IDS 2935 What Do Bones Tell Us?

Quest 2

I. Course Information

Class Meetings

- Spring 2026
- Mondays and Wednesdays – Period 4 (10:40-11:30am)
  Mondays in Larsen Hall (LAR) 0310
  Wednesday in Computer Sciences/Engineering (CSE) E222
- One of three lab sections on Fridays
  (Note: Students must attend the lab section/time for which they are enrolled)
  B304 Turlington Hall
  - Period 3 (9:35-10:25am) (#17048)
  - Period 4 (10:40-11:30am) (#20629)
  - Period 5 (11:45-12:35pm) (#20763)

Instructor

- Dr. Valerie B. DeLeon
  Department of Anthropology (CLAS)
  Office location: B374 Turlington Hall
  Office hours: Mondays 11:45am-2:45pm and by appointment
  Email: vdeleon@ufl.edu ** Best to Communicate with Instructor in CANVAS **
  Phone: (352) 294-7602

- Teaching Assistant – Belkis Abufaur
  Office location: B307 Turlington Hall
  Office hours: Thursdays 10:00am-1pm and by appointment
  Email: Please use Canvas email.

Course Description

What Do Bones Tell Us? highlights the human skeleton in all its vertebrate glory, and the stories bones tell through daring discovery and innovative analysis. Who are we? Where do we come from? Why are we here? These are arguably big questions, and this course tackles them head on with hard evidence introducing students to exciting fields of study like paleontology, paleoanthropology, and archaeology.

What Do Bones Tell Us? is an interdisciplinary biological sciences course organized in three parts. (1) Part 1 explores what it means to be a primate, with review of the human skeletal system and then diving deep into vertebrate origins and the evolution of the Primates. (2) Part 2 explores what it means to be a hominid, including innovative approaches to the study of iconic fossil remains and the derived features

of *Homo sapiens*. (3) Part 3 explores what it means to be human, including how human skeletons contribute to a better understanding of human history, with an emphasis on the ethics of how we study and revere human remains in the present day.

What Do Bones Tell Us? provides the opportunity to develop an appreciation of the comparative method used routinely in the life sciences and to explore the role of homology in vertebrate evolution. Through active learning activities, group projects, and discussion, including engagement with the peer-reviewed literature, students will develop critical skills in the analysis and interpretation of data to understand and appreciate vertebrate, primate, and human diversity. Through critical analysis of the evidence, the course reinforces how scientific inquiry contributes substantively to increased knowledge about our world and ourselves, including the ethics involved in working with human remains, and how new lines of inquiry can contribute general knowledge that enriches student's interest in themselves and their fields of study at the University of Florida (and beyond).

Quest and General Education Credit

- Quest 2
- Biological Sciences ('B')

This course accomplishes the Quest and General Education objectives of the subject areas listed above. A minimum grade of C is required for Quest and General Education credit. Courses intended to satisfy Quest and General Education requirements cannot be taken S-U.

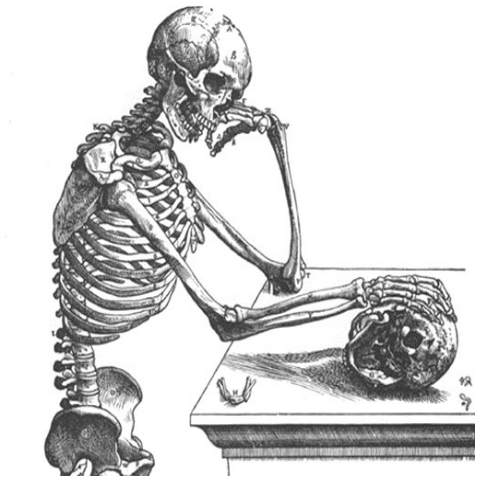
Required Books

Lieberman, Daniel E. (2013) *The Story of the Human Body.* New York: Pantheon. (2014 paperback edition, Vintage Books, 460 pp.) (author's webpage)

Switek, Brian (2019) *Skeleton Keys: The Secret Life of Bone.* New York: Riverhead Books. (276 pp.) (pen name for Riley Black: author's webpage)

