**ANTHROPOLOGY 201: HUMAN EVOLUTION**

**Course Outline**

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| **Convenor**: Dr Bruce Floyd | | **Tutor**: Dr Alison Wade | |
|  | **Email:** b.floyd@auckland.ac.nz |  | **Email:** awad010@aucklanduni.ac.nz |
|  | **Office:** HSB 850 |  | **Office:** Bio-Anthro Lab (HSB 706) |
|  | **Phone:** 8-5921 |  |  |
|  | **Office Hours:** Tues & Wed, 3-4 pm |  | **Office Hour:** Thurs, 11am - 12pm |

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| **Basis for Course Grade** | **Grade (%)** | **Due Dates** | **Requirements a, b** |
| Lab work (6 lab assignments) | 15 | By end of each lab |  |
| Reading/movie quizzes (10)c | 10 | Each Thursday, 11 am |  |
| Research essay proposal (1) | 15 | April 6, 11:59 pm | ~1000 ± 100 words |
| Research essay (1) | 25 | June 1, 11:59 pm | ~1500 ± 150 words |
| Final exam (1) | 35 | To be scheduled |  |
| **a**The Research essay proposal and the Research essay should be submitted to Turnitin.com via Canvas by 11:59 pm of their respective due dates | | | |
| **b** Word counts do not include the References Cited sections and assume works have been carefully edited. | | | |
| **c** Quizzes are taken outside of class on Canvas before 11 am of the Thursday that they apply to (see below) | | | |

**Prerequisites**

30 points of Anthropology or 60 points passed

*Biological Anthropology staff strongly recommend students take ANTHRO 102 before enrolling in this course. Please consult with Dr Floyd for advice on approaching the course if you have not taken ANTHRO 102.*

**Lectures**

Thursdays, 12 pm to 1 pm in 303-102 (Science, Maths & Physics, Room 102)

Fridays, 11 am to 12 pm in 303-102 (Sciences, Maths & Physics, Room 102)

**Labs**

Thursdays and Fridays in the Biological Anthropology Lab (201E, SSB - East, Room 706)

*See your individual timetable for your lab time.*

Course delivery has been modified over the past two years in response to students’ requests for more time for labs. This year we will have two hours of lecture every week and **two hours of lab every other week** beginning in week 2. Note for students who have Friday labs, we need to shift Lab 3 to the first week after the mid-semester break (see below).

**Description**

This course explores issues fundamental to understanding humans’ place in nature from a biocultural perspective. What led to the evolution of characteristics that distinguish us as a species? How do we define species, and how is this complicated in the fossil record? How can we reconstruct ancient diets and ecologies? The course will examine how new discoveries and advancements in biology are reshaping understandings of our evolutionary history. We will explore how various evolutionary forces act within biosocial contexts to influence distributions of phenotypic variation over multiple generations. Students will be introduced to important concepts like life history theory and niche construction and review others, like natural selection, gene flow, and genetic drift. Students will learn that answers to most of the important questions we ask are incomplete and debated. Take advantage of things you are learning here and elsewhere to ask useful questions. Think about the kinds of evidence required to evaluate them. These are challenging tasks, but exciting too.

**Learning objectives & Employability skills**

* Demonstrate an understanding of current views on human evolutionary history and processes, and an awareness of the contingent, uncertain and important questions that remain
* Learn how hypotheses are developed and tested
* Identify important theories, hypotheses, and research techniques used by biological anthropologists
* Learn to recognise extant primates and fossil hominins, and important aspects of their anatomy
* Conduct independent library research on a topic, finding and assessing information from both primary and secondary sources, identifying issues, strengths and weaknesses, and future needs
* Synthesize and present scientific information in an effective and thoughtful written form

