

FUNDAMENTALS OF BIOLOGICAL ANTHROPOLOGY

Anthropology 20201

Spring 2020

Tuesday & Thursday - 9:30am 10:45am

Corbett Family Hall E378

Dr. Cara Ocobock

Dr. Ocobock's Contact Info

Office: 256 Corbett Family Hall

Office Hours: Tuesday 11-12 & 2-3

Thursday 11-12 & 2-3

Phone: 574-631-7738

Email: cocobock@nd.edu

Twitter: @CaraOcobock

Join the Bioanthropology Facebook Group

<https://www.facebook.com/groups/BioAnthNews/>

Listen to the Human Biology Podcast!

<https://soundcloud.com/humanbiologyassociation>

Important Things to Know



This is a grade-less, test-less class, see details further in this syllabus



I am **NOT** Mrs. Ocobock. I am Dr. Ocobock or Professor Ocobock



I will not typically respond to email between the hours of 6pm-6am.



BEFORE emailing either myself or Hanna, please first check the syllabus for answers.

Course Description

This course will provide you with broad background in the field of biological anthropology with a focus on human evolution. The course is divided into 4 primary sections. 1) we will discuss the history and development of evolutionary theory and cover basic genetics. 2) we will focus on living non-human primates, their morphology, behavior and ecology. 3) we will focus on the fossil record to understand human evolution. 4) we will examine modern human dispersal, variation, and current topics in biological anthropology.

Course Objectives

- 🦉 Be able to explain what biological anthropology is (and was), and why it is a relevant field of study
- 🦉 Be able to explain evolutionary theory, with specific examples from humans and non-human primates
- 🦉 Understand and appreciate the breadth and depth of human variation
- 🦉 Engage with the material in both traditional and non-traditional ways in order to broaden your skillset and hone both your speaking and writing skills
- 🦉 Develop honest self-assessment skills

THIS CLASS HAS NO GRADES OR TESTS, BUT THERE WILL BE A FINAL GRADE

Why Grades Don't Work

- Grades make you think less
- Grades make you avoid taking risks
- Grades make you lose interest in learning
- Grades rarely reflect actual learning
- Grades do not reflect life

Why Tests Don't Work

- Tests really only test your cramming/short term memory
- Tests cannot take into account different learning styles
- Tests produce unnecessary anxiety that prohibit learning engagement

How This Will Work

You will develop a goal and plan of action for this semester

- You will state the grade you would like to receive and how you plan to achieve this grade throughout the semester
- You will also describe any hurdles you expect to encounter and how you might overcome them
- You will meet with me during the first two weeks of class to discuss this plan
- You will turn in regular writing assignments as well as 10 larger assignments throughout the semester
 - I will provide feedback on each of these assignments
 - But so will you, for each larger assignment, you will write a short assessment that includes the following:
 - what you learned
 - the challenges you faced completing this assignment
 - how you overcame those challenges (if you did)
 - how well you think you did the assignment
 - what you think you could have done better
- Mid-Semester Check-In – meet with me to discuss what you have done so far, what you are proud of, and what you could be doing better
- End of Semester Meeting – meet with me to assess the body of work you completed throughout the semester and together decide a final grade to be submitted to Notre Dame.

Academic Integrity

As a student of the University of Notre Dame, you are expected to abide by its honor code (<https://honorcode.nd.edu/>):

“As a member of the Notre Dame community, I acknowledge that it is my responsibility to learn and abide by principles of intellectual honesty and academic integrity, and therefore I will not participate in or tolerate academic dishonesty.”

When you are expected to work alone on an assignment, it will be clearly stated in the assignment guidelines.

Course Materials

- Most resources are links to articles on the web.
- Articles provided online
- A notebook
- A 3-ring binder
- Handful of colored pens or pencils (I like to write and draw on the board)

Class Behavior

- This class does cover some controversial topics. I expect each of you to respect your classmates' opinions. If you disagree, do so respectfully so that we can have a discussion about it. I want to promote diversity and inclusion in this classroom (<https://diversity.nd.edu/>)
- I know when you are looking at your phones or computers for non-class reasons. Please do not do it. It is disrespectful to me and you classmates.

