



INTRODUCTION TO PHYSICAL ANTHROPOLOGY

Archaeology 203 ~ Fall 2012



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Lecture: Tues/Thurs 12:30-13:45, ICT 122

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Course Description

Where, when, and how did humans originate? Why do we fall in love? What can we learn from the skeletal remains of prehistoric peoples? Why do teenagers exhibit risky behaviour? How should we raise our children? Are we unique among animals? Why do we have such big brains? Why do we share so much in common with the great apes and what might this tell us about who we are today? This course is designed to help us to answer these questions by providing a concentrated introduction to human biology, the human place in the animal kingdom, and the fossil evidence for human evolution.

We will begin with a discussion of the development of **evolutionary biology**. A thorough understanding of evolutionary biology is essential as it is the paradigm upon which physical anthropologists base their research. We will then cover **human genetics** at the molecular and population levels. Next we will discuss **human skeletal biology**, which will help us to understand the lives of prehistoric human populations and provide a foundation for subsequent sections on the fossil evidence for human evolution. In order to help us understand our place in the natural world, we will next turn our attention to **biological classification** and **comparative studies**. Subsequently, we will cover **patterns and rates of evolution, the evidence for human evolution, and the major developments in the evolution of our species**. This consideration of the evolution of humans should help us to understand modern human biology, our relationship with the rest of the natural world, and possibly inform our future action as a species. We will finish by studying non-human **primate**

ecology. Primate ecology can help us to determine whether aspects of our behaviors and mental capacities reflect ancestral evolutionary heritage or are new features evolved or socially acquired by our lineage. The topics addressed in this course should enhance your understanding of the nature of humankind.

Course Conventions

1. Lecture: In order to meet the goals of the course you have to come regularly and ON TIME to class and your lab. Be prepared by reading what is assigned for the day. You are responsible for lecture material and any announcements concerning changes in schedule, etc. In this classroom, you are not allowed to use any personal electronic devices such as computers or cell phones. Please note that lectures are *not* a summary of the material presented in the text and that, on the balance, exam questions will be drawn from material emphasized in lecture.

2. Lab: The lab portion of this class is designed to give you hands-on experience with subjects covered in lecture. Your labs begin in the second week of classes. Participation in the labs is required. While we make every effort to ensure that the lab and lecture material overlap, in some cases the lecture material will precede the lab covering that subject by a week or so and in some cases the lab will cover material not yet covered in the lecture.

3. Reading: You are not required to read a great deal in this class. However, keep in mind that *you are not finished with the reading assignment until you thoroughly understand it.* This will sometimes require you to read an assignment more than once. An effective way of ensuring comprehension is to read the assignment then go back through it and summarize its main points in your notebook. The coloring book exercises provide a complimentary pathway to learn the material.

Required Texts

Keenleyside and Lazenby. 2011. *A Human Voyage: Exploring Biological Anthropology.* Nelson Education. USA.

Wilson, Covert, and Dufour. 2012. *Lab Manual for Physical Anthropology.* (Available on the blackboard site for the class.)

Zihlman. 2000. *The Human Evolution Coloring Book.* Harper Perennial, Oakville, CA.

4. Evaluation: You will be evaluated based on your performance on **three mid-term exams** drawn from the lecture (multiple choice and short answer) and your **work in the lab**. Mid-term exam #3 is cumulative. Prior to each exam, I will hand out a list of key terms which have been covered in the lectures, reading assignments, and films and will be found on the exam. Do not define these key terms in isolation; rather, define and understand them in relation to the other key terms within the context of the course.

You must provide advance notice to the instructor if you are unable to take an exam. All requests for deferral of an examination due to/for health reasons must be accompanied by written documentation as outlined in the University Calendar and should be obtained while the student has the physical or emotional problem rather than after recovery. Deferred exams may be allowed in the following circumstances: illness, domestic affliction, or religious conviction. If you have missed an exam for a legitimate reason, you will be able to write a “make up” exam as close to the original exam

as possible. The date and location will be at the convenience of the Archaeology Department. Travel arrangements and misreading of the syllabus are **not** valid reasons for requesting a deferred exam. Deferred exams will not be granted if it is determined that just cause is not shown by the student. This policy also applies to laboratory assignments.

