these external sources is to access at least some "primary" sources on specific topics produced by researchers working in the field that are then peer-reviewed; using only general webpages won't give you enough details to do well on the project.
- You need to cite these sources within the text itself and provide a references cited page at the end (which doesn't count towards your total text length). Not only quotes need to be cited; ANY information, ideas, definitions, data, or other materials taken from an outside source must be cited. If you refer to a specific example, even just in passing, it needs to be cited. You may use any citation method you are familiar with and can get help with citations through the writing tutoring above or through https://redwoods.libguides.com/citations.

Project 1: Primate Observation of a Focal Individual

1) Either use an online zoo webcam (such as, but not limited to, the Houston Zoo Gorilla Habitat Cam, the San Diego Zoo Baboon or Ape Cam, or a primate cam from Explore Live Cams) or make a visit to the Sequoia Park Zoo (or other zoo) to determine what primates are present and select a species and individual that you would like to

observe. Be sure to note any distinctive markings so that you may locate this individual animal in the future if you plan to make multiple observations. You will need to log a total of two hours observing a single individual.

2) Find the literature on activities that this species does in the wild. Many sources are available in the CR library and through its online databases, as well as on Canvas in the "modules" area. In addition to getting general information on the species' natural setting, diet, group composition, behaviors, and way of life, pay particular attention to the amount of time that wild animals of this species typically spend on specific activities in a given day. You will need an activity budget for wild members of the species in order to do well on this project. This research will also help you to generate a list of the range of behaviors to look for in a given species. Be sure to write down the complete citation for any source you use (quotes or any paraphrased information) to include with your paper.

3) Return to the zoo/ webcams multiple times if possible, but at least once, for a total of at least 2 hours. During this time, you will put together an "activity budget" of the kinds of activities you observed one individual do over the observation period. In your observations, keep a running minute-by-minute tally of what your focal individual is doing. When you are finished, add similar activities up to get your activity budget with a percent for each activity. Your activity budget can be provided in text or graphic form, although percentages must be included in some manner.

   An example would be:

   Eating = 20 minutes or 12.5% of the total observation time of 120 minutes.
   Grooming self = 16 minutes or 10% of the total

   Playing = 32 minutes or 20% of the total….etc.
   (you must use <u>more</u> than 5 categories to provide a detailed breakdown of activities and get full credit for this part of the project)

4) Next, compare your focal individual's activity budget with the activity budget of wild members of the species from your readings. Also compare specific information about habitat size and contents, weather, nearby species, diet, group composition, predators, the life histories of individuals in captivity, and other ways in which captive and wild members of a species vary. How are they different? Similar? Why do you think they are different/ similar? Be sure to cover, at minimum, five unrelated areas of analysis in detail. These analysis areas could be the specific behaviors you are comparing (such as amount of time eating) or they could be more topical, such as group composition or threats to health.

5) Write up your findings in a typed paper minimally 5 double-spaced pages long in a standard 12-point font (Arial or Times New Roman) with 1-inch margins. Provide in-text citations (MLA or other standard) of all materials used in your paper (quotes and any other information taken from outside sources) as well as in a "references cited" section at the end of the paper for all sources used/ cited. Also, be sure to include a copy of your individual's time budget (citations and activity budget don't count towards the 5-page total). You are welcome, but not required, to provide sketches, photographs, or other illustrations to help clarify your work (but again, they aren't going to count towards the 5-page minimum).

Project 2: Hominin Phylogenetic Diagram

In this course, you will learn that many aspects of early hominin studies are far from "set in stone". Considerable controversy still exists about much of our "family tree," due to small samples and spotty preservation of the fossil record. Additionally, biological anthropologists considering the same evidence, but stressing different traits, may construct entirely different scenarios and new evidence is continually being discovered. Therefore, a good understanding of evolution, genetics, morphology, and the fossil record is needed to critically evaluate any set of proposed relationships.

1) In order to sort out hominin evolution for yourself, Project 2 requires you to create a phylogenetic hominin diagram, which must include a time scale and show the relationships between all hominin species, not a cladistic diagram or timeline only. Your **diagram is to include all of the genera and species that you consider to be hominins** but no species that are not hominins (it should include those hominins that are not our direct ancestors, as well as our direct ancestors), also the approximate dates that each diverged and existed, and use lines to indicate ancestor/ descendant relationships between all species on the diagram. Dates may be indicated by providing a timescale on the side of your diagram or written next to each genus-species name. You may use one of the phylogenetic diagrams provided in Larsen or another source (cite this) or you may create your own scenario (citing basis for it). However, you may not turn in photocopied, scanned, or printed-off diagrams – **you must turn something you drew by hand or on the computer by yourself**. The diagram should be neat and intelligible, but it comprises only 10% of the project rubric, so don't spend most of your time drawing a beautiful work of art.