IN ORDER TO SUCCEED

You Need To:

1. Attend class regularly
2. Take notes in class – handwritten is better!
3. Actively participate
4. Maintain a binder to keep all of your assignments (which will include my feedback), so that you have a good reminder of work when it comes time to self-evaluate at the end of the semester
5. Maintain an open mind to my methods – this is the first time I have run a course like this (no grades or exams). There are likely to be bumps along the way, I would greatly appreciate your patience
6. Maintain an open mind to the topics covered
7. Be engaged and inquisitive
8. Give me feedback! Like I said, I am trying a new style. If something works well, tell me. If something fails miserably, TELL ME!
9. DO NOT PLAGIARIZE! Cite everything you use to complete your work – here is a helpful resource on citations: <http://library.williams.edu/citing/styles/chicago2.php>

ASSIGNMENTS

Regular Writing Prompts & Questions

- Regular writing prompts to complete **BEFORE YOU DO THE READING**
 - These will consist of questions I pose to get you thinking about what you may or may not know about this material before reading about it.
 - There is no right or wrong answer to all of this, it is just to get you thinking
- Once writing prompt **AND** reading assignment are complete, you will have reading POST reading questions to answer
- These are submitted through Sakai

Large Assignments

1. About Me & Course Plan of Action
2. Meet with Dr. Ocobock
3. Evolution Infographic
4. Primate Podcast/YouTube Video
5. Meet with Dr. Ocobock
6. Book Review Website
7. Human Evolution Board Game
8. Un-Essay Final Project
9. PARTICIPATION
10. Meet with Dr. Ocobock

ASSIGNMENT CHECK LIST

| Writing Prompt & Questions | Date | Done |
|----------------------------|------|------|
| 1 | 1/16 | |
| 2 | 1/23 | |
| 3 | 1/30 | |
| 4 | 2/4 | |
| 5 | 2/11 | |
| 6 | 2/13 | |
| 7 | 2/18 | |
| 8 | 2/25 | |
| 9 | 3/3 | |
| 10 | 3/19 | |
| 11 | 3/26 | |
| 12 | 3/31 | |
| 13 | 4/2 | |
| 14 | 4/21 | |
| 15 | 4/23 | |

| Large Assignment | Date | Done |
|----------------------------|--------------|------|
| About Me & Plan of Action | 1/21 | |
| Meet Dr. Ocobock | Week of 1/21 | |
| Evolution Infographic | 1/30 | |
| Primate Podcast/YouTube | 2/18 | |
| Meet Dr. Ocobock | Week of 2/25 | |
| Book Review Website | 3/17 | |
| Human Evolution Board Game | 4/7 | |
| Un-Essay | 4/28 | |
| Meet with Dr. Ocobock | Week of 5/4 | |

Assignment Guidelines

- Guidelines will be provided to you for each assignment. If you do not understand the assignment guidelines, it is up to you to reach out to me for clarification!
- It is your responsibility to schedule the meetings with me.
- The book review is meant to be worked on throughout the semester rather than crammed in at the last minute.

Attendance and Participation

I like to run an interactive class which means there is give and take from me AND you. You cannot participate in class unless you are physically there. I am fully aware of and sensitive to University sanctioned events as well as life events that may conflict with class. It is your responsibility to discuss potential absences with me ahead of time if possible. If you cannot discuss it with me ahead of time, please make every effort to talk to me as soon as you can.

COURSE SCHEDULE...FOR NOW

Week 1: January 14 & 16 What is Anthropology

Reading 1/14:
No Readings

No Assignments due

Reading 1/16:

- 1) [What is Biological Anthropology?](#)
- 2) [Scientific Underpinnings of Biological Anthropology](#)

Assignment 1/16:
1) Writing Prompt #1

Week 2: January 21 & 23 Basic Genetics/Cellular Biology & Evolutionary Forces Part 1

Reading 1/21: This looks like a lot, but should be review from high school biology

- 1) [Chromosome Theory](#)
- 2) [Principles of Inheritance](#)
- 3) [RNA](#)
- 4) [What is a Gene?](#)
- 5) [Genotype & Phenotype](#)
- 6) [Pleiotropy](#)
- 7) [Polygenic Traits](#)
- 8) [Genetic Recombination](#)
- 9) [Hox Genes](#)
- 10) [Gene Disorders](#)