Materials and Supplies Fee

N/A



II. Coursework & Schedule

1. List of Graded Work

Assignment	Description	Requirements	Points
Participation	Attend Friday lab section each week and participate in group-based activities and discussion. One excused absence after add/drop. 15 points each (n=11 of 12).	Attend Lab each Friday	165
Annotated Bibliography (AB#)	Annotated Bibliography (AB#) each week (1-2 pages) that includes notes/summary of 'required' reading (*). The AB should serve as a personalized study aid (e.g., glossary, key concepts/fossils/sites), and format is up to you. Each AB# is a separate document (but may be combined to serve as a cumulative study guide). Students may include 'deeper dive' readings or include related materials of interest. 15 points each (n=13).	Upload 'AB#' WORD doc (every Monday 10:40am ET)	195
Homework Assignments (HW#)	Complete Homework Assignments (HW#) that build on course content, data analysis, and related materials. Lowest HW score dropped. 25 points each (n=10 of 11).	Upload 'HW#' WORD doc (Mondays 10:40am ET)	250
Perusall Group Discussion	Participate in assigned peer-reviewed group discussion in Perusall to highlight peer-reviewed publications and related materials. 30 points each (n=4).	Online Group Discussion	120
Quizzes	Online quizzes will help students keep up to date on lecture/lab material and required (*) reading. Lowest quiz score dropped. 30 points each (n=4).	Online Quiz	120
Experiential Learning	Complete one independent Comparative Osteology activity using online resources and submit a report following the provided template.	Upload WORD doc	100
Final Project Proposal	Submit a one-page 'pitch' regarding planned final paper and presentation. Should be a paragraph and include at least three peer-reviewed reference.	Upload WORD doc	20
Final Presentation	Student presentation of Final paper to share with lab section in final weeks of course.	In-class Presentation	70
Final Paper	Final analytical essay (~6-8 double-spaced pages, not including references, but including tables/figures as warranted) focused on approved subject of interest. Paper should include student self-reflection on their human skeleton and its form, function, and adaptation to life as a student in college.	Upload WORD doc (due last day of class, 11:59pm ET)	160

2. Spring 2026 Weekly Course Schedule

Week/ Date	Activity	Topics, Homework, Assignments	Assigned Work Due
I. Natural History of the Primate Skeleton			
Week 1 (Jan. 12-16)	Topic	Introduction to the Skeleton	
	Summary	Introduction to the study of bone. We will begin with a discussion of course mechanics and then explore some of the exciting questions that can be answered by studying bone and bone tissue. We will use observations of the human skeleton to begin our study of *Osteology*.	
	Readings/Works	* Switek (2019) Chapter 1 - Introduction, pp. 1-32 * Lieberman (2013) Chapter 1 - Introduction, pp. 3-21	
	Assignment	HW #1: Complete the Human Skeleton worksheet [PDF]	1/19-HW1 (10:40am)
	LAB #1	Introduction	
Week 2 (Jan. 19-23)	Topic	Evolution	
	Summary	Basic principles of evolutionary biology are introduced, specifically focused on the analysis of the vertebrate skeleton, and the definition of species and geological context.	
	Readings/Works	* Switek (2019:35-62) * Zimmer, Carl (2008) What is a species. *Scientific American* (June) 298(6):72-79. [PDF] * Note: Include readings and resources from Week 1 in this Annotated Bibliography (AB1)	1/19-AB1 (10:40am)

	Assignment	Review online resources: Introductory video (01:38) for Becoming Human website: http://www.becominghuman.org/node/interactive-documentary and CBS News video (07:46): Researchers find 3-million-year-old tools in Kenya, showing development of human ancestors HW #2: What are your takeaways from watching these videos? Choose one or two, and write a brief statement of why this was new and/or interesting for you (< 1 page double-spaced expected).	1/26-HW2 (10:40am)
	LAB #2	Species Concepts and Science	
Week 3 (Jan. 26-30)	Topic	Skeletal Variation	
	Summary	Key concepts influencing skeletal variation are discussed, including homology, ontogeny, and allometry.	
	Readings/Works	*forthcoming*	1/26-AB2 (10:40am)
	Assignment	HW #3	2/2-HW3 (10:40am)
	LAB #3	Variation in Form and Size	
	Quiz 1	Available Online from Friday, Jan. 30 – Monday, Feb. 2 (10:40am)	2/2-Quiz 1 (10:40am)
Week 4 (Feb 2-6)	Topic	Vertebrates	
	Summary	Review of fish, amphibians, reptiles, and the skeletal evidence for the transition to land. Highlight key structural changes in the skull (jaws, teeth, and ears) and the development of four limbs.	