Please note that requests to defer term work past the end of a term go through the Undergraduate Programs Office (UPO) and must be processed by the deadlines that are established in the U. of C. Calendar. You can find the forms you need at: Deferred Term Work Form: <http://www.ucalgary.ca/registrar/files/registrar/defTW.pdf> . You must submit these deferral forms to the Faculty of Arts Associate Dean (Students) through the UPO office: Undergraduate Programs Office, 4th Floor, MacEwan Student Centre. To make an appointment with the Associate Dean, phone (403) 220-8155. Only the Associate Dean approves requests for deferrals which extend beyond the end of a term. Instructors are not involved in such decisions.

Your final grade will be calculated as follows:

Mid-Term Exam #1:	_____	26%
Mid-Term Exam #2:	_____	29%
Mid-Term Exam #3:	_____	10%
Lab Mark (determined by your lab instructor)	_____	35%

A passing grade is not required on any particular component for the student to pass the course as a whole; that is, a student may fail, for example, Mid-Term Exam #2 or any other component and, assuming their overall average percentage earned for the course is above 49, they will pass the course.

Letter grade assignment: At the end of the course, the numerical marks will be summed and a final letter grade will be assigned based on the following basis:

<u>Percentage range</u>	<u>Letter grade</u>	<u>Percentage range</u>	<u>Letter grade</u>
95 or higher	A+	68-72	C+
90-94	A	64-67	C
85-89	A-	59-63	C-
81-84	B+	54-58	D+
77-80	B	50-53	D
73-76	B-	49 or lower	F

5. Academic Misconduct: cheating is regarded as a serious academic offense. Students are advised to consult the University Calendar, which presents a Statement of Intellectual Honesty and definitions and penalties associated with cheating, plagiarism, and other academic misconduct.

6. Retrieving Assignments: The Freedom of Information and Protection of Privacy (FOIP) legislation disallows the practice of having students retrieve assignments from a public place, e.g., outside an instructor’s office or the Department main office. Term assignments must be returned to students individually, during class, or during the instructor’s office hours; if a student is unable to pick up her/his assignment s/he may provide the instructor with a stamped, self-addressed envelope to be used for the return of the assignment.

7. Academic Accommodation: Students with a disability, who require academic accommodation, need to register with the Disability Resource Centre (MC 293, telephone 220-8237). Academic accommodation letters need to be provided to course instructors no later than fourteen (14) days after

the first day of class. It is a student's responsibility to register with the Disability Resource Centre and to request academic accommodation, if required.

8. Office Hours: I enjoy having visitors during my office hours and am happy to schedule additional times as necessary. These hours are yours and I encourage you to take advantage of them, whether you are having difficulty with some aspect of the course, or if you would like to discuss in greater detail something that was touched on in class.

9. E-mail: Students are encouraged to use the lectures, lab periods, and office hours to ask questions. For after-hours questions, the use of email is acceptable. Please write 'ARKY 203' in the 'Subject' portion of the email. The TAs and I receive numerous e-mails everyday. By clearly identifying the subject of your email, you will help us reply more efficiently to your emails. Note that if the TAs or I think that your question and related answer is of general interest, we may decide to post them on the course Blackboard space (your name will not appear).

Safewalk (<http://www.ucalgary.ca/security/safewalk/>): The University of Calgary provides a "safe walk" service to any location on Campus, including the LRT, parking lots, bus zones, and campus housing. For Campus Security/Safewalk call 220-5333. Campus Security can also be contacted from any of the "Help" phones located around Campus.