Assignment 1/21:
1) **About Me**
2) **Plan of Action**

Reading 1/23: If you are motivated, read the articles for 1/28 before this class as well

- 1) [Evolution](#)
- 2) [Change over time](#)
- 3) [Myth of Evolutionary Advancement](#)
- 4) [Selection, Genetic Drift, and Gene Flow](#)
- 5) [Natural Selection Part 1](#) & [Natural Selection Part 2](#)

Assignment 1/23:
1) Writing Prompt #2

Week 3: January 28 & 30 Evolutionary Forces Parts 2&3

Reading 1/28:

- 1) [Mutations](#)
- 2) [Sexual Selection](#)
- 3) [Hardy Weinberg](#)
- 4) [Speciation](#)

Assignments 1/28: NONE

Reading 1/30:

- 1) [Gene-Environment Interactions](#)
- 2) Mulligan article on Sakai
- 3) Tishkoff article on Sakai

Assignments 1/30:
1) Writing Prompt #3
2) **Evolutionary Infographic**

COURSE SCHEDULE...FOR NOW...CONTINUED

Week 4: February 4 & 6 Living Primates

Reading 2/4:

- 1) [The Living Primates](#)
- 2) [Crown Primate Characteristics](#)
- 3) [Phylogenetic Trees](#)

Assignment 2/4: Writing Prompt #4

Reading 2/6:

- 1) [Catarrhines](#)
- 2) [Platyrrhines](#)

No assignment due

Week 5: February 11 & 13 Primate Behavior

Reading 2/11:

- 1) [Primate Locomotion](#)
- 2) [Primate Diets](#)

Assignment:

- 1) Writing Prompt #5
- 2) Meet with Dr. Ocobock this week

Reading 2/13:

- 1) [Primates in Communities](#)
- 2) [Primate Sociality & Social Systems](#)
- 3) [Primate Group Size](#)
- 4) [Primate Cognition](#)
- 5) [Primate Communication](#)

Assignment:

- 1) Writing Prompt #6

Week 6: February 18 & 20 Fossils, Paleontological Process, Paleontological Techniques

Reading 2/18:

- 1) [Paleontology](#)
- 2) [How to become a fossil](#)
- 3) [Dating Techniques](#)
- 4) [Molecular Clocks](#)

Assignment 2/18:

- 1) Writing Prompt #7
- 2) **Primate Podcast/Youtube!**

No Readings

No Assignment Due

Week 7: February 25 & 27 Primate Evolution

Reading 2/25:

- 1) [Primate Origins](#)
- 2) [Climate Change & Primate Evolution](#)
- 3) [Macroevolution](#)

Assignment 2/25:

- 1) Writing Prompt #8
- 2) Meet with Dr. Ocobock this week

Reading 2/27:

- 1) [Planet of the Apes](#)
- 2) Harrison article on Sakai
- 3) [Hominoids](#)

No Assignments Due

COURSE SCHEDULE...FOR NOW...CONTINUED

Week 8: March 3 & 5 Early Hominins

Reading 3/3:

- 1) [Overview of Hominin Evolution](#)
- 2) [The human fossil record](#)
- 3) [The Earliest Hominins](#)
- 4) [Climate and Hominin Evolution](#)
- 5) [Bipedality](#)

Assignment:

- 1) Writing Prompt #9

Reading 3/5:

- 1) [Hominin Taxonomy](#)
- 2) [Lucy](#)
- 3) [Australopithecus et al.](#)
- 4) [Robust Australopithecines](#)
- 5) [More Australopiths](#)

No assignment due today

Week 9: March 10 & 12

NO CLASS! SPRING BREAK

Week 10: March 17 & 19 Early *Homo* and Archaic *H. sapiens*

Reading 3/17:

- 1) [Paleolithic Tech](#)
- 2) [Homo erectus](#)
- 3) [Meat Eating](#)
- 4) [Naledi](#) – explore this, click on links!