	Readings/Works	Switek (2019:65-88) Clack, Jennifer A. (2005) Getting a leg up on land. *Scientific American* (December) 293(6):100-107. Dalton, Rex (2006) The fish that crawled out of the water. *Nature* doi:10.1038/news060403-7. Daeschler, Edward B., Shubin, Neil H., and Jenkins Jr., Farish A. (2006) A Devonian tetrapod-like fish and the evolution of the tetrapod body plan. *Nature* 440:757-763. https://doi.org/10.1038/nature04639	2/2-AB3 (10:40am)
	Assignment	HW4: Online Resources for Comparative Osteology Faculty Spotlight: Dr. Michael Granatosky (UF Alum –BA Anthropology, 2011) Michael Granatosky - Ecology & Evolutionary Biology	2/09-HW4 (10:40am)
	LAB #4	Skeletal Diversity of Vertebrates	
Week 5 (Feb. 9-13)	Topic	Mammalia	
	Summary	Review of the modern mammals and their radiation. We will highlight key differences in the mammal skeleton compared to birds/reptiles and discuss the early diversification of placental mammals.	
	Readings/Works	Brusatte, Stephen and Luo, Zhe-Xi (2016) A Scent of the Mammals. *Scientific American* (June) 314(6):28-35. Pennisi, Elizabeth (2019) How life blossomed after the dinosaurs died. *Science* 366:409. DOI: 10.1126/science.366.6464.409. Lyson, T.R. et al. (2019) Exceptional continental record of biotic recovery after the Cretaceous-Paleogene mass extinction. *Science* 366:977-983. DOI: 10.1126/science.aay2268 Faculty Spotlight: Stephen Chester (UF Alum – BS Marketing, BA Anthropology, 2005) http://stephenchesterpaleontology.com/index.php/stephen-chester-bio/	2/09-AB4 (10:40am)

	Assignment	HW5: Group Assignment and Lightning Presentations. Use Animal Diversity website (https://animaldiversity.org/) and Tree of Life website (http://tolweb.org/tree/) to conduct research on what is known about mammals before and after the K-Pg boundary.	2/16-HW5 (10:40am)
	LAB #5	Mammals	
Week 6 (Feb. 16-20)	Topic	Primates	
	Summary	Introduction to the primates and their skeleton, focusing on monkeys and apes. Review key differences between primates and non-primate mammals. Discuss changes in teeth and changes in tooth morphology.	
	Readings/Works	Switek (2019:91-110) Walton, Rebecca (2009) Introducing *Darwinius masillae*. EveryONE PLoS One Blog. https://blogs.plos.org/everyone/2009/05/19/plos-one-introducesdarwinius-masillae/ Franzen, Jens L. et al. (2009) Complete primate skeleton from the Middle Eocene of Messel in Germany: Morphology and Paleobiology. *PLOS ONE* 4(5): e5723. doi: 10.1371/journal.pone.0005723 Faculty Spotlight: Doug Boyer (Duke University): http://www.dougmboyer.com/	2/16-AB5 (10:40am)
	LAB #6	Primate Diversity	
	Quiz 2	Available Online from Friday, Feb. 20 – Monday, Feb. 23 (10:40am)	2/23-Quiz 2 (10:40am)
II. Natural History of the Human Skeleton			
Week 7 (Feb. 23-27)	Topic	Bipedalism	
	Summary	Key aspects of the hominoid (ape) skeleton are reviewed and the fossil evidence of early the first upright walkers is introduced. Skeletal highlights focus on the analysis of weight-bearing joints and limbs and determining how an animal moves on two legs as opposed to walks on all fours.	