2) To successfully complete this task, you must work through several problems. A) How would you **define hominin**, **genus**, and **species**? You must use a definition accepted within the biological sciences (not just a dictionary definition), but there are varied definitions. B) How will you be applying each term in considering the fossil record? How much variation is possible/ acceptable within a species? and What sort of differences require samples to be classified as different species? When should species be lumped together or separated? How much variability can exist within a given genus? C) What traits do you consider to be most important in reconstructing each evolutionary relationship? Include this discussion at or near the start of your paper, before explaining your diagram.

3) While your diagram will include all species that you consider to be hominins, **your text will cover just one of three sets of hominins**. Your text will cover A) all hominins prior to 3mya (up to and including *A. afarensis*) that were covered in class lectures/ PowerPoints, OR B) all hominins after 3mya (after *A. afarensis*) and prior to the genus *Homo* that were covered in class lectures/ PowerPoints, OR C) all of the hominins in the genus *Homo* covered in class lectures/ PowerPoints. Your paper must contain detailed definitions of species, genus, and hominin that you will consistently apply throughout. It should also have detailed descriptions of each species covered in class/ Larsen/ my PowerPoint lectures for the third of your choice, whether or not you actually decided to include each species on your diagram. For any species/ genus covered in class (for your third) that you decided not to include (perhaps because of small sample size, because you weren't convinced it was fully bipedal, or because you don't think that it is distinct enough to be a separate species), you will still both describe it and also provide detailed arguments about why you did not include that particular species on your diagram. You also need to justify (for your third) why you related them to each other in the way that you did on your diagram. Don't just have disconnected descriptions of each species without telling how/ why they are related in a given way. To do well, each species described in your essay should contain many significant details beyond what was covered in class materials.

COURSE CALENDAR/ READING LIST

Week of	Topics and **Major** Items Due	To Read BEFORE Watching Lectures or Completing Assignments
8/22	What is anthropology? What is Biological Anthropology? **Quiz 1**	Larsen Ch. 1 Introductory Postings
8/29	Evolution: Constructing a Fundamental Scientific Theory **Quiz 2**	Larsen Ch. 2 "Evolution in Action"
9/5	Genetics: Reproducing Life and Producing Variation **Quiz 3**	Larsen Ch. 3 "Are You What Your Mother Ate?"
9/12	Genes and Their Evolution: Population Genetics **Quiz 4**	Larsen Ch. 4 "Got Culture?"
9/19	Biology in the Present: Other Living Primates **Quiz 5**	Larsen Ch. 6 "Do Animals Have Morals?"
9/26	Primate Sociality, Social Behavior, and Culture **Test 1 on 9/29**	Larsen Ch. 7
10/3	**Project 1 Due by 10/6 at 11:59pm**	
10/10	Fossils and Their Place in Time and Nature **Quiz 6**	Larsen Ch. 8 "Mary Leakey's Husband"
10/17	Primate Origins and Evolution: The First 50 Million Years **Quiz 7**	Larsen Ch. 9 "How Scientists Discovered"
10/24	Early Hominin Origins and Evolution: The Roots of Humanity **Quiz 8**	Larsen Ch. 10 "Oldest Stone Tools Yet"
10/31	The Origins and Evolution of Early *Homo* **Quiz 9**	Larsen Ch. 11 "Very Early Cooking"
11/7	**Test 2 on 11/8**	"Neanderthal Artists"
11/14	The Origins, Evolution, and Dispersal of Modern People **Project 2 Due by 11/17 at 11:59pm**	Larsen Ch. 12 "Ghostly Genes"
11/21	**Fall Break – no class**	
11/28	Our Past 10,000 Years: Agriculture, Population, Biology **Quiz 10**	Larsen Ch. 13 "Evolution of Diet"
12/5	Biology in the Present: Living People **Test 3 on 12/8**	Larsen Ch. 5 "Skin Deep"
	Final Exam – 12/15 (10:45-12:45)	

Note: I intend to promote an environment in this class in which all people are treated with dignity and respect. During the course of the semester, we may consider subjects with political and/ or ethical implications. Your tests, projects, and other assignments will not be evaluated based upon the opinion that you express about these issues. Instead, your grade will relate to your ability to analytically approach these issues and bring related anthropological materials to support your argument.