Assignment 3/17:

- 1) **Book Review Website!**

Reading 3/19:

- 1) [Archaic *H. sapiens*](#)
- 2) [Neanderthal Behavior](#)
- 3) [Neanderthal Body of Evidence](#)
- 4) [Did Neanderthals Speak?](#)

Assignment 3/19:

- 1) Writing Prompt #10

Week 11: March 24 & 26 Modern Human Emergence & Dispersal

Reading 3/24:

- 1) [What happened to Neanderthals?](#)
- 2) [Transition to Modern Behavior](#)
- 3) [Flores](#)

No assignment due today

Reading 3/26:

- 1) [Models of Human Origins](#)
- 2) [What happened to other hominins?](#)

Assignment 3/26:

- 1) Writing Prompt #11

COURSE SCHEDULE...FOR NOW...CONTINUED

Week 12: March 31 & April 2 Modern Human Emergence & Racism in Anthropology

Reading 3/31:

- 1) Chan et al. on Sakai
- 2) [Wired Article](#)
- 3) Ackermann et al. on Sakai
- 4) [Gizmodo Article](#)

Assignment 3/31:

- 1) Writing Prompt #12

Reading 4/2:

- 1) Athreya & Ackerman on Sakai
- 2) Rushton & Templar on Sakai
- 3) Dressler et al. on Sakai
- 4) [Race & Pseudo Science](#)
- 5) [Podcasts if you are interested](#), you should be

Assignment 4/2:

- 1) Writing Prompt #13

Week 13: April 7 & 9

4/7: Human Evolution Game Day!

Assignment 4/7: **Human Evolution Game**

April 9 – NO CLASS EASTER

Week 14: April 9 & 14

No Class...I THINK...for HBA and AAPA conference that Ocobock will be at – THIS MAY CHANGE

Week 15: April 21 & 23 Evolutionary Medicine & EGG vs. OD

Reading 4/21:

- 1) Nesse & Williams on Sakai
- 2) Alcock & Shwartz on Sakai
- 3) Cancer & Elephants on Sakai
- 4) Cancer across lifeforms on Sakai – this is long, just peruse – it is a beautiful article

Assignment 4/21:

- 1) Writing Prompt #14

Reading 4/23:

- 1) Rosenberg et al. on Sakai
- 2) Dunsworth et al. 2012 on Sakai
- 3) Dunsworth et al. 2018 on Sakai
- 4) Ocobock 2020 on Sakai

Assignment 4/23:

- 1) Writing Prompt #15

Week 16: April 28 Evolution of Human Diet

Reading 4/28:

- 1) Teaford & Ungar on Sakai
- 2) Crittenden & Schnorr on Sakai
- 3) Bogin on Sakai
- 4) Konner & Eaton on Sakai

Assignment:

- 1) **UN-ESSAY & Meet with Dr. Ocobock**

DISABILITY SERVICES

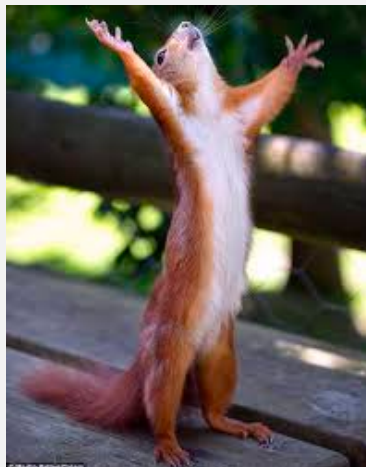
Any student who has a documented disability and is registered with Disability Services should speak with the professor as soon as possible regarding accommodations. Students who are not registered should contact the Office of Disability Services - <https://sarabeadisabilityservices.nd.edu/>

PERSONAL NOTE

Any student who faces challenges securing their food or housing or faces a catastrophic event (death or illness in the family for example) and believes this may affect their performance in the course is urged to contact the Office of Undergraduate Studies (574-631-7098) of University Health Services (574-631-7497) for support. Furthermore, please notify me if you are comfortable doing so. This will enable me to provide any resources that I may possess.

OCOBOCK DISCLAIMERS

1. You should take some time and make friends in this class. I DO NOT give out my notes if you miss class. It is your responsibility to get notes from a friend.
2. As this class is not being run in a traditional way, **I reserve the right to change this syllabus at any time.** I will actively seek your feedback and include it as we move through the semester. As such, it would behoove you to give me that feedback so that I can improve this class and your learning experience along the way.



That glorious feeling when you actually read the whole syllabus!