	Readings/Works	Lieberman (2013:25-47) Switek (2019:113-131) Harmon, Katherine (2013) Shattered ancestry. *Scientific American* (February) 308(2):42-49. Shreeve, Jamie. 2010. The Evolutionary Road. *National Geographic* July 2010 pp. 34-67.	2/23-AB6 (10:40am)
	Assignment	Identify the key bipedal traits in your own skeleton, and produce a 'lab report' that indicates key features of upright walking and the transformation of the skeleton from a quadruped to a biped. Students will evaluate hypotheses and data provided that contribute to our knowledge of diversity of bipedal locomotion and what evidence is brought to bear to support these changing perspectives.	3/02-HW7 (10:40am)
	LAB #7	Bipedalism	
Week 8 (Mar. 2-6)	Topic	Jaws & Teeth	
	Summary	Aspects of the jaws and teeth are introduced with respect to identifying different species in the fossil record. Skeletal highlights focus on analysis of functional morphology and biomechanics using living (extant) and extinct forms to interpret differences in the identification species, and diet.	
	Readings/Works	Lieberman (2013:48-66) Switek (2019:133-173) Wong, Kate (2016) Mystery Human. *Scientific American* (March) 314(3):28-37. Early *Homo* (read articles in order listed, ca. 8 pp.). Sugden, Andrew M. (2015) Finding *Homo* nearly 3 million years ago. *Science* 347:1325. DOI: 10.1126/science.347.6228.1325-g Gibbons, Ann (2015) Deep roots for the genus *Homo*. *Science* 347:1056-1057. DOI: 10.1126/science.347.6226.1056-b Villmoare, Brian et al. (2015) Early Homo at 2.8 Ma from Ledi-Geraru, Afar, Ethiopia. Science 347:1352-1355. DOI: 10.1126/science.aaa1343	3/02-AB7 (10:40am)
	Assignment	TBD	3/09-HW8 (10:40am)
	LAB #7	Jaws & Teeth	

Week 9 (Mar. 9-13)	Topic	Brains & Guts	
	Summary	Early human changes in stature and limb proportion are explored with respect to evidence in the fossil record for encephalization (brain size increase) and changes towards 'habitual' walking and running (on two legs). Skeletal highlights focus on the 'expensive tissue hypothesis'.	
	Readings/Works	Lieberman (2013:94-153) Aiello, Leslie C. and Wheeler, Peter (1995) The expensive-tissue hypothesis. *Current Anthropology* 36(2):199-221. doi:10.1086/204350. Leonard, William R. (2002) Food for thought. *Scientific American* (December) 287(6):106-115.	3/09-AB8 (10:40am)
	Assignment	TBD	3/23-HW9 (10:40am)
	LAB #8	Brains and Guts	
	Quiz 3	Available Online from Friday, Mar. 13 – Monday, Mar. 23 (10:40am)	3/23-Quiz 3 (10:40am)
Week 10 (Mar. 16-20)		SPRING BREAK (NO CLASSES)	
Week 11 (Mar. 23-27)	Topic	On the move	
	Summary	Modern humans ventured across the Old World and left their mark in a variety of ways, including in the genes of present-day people and the fossilized remains of modern (and extinct) humans. Skeletal highlights focus on ancient DNA and the preservation of bone.	