The instructor reserves the right to add, delete, or revise sections of this course or syllabus. Changes will be announced and posted on Canvas.

ANTH 1: Biological Anthropology

Review Sheet for Tests

Each of the three tests will consist of 40 objective questions (such as matching, multiple choice, and true/ false questions) worth 2 points each and two essay questions (for which you will be given one page each on the test and expected to write ~two paragraphs) worth 10 points each. Test 1 will cover material from the start of the class until Test 1. Test 2will cover material from Test 1 until Test 2. Test 3 will cover material from Test 2 until Test 3. The Final Exam will consist of two 4-5-paragraph essay questions.

To study for the tests, I suggest that you do the following:

- Remember what we have spent class time covering (PowerPoints, lecture content, discussions, videos) is going to be the most important material for the test.
- Go through each chapter of Larsen assigned for the test (see your syllabus for chapter numbers), noting all the terms and names in **bold**, which are also defined in the margins of the page. Make a list of these with a short definition for each. (Remember, to keep the exam reasonably short, I'm going to boil most definitions down to one phrase.) Writing these out will help to you memorize them. While you will not have to write out any definitions on the exam, you will have to know them well enough to select the definition from a list of possibilities or write "false" for an incorrect definition. Be sure to note the differences between superficially similar terms. Emphasize terms that were covered <u>in lecture</u> over those that were not mentioned in class.
- Read through the "Review" at the end of each chapter to help you decide what information from the chapter is most important.
- Go through your notes, noting the terms that are repeated in class <u>and</u> in your reading. These terms are considered by your instructor to be more important than terms not mentioned in class and are therefore more likely to be on the exam. Terms in the book that are not mentioned in class are less likely to be on the exam, but may still appear in very low frequencies. Some terms may be brought up by your instructor that are not in the book – these are also important to know.

(keep going…)

Answering the following questions as completely as possible will also help you review much (not all) of the textbook/ lecture materials. Be sure to review the articles for each test also.

For Test 1:

- What are the four branches/ subdisciplines of anthropology? What does each study? What is the difference between academic and applied anthropology?
- What six big events make humans different from other primates?
- How does the scientific research process work?
- What individuals and views were developed prior to Darwin to explain components of the natural world? What did Hutton, Lyell, Hooke, Cuvier, Linnaeus, Malthus, and Lamarck contribute to explanations of the natural world?
- What is Darwin-Wallace's natural selection? *****understanding this in detail is key to success in the class*****
- What did Mendel discover about inheritance? What is a Punnett square? What is the Principle of Segregation? How do recessive and dominant traits work? What is the Principle of Independent Assortment?
- What are mutations? Gene flow? Gene drift? How are each important in evolution?
- What are the differences between prokaryotes and eukaryotes? Somatic cells and gametes?
- What comprises DNA? What are the differences between nuclear and mitochondrial DNA?
- How does DNA replicate? What takes place in mitosis? How is meiosis different?
- What are chromosomes? Homologous chromosomes?
- What takes place in transcription and translation?
- What are regulatory genes? Homeotic genes?
- What are polymorphisms? What are polygenic traits? What is pleiotropy?
- What is epigenetics?
- What are the differences between microevolution and macroevolution? What are demes and gene pools?
- How is species defined?
- What is the Hardy-Weinberg Theory of Genetic Equilibrium? How can it be used?
- What are the various kinds of potential mutations?
- Be able to describe some examples of natural selection working (from lecture, text, and/ or videos).
- What anatomical and behavioral traits are characteristics of most primates?
- What are some of the different kinds of primates and examples from each category (Strepsirhines, Haplorhines, Anthropoids, Prosimians)? How do New World and Old World primates differ? How do hominoids differ from other primates?
- What traits characterize primate societies? What conditions or factors may influence primate behavior?
- What is sexual dimorphism? How and why may male and female reproductive strategies differ?
- What are the primate residence patterns?
- How do primates cooperate? Acquire food? Communicate? What other social behaviors have been documented? Do you think that non-human primates have culture?