Archaeology 203- Fall 2012: Schedule¹

Date	Topic	Reading ²	Reading/Drawing in Coloring Book ³
Sept. 11	Introduction: physical anthropology, scientific method	"Scientists' Tools" ⁴	1-1, 1-2
Sept. 13	Evolution: history of evolutionary thought	2-22, "Why we are, as we are" ⁴	1-3, 1-4
Sept. 18	Evolution: history of evolutionary thought	24-48	1-5, 1-6, 1-7
Sept. 20	Evolution: natural selection- Gould video	Darwin-Wallace paper (1858) ⁴ & web video clip ⁵	1-8, 1-9
Sept. 25	Genetics & inheritance: early ideas, peas & people	51-70	1-10, 1-11, 1-12
Sept. 27	Genetics & inheritance: molecular genetics	72-93	2-1 through 2-6, 6-1, 6-7
Oct. 2	Evolution & genetics: modern synthesis & evo devo	evo-devo ⁶	1-16, 1-17
Oct. 4	Evolution & genetics: population genetics	436-446 & web video clip ⁷	
Oct. 9	Human skeletal biology	321-328, 342-349 & Take 2 beers and call me in 1600 yrs ⁴	6-4, 6-5, 6-6
Oct. 11	Mid-Term Exam #1		
Oct. 16	Paleoanthropology: macroevolution & extinction	131-138	2-15
Oct. 18	Paleoanthropology: guiding principles	134-144 & Foote & Millar - Principles of Paleontology ⁴	2-15
Oct. 23	Paleoanthropology: how do we know what we know?, primate origins (Eocene) Primate Classification	144-156	2-7 through 2-11, 5-2, 5-3
Oct. 25	Paleoanthropology: anthropoids, hominoid, and hominid origins (Oligocene through Pliocene)	158-183	1-22, 5-4 through 5-12
Oct. 30	Paleoanthropology: Pliocene hominins and the origin of the genus <i>Homo</i>	184-215	5-14 through 5-20
Nov. 1	Paleoanthropology: Pliocene hominin wrap-up & <i>H. erectus</i>	216-237	5-20 through 5-24
Nov. 6	Paleoanthropology: VIDEO "Alien from Earth"	238-258	5-25 through 5-28
Nov. 8	Paleoanthropology: Archaic <i>Homo sapiens</i> ...early to late	260-279	5-13
Nov. 13	<i>Reading Day~No Class</i>		
Nov. 15	Paleoanthropology: past & present behavior	A new view of the birth of <i>Homo sapiens</i> ⁴	5-29 through 5-30
Nov. 20	Mid-Term Exam #2		
Nov. 22	Primateology: & VIDEO: Prime Time Primates	94-113	3-1 through 3-5
Nov. 27	Primateology: behavior & communication	114-122	3-6, 3-18 through 3-22
Nov. 29	Primateology: field primatology	122-133	3-23 through 3-26
Dec. 4	Primateology: wrap up, 10 enduring questions, demonic males?	A Quest to Save the Orangutan ⁴ , Sapolsky: The Uniqueness of Humans ⁸	3-27 through 3-30, 3-32 through 3-34, 4-35
Dec. 6	Mid-Term Exam #3		

¹ Note, the schedule of topics may change, but the exam dates will not change.

² Page numbers are from the *A Human Voyage* (Keenleyside & Lazenby) textbook.

³ This book will enhance your understanding of the topics addressed both in the lecture and lab sections of this course. You may wish to read/color several sections *in addition to* those listed here.

⁴ On the Arky 203 Blackboard site.

⁵ <http://www.pbs.org/wgbh/evolution/educators/teachstuds/svideos.html> Select Video **1: Isn't Evolution Just a Theory?**

⁶ http://evolution.berkeley.edu/evolibrary/article/evodevo_01 (read slides 1-5, the 5th slide is titled "Understanding Complexity". When you finish you should be able to answer the five questions shown on the first slide.)

⁷ <http://www.pbs.org/wgbh/evolution/educators/teachstuds/svideos.html> Select Video **6: Why Does Evolution Matter Now?**

⁸ http://www.ted.com/talks/lang/eng/robert_sapolsky_the_uniqueness_of_humans.html

DEPARTMENT OF ARCHAEOLOGY

STATEMENT OF INTELLECTUAL HONESTY

(With thanks to the Department of Anthropology for use of their
Statement of Intellectual Honesty as our guide.)