	Readings/Works	Switek (2019:175-196) Marean, Curtis W. (2015) The Most Invasive Species of All. *Scientific American* (August) 313(2):32-39. Hammer, Michael F. (2013) Human hybrids. *Scientific American* (May) 308(5):6671. Hofman, Courtney A. and Warinner, Christina (2019) Ancient DNA 101. *The Archaeological Record* 19(1):18-25.	3/23-AB9 (10:40am)
	Assignment	Review the different types of genetic data used by archaeologists to learn about past lifeways. Compare the nature of these different datasets and how to they confirm what we know and raise questions that we don't yet know (or have the tools just yet to address the question(s)).	3/30-HW10 (10:40am)
	LAB #10	On the move	
III. Biocultural History of Humankind			
Week 12 (Mar 30-Apr 3)	Topic	The Biological Profile	
	Summary	Modern humans are a diverse lot and their skeletons too are diverse. In this week, we explore the basic concepts of aging and sexing the human skeleton and interpreting their stature (how tall they were).	
	Readings/Works	Lieberman (2013:157-179) Switek (2019:199-223) Faculty Spotlight: Dr. Heather Garvin, PhD, D-ABFA (UF Alum - BS Zoology and BA Anthropology, 2005), Des Moines University. https://www.dmu.edu/directory/heather-garvin-elling/	3/30-AB10 (10:40am)
	Assignment	HW11: What does it mean to be a *modern* human? Students will critically explore the history of scientific racism and past attempts to categorize people by biological/sociocultural 'race'.	4/06-HW11 (10:40am)
	LAB #11	The Biological Profile	

Week 13 (Apr. 6-10)	Topic	Human Diversity	
	Summary	Diversity of humankind is explored through both skeletal remains and preserved DNA in ancient skeletal material. Skeletal highlights focus on clinal effects (related to latitudinal differences) on size and shape of the human skeleton and limb proportions.	
	Readings/Works	Bamshad, Michael J. and Olson, Steve E. (2003) Does race exist? *Scientific American* (December) 289(6):78-85. Jablonski, Nina G. (2010) The naked truth. *Scientific American* (February) 302(2):42-49. Pringle, Heather (2011) The First Americans. *Scientific American* (November) 305(5):36-41. Faculty Spotlight: Dr. Cris Erin Hughes (UF Alum – BA Anthropology, 2004). Assistant Clinical Professor, Anthropology, University of Illinois, Urbana-Champaign. https://anthro.illinois.edu/directory/profile/hughesc	4/06-AB11 (10:40am)
	Assignment	'One Species Living Worldwide' http://humanorigins.si.edu/evidence/genetics/one-species-living-worldwide (No submission required)	
	LAB #12	Student Presentations	
Week 14 (Apr. 13-17)	Topic	Health & Well-Being	
	Summary	In bioarchaeology, one fascinating field that is informed by biomedicine is that of paleopathology. We will review skeletal evidence associated with the archaeological record that highlights patterns of human adaptation in diverse contexts. Skeletal highlights focus on indirect evidence of health from the oral microbiome in (and on) your teeth (in the form of mineralized plaque).	
	Readings/Works	Lieberman (2013:180-208; 209-247) Ackerman, Jennifer (2012) The ultimate social network. *Scientific American* (June) 306(6):36-43.	4/13-AB12 (10:40am)
	LAB #13	Student Presentations	
	Quiz 4	Available Online from Friday, Apr. 17 – Mon. Apr. 20 (10:40am)	4/20-Quiz4 (10:40am)

Week 15 (Apr. 20-22)	Topic	Behavior & Identity	
	Summary	Here we explore diverse approaches to how people celebrate the lives of their once-living members through the thoughtful act of burial. Skeletal highlights focus on traumatic injuries and how we interpret 'cause of death' in the prehistoric record.	
	Readings/Works	Switek (2019: 225-243) Read the following articles in order listed (ca. 20 pp) Armelagos, George J. (2013) Reading the bones. *Science* 342:1291. DOI: 10.1126/science.1249076 Gibbons, Ann (2013) The Thousand-Year Graveyard. Science. *Science* 342:1306-1310. DOI: 10.1126/science.342.6164.1306 Science BLOG: https://spark.sciencemag.org/the-thousand-year-graveyard/	4/20-AB13 (10:40am)
	Assignment	Final Paper DUE	Upload Final Paper Wed 4/22 (11:59pm)

III. Grading

3. Statement on Attendance and Participation

Attendance and Participation:

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/

- Attendance: Attendance at lecture is strongly recommended. Attendance at Friday labs is required. Attendance will be taken and recorded in the Canvas gradebook. You are allowed one "personal day" absence from Friday lab for the semester after drop/add, after which each absence that does not meet university criteria for "excused" will result in a participation score of zero.
- Participation: Consistent informed, thoughtful, and considerate class participation is expected and will be evaluated using the rubric below for Group Activities throughout the semester. The instructor will inform you of your participation grade to date when mid-term exams are returned and schedule a conference if you are earning <70%.
- NOTE: If you have personal issues that prohibit you from joining freely in class discussion, e.g., shyness, language barriers, etc., please see the instructor as soon as possible to discuss alternative modes of participation.