For Test 2:

- What kinds of evidence are used by anthropologists studying the past? How can fossilization take place and what are some limits of the fossil record?
- What are differences between relative and absolute/ numeric dating?
- What are the relative dating methods discussed in lecture and how does each work? What may each be applied to? When does each apply?
- What are the absolute dating methods discussed in lecture and how does each work? What may each be

applied to? When does each apply? What is the difference between radiometric and nonradiometric dating methods?

- How can ancient environments and landscapes be reconstructed?
- What is paleoanthropology? Why was the Leakeys' work at Olduvai Gorge important in helping to establish the field?
- Why did primates emerge? When did this take place?
- How did early primates differ from modern primates? What major adaptive radiations characterized early primate evolution? What were the two early primate cranial casts shown in class/ video and when does each date to? (Don't try to memorize all of the early primates in the lecture/ text.)
- What is the most likely hypothesis for the origin of New World higher primates?
- When did our common ancestor with other primates live? Where? What evidence supports this?
- What do the terms hominid and hominin now mean? What living species belong in each grouping?
- Why is bipedal locomotion something that paleoanthropologists are focused upon? How can this be detected in the fossil record? What advantages might have been provided by bipedalism?
- What other traits characterize hominins?
- What are some hypotheses that attempt to explain why hominins evolved? Which do you support and why?
- Why can it be difficult to decide whether or not various specimens are the same species or different species when looking at the fossil record? How is genus defined?
- What are some of the earliest potential hominin species? What traits characterize each? What is known about each?
- What traits distinguish Australopithecines from earlier hominins? What members of this genus were included in lecture and what traits characterize each?
- Who may be the first stone tool makers? How has our thinking about this changed in recent years?
- How do robust Australopithecines/ *Paranthropus* differ from other Australopithecines? How do the various species differ? Which genus do you feel should be used for them and why?
- What Australopithecines have been found in southern Africa?
- How do late Australopithecines and early *Homo* species differ?
- What traits characterize *H. habilis*? Do you think *H. rudolfensis* differs enough to be its own species?
- What are Oldowan tools?
- When and where is the earliest evidence for hominins outside of Africa? What does this consist of?
- What traits characterize *H. erectus*? Do you think it is a widespread, diverse species or would you use other species names for some specimens? How is *H. erectus* behaviorally and anatomically different than earlier species?
- What are Acheulian tools?

For Test 3:

- Which or the three theories of the origins of modern *Homo sapiens* do you support? Why?
- Who are *H. antecessor* and *H. heidelbergensis*?
- What do we know about archaic *Homo sapiens* in Africa, Asia, and Europe?
- Who are Neandertals? Where did they live? What traits make them cold-adapted?
- How have reconstructions of Neandertals changed over time? How have our ideas about their intelligence and culture changed recently? Why?
- What are Bergmann's and Allen's rules and how do they predict Neandertal body proportions?
- What are Mousterian and Chatelperronian tools?
- How do early archaic *Homo sapiens* and early modern *Homo sapiens* differ anatomically and culturally?
- Where do early modern *Homo sapiens* first emerge? When?
- What anatomical and cultural traits characterize *Homo floresiensis*? What is their potential origin?
- How is ancient DNA impacting paleoanthropology? How has it changed our thinking about the past?
- How did modern humans disperse to Australia and the Americas? When did these population movements

take place? What fossil and archaeological evidence exists? What is Monte Verde and what is its significance?

- How is the culture of anatomically modern humans (AMH)/ modern *Homo sapiens* different than prior hominin behavior?
- How and why have human culture and anatomy changed in the last 10,000 years? Where did agriculture first develop? Why is it both a good and bad thing for people?
- How and why is our evolution still ongoing?
- What are some ways that race was studied in the past?
- What are the stages of human growth and development? What traits characterize each stage?
- How can forensic anthropologists determine the approximate age of an individual using bones?
- How and why can height reflect the overall health of a population?
- How do our bodies change as we age?
- What are the four ways that humans adapt to the challenges of living? How do functional adaptations differ from genetic adaptations?
- How do humans respond to heat and cold stress? High altitudes? Why is human skin color so varied?
- What can happen when humans don't receive enough food or enough of certain nutrients? What is overnutrition and how can it impact health?

I recommend that you save all of your study information to help you review this material in case you choose (or are obligated to take) the comprehensive final.