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| **Modified Schedule of Lectures, Labs and Quizzes** | | | |
| **Week** | **Date** | **Topics for the week** | **Assessments due** |
| 1 | 5, 6 Mar | Introduction; the scientific process |  |
| **2** | 12, 13 Mar | Evolutionary mechanisms and classification methods; Evaluating popular science writing  *Lab 1: How to Read a Scientific Article and Skeletal Anatomy* a | **12 Mar** – Quiz #1b |
| 3 | 19, 20 Mar | Primate classification, behaviour, and ecology (1 hr); *Video*: The Changing Ape (1 hr) | **19 Mar** - Quiz #2 |
| **4** | 2, 3 Apr | Early hominins Pt 1  *LAB 2: Human and Ape Anatomy* | **2 Apr** – Quiz #3 |
| 5 | 9 Apr | Early hominins Pt 2 | **6 Apr** - Proposal c due by 11:59 pm  **9 Apr** – Quiz #4 |
|  |  | **Mid-Semester Study Period**  (Friday, 10 April – Monday, 27 April, 2020) |  |
| **6** | 30 Apr, 1 May | The beginning of our genus, early members of Homo  *LAB 3: Australopithecines and Paranthropines* | **30 Apr** – Quiz #5 |
| 7 | 7,8 May | Evolution hypotheses and evolution within our genus | **7 May –** Quiz #6 |
| **8** | 14, 15 May | Mid-Pleistocene evolution and the origin of modern humans  *LAB 4: Members of the genus Homo (early to us)* | **14 May** – Quiz #7 |
| 9 | 21, 22 May | Reconstructing prehistoric diets (1 hr); *Video*: Did Cooking Make Us Human? (BBC) (1 hr) | **21 May** – Quiz #8 |
| **10** | 28, 29 May | Ancient DNA and phylogenetics: Neanderthals, Denisovans, and beyond  *LAB 5:* *Phylogenetics,* *Skeletal Anatomy and Diet* | **28 May** – Quiz #9 |
| 11 | 4, 5 June | Reproduction, alloparenting, and life history evolution; Evolution of the human developmental pattern | **1 June –** Research essay due by 11:59 pm  **4 June** – Quiz #10 |
| **12** | 11, 12 June | Life history evolution (continued)  *LAB 6:* *Discussion: The obstetrical dilemma and human biological diversity* |  |
| a Lab worksheets must be turned in at the end of each scheduled lab in Weeks 2, 4, 6, 8, 10, and 12 | | | |
| b Quizzes accomplished within 10 minutes in Canvas are due at 11 am on Thursday of the applicable week | | | |
| c Research Essay Proposal **must be accomplished successfully.** It may be turned in late, with penalty, by no later than **Monday, April 20th**, to pass the course. | | | |

**Textbook**

There is no required textbook for this course. Rather, there are assigned readings which you can access online for free through the University Library. The textbook from ANTHRO 102 is recommended as a reference and source for review:

Fuentes, A. (2019) *Biological Anthropology: Concepts and Connections.* 3rd edition. New York: McGraw-Hill. Available from the University Bookshop.

**Assessment submission and guidelines**

**Lab work**: There will be labs in Weeks 2, 4, 6, 8, 10 and 12 of the 12 week course. Worksheets for labs will be posted on Canvas the week prior to the relevant lab – **BE SURE YOU PRINT THEM OUT AND BRING THEM TO THE LAB.** Worksheets **must** be handed in (to tutor) at the end of each lab tutorial on either Thursday or Friday.

**Quizzes:** Quizzes on Canvas cover the assigned readings and videos for a given week (except week 1 & 2). Each quiz becomes available on Monday at 8 am and must be completed by **11 am** on Thursday, before the lecture). There is a time limit of 10 minutes for each quiz, therefore you should do the readings and make notes before attempting a quiz.

**Research essay proposal and research essay:** These are directly related assignments. Students will choose one of the three following themes and then identify a narrow topic within as explained further below:

1. Debates about the appearance and nature of the genus *Homo*: when did this genus appear in the fossil record and how do we recognise a fossil as being a member of this genus?
2. Debates about the appearance and spread of “anatomically modern” *H.* sapiens. What routes are likely to have been followed? When? What did we do when we encountered other members of our genus? What can ancient DNA tell us about evidence of interbreeding of other closely related species with our own species, *H. sapiens*?
3. Debates about human behavioural evolution: the relative importance of competition, aggression, and cooperation among past peoples, including nomadic foragers and what this may suggest about the potentials for all of us under varying circumstances.

In selecting one of these themes, find, download and carefully read two or more of the following review articles.

Bae CJ, Douka K, Petraglia MD. 2017. On the origin of modern humans: Asian perspectives. Science 358, eaii9067, 8. [Theme 2]

de Ruiter DJ, Churchill SE, Hawks J, and Berger LR. 2017. Late Australopiths and the Emergence of *Homo.* Annu Rev Anthropol. 46: 99–115. [Theme 1]

Disotell TR. 2012. Archaic Human Genomics. Yrbk Phys Anthropol 55:24–39. [Theme 2]

Kissel M and Kim NC. 2019. The emergence of human warfare: Current perspectives. Am J Phys Anthropol. 168:S67:141–163. [Theme 3]

Lee RB. 2018. Hunter-Gatherers and Human Evolution: New Light on Old Debates. Annu Rev Anthropol. 47: 513-531. [Theme 3]

Villmoare B. 2018. Early Homo and the role of the genus in paleoanthropology. Am J Phys Anthropol. 2018; 165: 72–89. [Theme 1]

Wood B and Boyle EK. 2016. Hominin Taxic Diversity: Fact or Fantasy? Yrbk Phys Anthropol 159: S37-S78. [Theme 1 and Theme 2]

Review articles introduce you to a range of debates, evidence, and interpretations from relevant published research. You can continue building on what you find in a review article in at least two ways. The first thing I recommend is noting and then finding specific articles cited in a given review article that relate to things you find interesting, or are curious about. The second is to search for some of these specific articles that you found interesting in the Web of Science. Once you find one, look at the articles that have cited this article more recently (This is referred to as a cited reference search). Read abstracts of these citing articles and pick articles that you think may be useful. This approach will typically give you a range of views about ideas expressed in a given article. **If you have trouble working with the Web of Science, stop by and speak to Alison (your tutor) or me.**