Participation Grading Rubric (applies to Friday lab period only)

	High Quality	Average	Needs Improvement
Informed: Shows evidence of having done the assigned work with constructive input.	**4 points.** Student fully informed and prepared for class group activity.	**2-3 points.** Student moderately prepared for class group activity.	**1-2 point(s).** Student unprepared or minimally prepared for class activity.
Thoughtful: Shows evidence of having understood and considered issues raised.	**3 points.** Student considers myriad aspects of class group activity.	**2 points.** Student considers only nominal aspects of class group activity.	**1 point.** Student not engaged in subject being discussed for class group activity
Considerate: Takes the perspective of others into account.	**3 points.** Student works well within assigned class group.	**2 points.** Student less considerate of others in assigned class group.	**1 point.** Student not considerate of others in assigned class group.

4. Final Paper Grading Rubric

	SATISFACTORY (Y)	UNSATISFACTORY (N)
Content	Assignments exhibit evidence of ideas that respond to the topic with complexity, critically evaluating and synthesizing sources, and provide an adequate discussion with basic understanding of credible sources.	Assignments either include a central idea(s) that is unclear or off- topic or provide only minimal or inadequate discussion of ideas. Papers may also lack sufficient or appropriate sources.
Organization & Coherence	Assignments exhibit an identifiable structure for topics, including a clear thesis statement, and follow a logical progression of ideas.	Documents and paragraphs lack clearly identifiable organization, may lack any coherent sense of logic in associating and organizing ideas, and may also lack transitions and coherence to guide the reader.
Argument & Support	Assignments use persuasive and confident presentation of ideas, strongly supported with evidence.	Documents make only weak generalizations, providing little or no support, as in summaries or narratives that fail to provide critical analysis.
Style	Assignments use a writing style with word choice appropriate to the context, genre, and discipline. Sentences should display complexity and logical sentence structure.	Documents rely on word usage that is inappropriate for the context, genre, or discipline. Sentences may be overly long or short with awkward construction. Documents may also use words incorrectly.
Mechanics	Assignments will feature correct or error-free presentation of ideas. At the weak end of the Satisfactory range, papers may contain a few spelling, punctuation, or grammatical errors that remain unobtrusive so they do not muddy the paper's argument or points, but note for the purposes of your grade that I expect you to write professionally and I take points off for basic errors like these. I will evaluate and provide feedback on all written assignments with respect to grammar, punctuation, clarity, coherence, and organization.	Papers contain so many mechanical or grammatical errors that they impede the reader's understanding or severely undermine the writer's credibility.

5. Grading Scale

For information on how UF assigns grade points, visit:
https://catalog.ufl.edu/UGRD/academicregulations/grades-grading-policies/

A	94 – 100% of possible points		C	74 – 76%
A-	90 – 93%		C-	70 – 73%
B+	87 – 89%		D+	67 – 69%
B	84 – 86%		D	64 – 66%
B-	80 – 83%		D-	60 – 63%
C+	77 – 79%		E	<60

IV. Quest Learning Experiences

6. Details of Experiential Learning Component

This course encourages students to become familiar with *Open Science* initiatives and resources that are openly available to enable independent research. In our exploration of comparative osteology, we will explore MorphoSource (https://www.morphosource.org), an extensive online repository of 3D image data available for study. Student activities are intended to foster a broader understanding of the comparative method and its use in the natural anatomical sciences.

7. Details of Self-Reflection Component

This course requires students to explore their internal skeletons and compare their skeletons with a variety of different living and extinct taxa. Each week, group-led discussions on a renowned discovery help to reinforce student's place in nature, as will their submitted assignments. A final essay paper forces students to self-reflect and consider the comparative structure and function of their vertebrate skeleton at this important developmental stage in their life course.