Intellectual honesty is the cornerstone of the development and acquisition of knowledge. Knowledge is cumulative and further advances are predicated on the contributions of others. In the normal course of scholarship, these contributions are apprehended, critically evaluated and utilized as a foundation for further inquiry. Intellectual honesty demands that the contribution of others be acknowledged.

Essentially, plagiarism is a form of cheating that involves submitting or presenting work in a course as if it were the student's own done expressly for that particular course when, in fact, it is not. Most commonly plagiarism exists when:

- a) the work submitted or presented was done, in whole or in part, by an individual other than the one submitting or presenting the work (this includes having another person impersonate the student or otherwise substituting the work of another for one's own in an examination or test).
- b) parts of the work are taken from another source without references to the original author.
- c) the whole work is copied from another source and/or
- d) a student submits or presents work in one course which has also been submitted in another course (even though it may be entirely the work of that student) without the express consent of the instructors of the courses concerned.

While it is recognized that scholarly work often involves reference to the ideas, data and conclusions of other scholars, intellectual honesty requires that such references be explicitly and clearly noted. Plagiarism is an extremely serious academic offense.

The elementary rules of quotation and paraphrase are given below. There are further details and conventions of punctuation that you will need to look up in a manual of style, but observance of these rules should assure compliance with contemporary standards of intellectual honesty.

1. If you use more than four words from any source, put them in quotation marks and identify the source with a reference.

EXAMPLE:

It has been observed that "many tribes are, in a sense, ethnographic fictions"
(Leach 1954: 291).

2. If your direct quotation is more than three lines long, put it in block form, that is, left and right indented and single-spaced, without quotation marks and with a reference.

EXAMPLE:

Malinowski thought of tribes as social systems with well defined boundaries. This conception of tribe was later to be challenged by one of his students, who observed that:

The ethnographer has often only managed to discern that existence of 'a tribe'
because he took it as axiomatic that this kind of cultural entity must exist
(Leach 1954: 291).

3. To paraphrase the work of another means to present the same train of thought and evidence, but rephrased into your own words. Whenever you do this, you must include a note or reference to the source. A common mistake is to break up an author's words, and rearrange them slightly, passing them off as your own. This is wrong, even if you include a note or reference to the source. To do this for more than a few words is to commit plagiarism.

Below are three passages. The first is an excerpt from E.A. Leach, *Political Systems of Highland Burma*. The second is an improper paraphrase of the passage that would be considered plagiarism. The third is a proper paraphrase.

1. It is largely an academic fiction to suppose that in a 'normal' ethnographic situation one ordinarily finds distinct 'tribes' distributed on the map in orderly fashion with clear-cut boundaries between them. I agree of course that ethnographic monographs frequently suggest that this is the case, but are the facts proved? My own view is that the ethnographer has often only managed to discern the existence of 'a tribe' because he took it as axiomatic that this kind of cultural entity must exist. Many such tribes are, in a sense, ethnographic fictions (Leach 1954: 290-1). **(source)**
2. It is an academic misconception to think that in a typical ethnographic situation tribes with clear-cut boundaries can be found distributed in an orderly fashion on the map. Ethnographic monographs often imply that this is so, but what are the facts? The ethnographer is often able to find a 'tribe' only because she takes it for granted that this kind of group must exist. Many tribes are figments of the anthropologist's imagination. **(plagiarism)**
3. Ethnographic monographs often suggest that it is normally the case that there exist in the real world contiguous tribes with clearly discernible boundaries: however, it is Leach's view that such units are found only because the ethnographer has taken their existence for granted (Leach 1954: 290-1). **(proper paraphrase)**

STUDENT ACCOMMODATIONS

"It is the student's responsibility to request academic accommodations. If you are a student with a documented disability who may require academic accommodation and have not registered with the Disability Resource Centre, please contact their office at 220-8237. Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation. You are also required to discuss your needs with your instructor no later than fourteen (14) days after the start of this course."