Accomplishing the suggested activities will help you achieve the important goals of **identifying and narrowing an issue or question from within your chosen theme** that will be the basis for your research essay**. A key to success is getting started early!** We are happy to offer opinions about materials you have read and specific issues you are considering, **but we expect you to take the lead.**

**The research essay proposal:**  You must download the file (Research\_Essay\_Proposal\_Coversheet\_ and\_Marking\_Criteria\_2020.docx) that is available under **Files\Assignment Cover Sheets folder** in Canvas. Fill information in as requested; do NOT remove information from this cover sheet (but read it!). The first part of this assignmentasks for a concise description of the specific issue or research question you have identified from your background reading done on your selected theme. The assignment also includes identification of at least four peer-reviewed journal articles you have read and cited in your summary that you intend to use in your research essay. This is followed by a clear concise summary of one of these articles using a template modified from Lab 1 on “How to Read a Journal Article”. The article you choose to review **SHOULD NOT** be a review article itself. A good article for you to review is narrowly focused on a particular issue using specific evidence. **If in doubt, speak to us** (your tutor or your lecturer).

**Research essay:**  This assignment should explicitly build on work accomplished in your essay proposal. You must first download the file (Research\_Essay\_Coversheet\_and\_Marking \_Criteria\_2020.docx) that is available in under **Files\Assignment Cover Sheets folder** in Canvas. Fill information in as requested; do NOT remove information from this cover sheet. The research essay will consist of 1,500 ± 150 words (12 pt. Times New Roman font, double-spaced) on the narrow issue identified by you in the previous assignment (potentially narrowed further based upon feedback). Address the research question using evidence and arguments that you present and evaluate from peer-reviewed sources you find and cite. Your research essay should include effective use of **at least** 8 peer-reviewed sources. The research essay will **NOT** be accepted unless the research essay proposal is first accomplished to a passing level.

Both the research essay proposal and research essay should be submitted in **Microsoft Word format** by **11:59 pm** on the respective due dates via Canvas.

**Final exam**: To be scheduled during the final exams period. 2 hours, consisting of true-false, multiple choice, fill-in and/or short answer questions.

**Submitting Work Late**

Plan ahead to meet coursework deadlines. You can apply for an extension by contacting me or your tutor via email or during office hours.  You may need to provide supporting information, like a doctor's or counsellor's certificate, but the important thing is to contact us.

With the exception of lab assignments that must be turned in at the end of each lab, late submission of coursework is possible without an extension, so long as you are ready to accept a penalty by losing 5% per day including weekends. **Importantly**, the research essay proposal **must be accomplished successfully.** It may be turned in late, with penalty, but no later than **Monday, April 20th,** to pass the course.

Very late work on the research essay assignment that is accomplished to a passing standard will receive 50% if it is turned in according to guidelines **on or before June 14th**.

Everyone confronts difficulties at some point. So please talk to or email me if you are experiencing troubles finishing or submitting coursework. I will work with you wherever possible and, of course, it is better to get an assignment in late than not get it in at all.

**WHERE TO GO FOR HELP**

If you need advice or support, you are welcome to talk to me or your tutor, Alison. Moreover, the University has a range of support services for students that can be accessed here:

<https://www.auckland.ac.nz/en/on-campus/student-support/personal-support/student-health-counselling.html>

The university provides ongoing support for students with visible and invisible impairments. Information about that support is available here:

<https://www.auckland.ac.nz/en/on-campus/student-support/personal-support/students-with-disabilities.html>

If you need to apply for an aegrotat or compassionate consideration for a test, the relevant information can be found here:

<https://www.auckland.ac.nz/en/students/academic-information/exams-and-final-results/during-exams/aegrotat-and-compassionate-consideration/compassionate-consideration-for-written-tests.html>

If you need to apply for an aegrotat or compassionate consideration for an exam, the relevant information can be found here:

<https://www.auckland.ac.nz/en/students/academic-information/exams-and-final-results/during-exams/aegrotat-and-compassionate-consideration.html>

**Plagiarism**

The University of Auckland will not tolerate cheating, or assisting others to cheat, and views cheating in coursework as a serious academic offence. The work that a student submits for grading must be the student's own work, reflecting his or her learning. Where work from other sources is used, it must be properly acknowledged and referenced. This requirement also applies to sources on the world-wide web, though it is best to avoid these sources in this course. If you find something on the web, identify the original published source and find it in our library system. A student's assessed work may be reviewed against electronic source material using computerised detection mechanisms.

For information on the University of Auckland’s position on Academic Honesty and Plagiarism, and for specific guidelines for the Conduct of Coursework and Conduct of Research, please see: [www.auckland.ac.nz/uoa/about/teaching/plagiarism/plagiarism\_home.cfm](http://www.auckland.ac.nz/uoa/about/teaching/plagiarism/plagiarism_home.cfm)