V. General Education and Quest Objectives & SLOs

8. This Course's Objectives—Gen Ed Primary Area and Quest Biological Sciences + Quest 2 + Course Objectives

Biological Sciences Objectives ➔	**Quest 2 Objectives ➔**	**This Course's Objectives ➔**	**Objectives will be Accomplished By:**
Biological science courses provide instruction in the basic concepts, theories and terms of the scientific method in the context of the life sciences.	Address in relevant ways the history, key themes, principles, terminologies, theories, or methodologies of the various social or biophysical science disciplines that enable us to address pressing questions and challenges about human society and/or the state of our planet.	This course will explore the vertebrate skeleton, both qualitatively and quantitatively, with an emphasis on how the scientific method is applied to understand the morphology and diversity of animals and humans in the past (and present)	This will be accomplished through the analysis of exemplary discoveries of preserved skeletal remains and individual/group analysis of associated qualitative and quantitative data from the literature.
		This course will explain how the comparative approach and the use of homology is used in the life sciences to explain form and function of the human skeleton.	This will be accomplished through course lectures and shared content that includes online resources.

Biological Sciences Objectives ➔	**Quest 2 Objectives ➔**	**This Course's Objectives ➔**	**Objectives will be Accomplished By:**
Courses focus on major scientific developments and their impacts on society, science and the environment, and the relevant processes that govern biological systems.	Present different social and/or biophysical science methods and theories and consider how their biases and influences shape pressing questions about the human condition and/or the state of our planet.	This course will review and assess diverse and novel scientific approaches used in the analysis of fossil skeletal remains and how such methods contribute to the analysis of the human skeleton.	This will be accomplished through lecture, readings, online content, and problem sets that present data for students to calculate biological metric and nonmetric traits.
Students will formulate empirically-testable hypotheses derived from the study of living things, apply logical reasoning skills through scientific criticism and argument, and apply techniques of discovery and critical thinking to evaluate outcomes of experiments.	Enable students to analyze and evaluate (in writing and other forms of communication appropriate to the social and/or biophysical sciences) qualitative or quantitative data relevant to pressing questions concerning human society and/or the state of our planet.	This course will teach students how to apply fundamental principles of evolutionary biology and skeletal mechanics and formulate testable hypotheses using data to address how changes in the vertebrate skeleton has affected how we interpret the human skeleton.	This will be accomplished in lectures (Mondays and Wednesdays) and group discussion and activities (Fridays), and in self-reflection exercises (weekly reports) and in their final paper.
Biological science courses provide instruction in the basic concepts, theories and terms of the scientific method in the context of the life sciences.	Analyze critically the role social and/or the biophysical sciences play in the lives of individuals and societies and the role they might play in students' undergraduate degree programs.	This course will teach how the scientific method used is applied routinely in comparative anatomy and developmental biology, using the human skeleton as its template.	This will be accomplished through individual and group activities (and reflection), a weekly journal, and a final paper project.

Biological Sciences Objectives ➔	Quest 2 Objectives ➔	This Course's Objectives ➔	Objectives will be Accomplished By:
	Explore or directly reference social and/or biophysical science resources outside the classroom and explain how engagement with those resources complements classroom work.	This course will provide students the opportunity to access/ analyze data that is novel (but topical) to this course.	This will be accomplished through independent learning using data repositories, and in their final paper project

9. This Course's Student Learning Outcomes (SLOs)—Gen Ed Primary Area and Quest Biological Sciences + Quest 2 + Course SLOs

	Biological Sciences SLOs ➔ Students will be able to…	Quest 2 SLOs ➔ **Students will be able to…**	This Course's SLOs ➔ **Students will be able to…**	Assessment **Student competencies will be assessed through…**
Content	**Identify, describe, and explain** the basic concepts, theories and terminology of natural science and the scientific method; the major scientific discoveries and the impacts on society and the environment; and the relevant processes that govern biological and physical systems.	**Identify, describe, and explain** the cross-disciplinary dimensions of a pressing societal issue or challenge as represented by the social sciences and/or biophysical sciences incorporated into the course.	**Identify, describe, and explain** 1) biological aspects of the human skeleton that reflect their vertebrate, mammalian, and primate heritage, and modern human biocultural adaptations; 2) the role of homology in comparative anatomy and how it aids in an understanding of the human skeletal system, and 3) how evolutionary and cultural factors have helped shape the skeleton.	Homework assignments, exams, lightning presentation, and a final paper.

	Biological Sciences SLOs ➔ Students will be able to…	**Quest 2 SLOs ➔** **Students will be able to…**	**This Course's SLOs ➔** **Students will be able to…**	**Assessment** **Student competencies will be assessed through…**
Critical Thinking	**Formulate empirically testable hypotheses** derived from the study of physical processes or living things; apply logical reasoning skills effectively through scientific criticism and argument; and apply techniques of discovery and critical thinking effectively to solve scientific problems and to evaluate outcomes.	**Critically analyze** quantitative or qualitative data appropriate for informing an approach, policy, or praxis that addresses some dimension of an important societal issue or challenge.	**Critically analyze and evaluate:** 1) qualitative and quantitative data derived from fossil (and modern) skeletal material to draw conclusions and test hypotheses about the history of life and the human condition; and 2) the contribution of the analysis of the human skeleton and its biology and development, with respect to what is known (not known, and unknowable) in the history of life.	Homework assignments, exams, lightning presentation, and a final paper.
Communication	Communicate scientific knowledge, thoughts, and reasoning clearly and effectively.	**Develop and present**, in terms accessible to an educated public, clear and effective responses to proposed approaches, policies, or practices that address important societal issues or challenges.	**Develop and present** in writing the analysis of qualitative and quantitative data, and logic to draw reasonable conclusions based on their analysis on a specific problem.	Homework assignments, lightning presentation, and final paper.
Connection	N/A	**Connect course content** with critical reflection on their intellectual, personal, and professional development at UF and beyond.	Analyze and compare their human skeleton to address key changes in the vertebrate skeleton and accommodations that may occur due to biocultural adaptations (and insults).	Lightning presentation, and final paper.

VI. Required Policies

11. Course Policies:

This course complies with all UF academic policies. For information on those polices and for resources for students, please see this link: https://syllabus.ufl.edu/syllabus-policy/uf-syllabus-policy-links/.

12. Students Requiring Accommodation

Students requesting accommodation for disabilities must first register with the Disability Resource Center (https://disability.ufl.edu/get-started). The DRC will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive; therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

13. Use of AI

Written assignments are subject to and in accordance with the student conduct code and academic honesty. Assignments will use the tool Turnitin to assess plagiarism and are subject to ChatGPT/AI detection. Assignments will be checked by the instructional team if more than 20% of the assignment suggests the content did not come from the student or is not properly cited. If there is any evidence of violation of the Student Honor Code, that suggests the student ***has not written the majority of the content on their own and is egregiously plagiarized***, the instructor may do one or more of the following: ask the student to redo the assignment, deduct major points from the score, or receive a *grade of zero* for the assignment. The instructor may offer a make-up assignment, but multiple offenses will be reported to the Anthropology department administration for review and could result in a report to the Student Conduct and Conflict Resolution Office.

Why This Matters*:* The goal of this course is to help you develop your own writing skills and critical thinking. Although AI tools can be helpful, over-reliance on them can hinder your learning and growth. If you are unsure whether your intended use of AI tools is appropriate, please consult me or this UF guide on AI use before proceeding.

14. Religious Observances

The Florida Board of Education and state law govern university policy regarding observance of religious holidays. The following guidelines apply:

- Students, upon prior notification to their instructors, shall be excused from class or other scheduled academic activity to observe a religious holy day of their faith.
- Students shall be permitted a reasonable amount of time to make up the material or activities covered in their absence.
- Students shall not be penalized due to absence from class or other scheduled academic activity because of religious observances.

See https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/#religiousholidaystext

15. The Writing Studio

The writing studio is committed to helping University of Florida students meet their academic and professional goals by becoming better writers. Visit the writing studio online at http://writing.ufl.edu/writing-studio/ or in 2215 Turlington Hall for one-on-one consultations and workshops.