# Archaeology 305: Human Variation and Adaptation

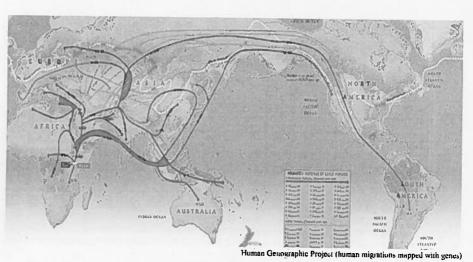
(Winter 2016)



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Lecture: TR 15:30-16:45, KNB 126

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Office hours: Thursday 12:30-1:30 and by appointment

## Course Description

In Natural History, Roman scientific writer Pliny the Elder remarked that, although human countenance is made up of only "ten parts or a little more," people were so fashioned that "among the many thousands no two exist who cannot be distinguished." How are we to explain this rich multiplicity of human physical forms? Anthropology can assist us in our efforts to answer this question. Indeed, the discipline of anthropology investigates the nature and causes of human variation as well as those aspects of life that are common to all of humanity. The anthropological sub-discipline, biological anthropology is concerned with human biology and focuses specifically on human biological variation. Utilizing a biological anthropology perspective, the goal of this course is to introduce you to the scientific study of human variation. We will begin with a consideration of the origins and impacts of the concept of race and follow this with an overview of the scientific method and the anthropological approach to the study of human biological diversity. We will then cover the biological bases of human variation in discussions of genes in human populations, the heritability of traits, and population genetics. In the latter part of the course we will look at human variation as the outcome of adaptation to a variety of environmental factors. This course should help you to understand the biology underlying the variation of human physical and psychic forms and to sort fact from fiction in the contentious and clouded debates over human variation.

#### Course Conventions

1. Lecture: In order to meet the goals of the course you have to come regularly to class and ON TIME. Be prepared by reading what is assigned for the day. You are responsible for lecture material and any announcements concerning changes in schedule, etc. 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. The use of computers, cell phones, or other personal electronic devices in the classroom is not permitted.

- 2. Prerequisites: While I will <u>briefly</u> cover molecular genetics and the inheritance of simple (Mendelian) traits, you should have a basic understanding of these topics prior to taking this course. If you are concerned about this, please see or contact me during the first week of classes.
- 3. Reading: reading assignments will be found both in the text book, Kormondy & Brown, 1998. Fundamentals of Human Ecology, the reserve reading room in the library, and online in the "Course Documents" section of the class Desire to Learn website. In addition to the required readings, there are several recommended readings which are provided to enhance your knowledge of the subject in question. 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.
- **4. Evaluation**: You will be evaluated based on your performance on **three mid-term exams** (each with multiple choice and short answer sections). As well, I will frequently give brief, 5-minute, quizzes in class. These quizzes are designed to assess your understanding of the assigned readings. These quizzes will <u>not</u> affect your grade.

Prior to each mid-term exam I will hand out a list of key terms and concepts that will be covered on the exams. In preparing for each exam, you should not define each key term in isolation; rather, define and understand it in relation to the other key terms within the context of the course.

You must provide advance notice to me if you are unable to take an exam. All requests for deferral of an examination due to 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 Department of Anthropology & Archaeology. Travel arrangements and misreading of the syllabus are <u>not</u> valid reasons for requesting a deferred exam. Deferred exams will be granted only if it is determined that just cause is shown by the student.

Please note that requests to defer term work past the end of a term go through the Student Success Centre / Undergraduate Programs Office (<a href="http://www.ucalgary.ca/ssc/">http://www.ucalgary.ca/ssc/</a>) and must be processed by the deadlines that are established in the University of Calgary Calendar. You can find the deferred term work form at <a href="http://www.ucalgary.ca/registrar/forms\_students">http://www.ucalgary.ca/registrar/forms\_students</a>. You must submit these deferral forms to the Faculty of Arts Associate Dean (Students) through the Student Success Centre / Undergraduate Programs Office (<a href="http://www.ucalgary.ca/ssc/">http://www.ucalgary.ca/ssc/</a>). To make an appointment with the Associate Dean, phone (403) 220-3580. 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:	42%
Mid-Term Exam #2:	48%
Mid-Term Exam #3:	10%

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.

<u>Letter grade assignment</u>: 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:

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

5. Academic Accommodation Policy: The purpose of academic accommodation is to provide students with documented disabilities equal opportunity to master the essentials of a post-secondary education. Students with disabilities at the University of Calgary have met all admission requirements but may have done so with the use of accommodations. Similarly, they are expected to meet all academic and non-academic requirements. Adaptive technology and other academic accommodations do not relieve students of their responsibility to develop the essential skills and abilities expected of all students.

Students with a disability, who require academic accommodation, must register with the Student Accessibility Services (<a href="http://www.ucalgary.ca/access/">http://www.ucalgary.ca/access/</a>, MacEwan Student Centre 452, telephone 220-8237). Academic accommodation letters need to be provided to me *and* your lab TA no later than fourteen (14) days after the first day of class. It is a student's responsibility to register the Student Accessibility Services and to request academic accommodation, if required.

- 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. 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.
- **8. 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. 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 Desire to Learn class website (your name will not appear). While I will do my best to reply to your message as soon as possible I will generally not be able to do so on weekends or holidays. Overall, I attempt to reply to all messages within four days.
- 9. Writing across the Curriculum: Writing skills are not exclusive to English courses and, in fact, should cross all disciplines. The University supports the belief that throughout their University careers, students should be taught how to write well so that when they graduate their writing abilities will be far above the minimal standards required at entrance. Consistent with this belief, students are expected to do a substantial amount of writing in their University courses and, where

appropriate, instructors can and may use writing and the grading thereof as a factor in the evaluation of student work. The Writing Support services provided by the (<a href="http://www.ucalgary.ca/ssc/writing-support">http://www.ucalgary.ca/ssc/writing-support</a>) in the Student Success Centre can be utilized by all students who feel they require further assistance.

10. Electronic devices: Students in this course are not allowed to use any portable electronic devices, other than a calculator, in class.

### Schedule1

Class	Date		Topic	Readings <sup>2</sup>
			hate crimes, anthropology, science as a way	Sagan (Scientists' Tools), CBC hate
1	Jan.	12	of knowing	crimes reading, Kristof
				Marks (Black, White); Culotta
				(Roots of Racism) and either Akpan
				or Wiesel, Critchley (Dangers of),
			History of the race concept: Morton, Social	Optional readings: Lipstadt (Jews
2	Jan.	14	Darwinism, origins of the race concept	worried), Gladstone (anti-semitism)
				SSRC (Is Race Real?), Optional
			History of the race concept: Linnaeus,	readings: Bauer (2007) & Blumentha
3	Jan.	19	Buffon & Physical Anthropology	(2009); Milgram (1973),
				Ehrlich & Holm (Bio. View of Race),
				Saey (2012); U. Utah (2013); Options
			History of the race concept: Why the	readings: Barbujani et al (1997),
4	Jan.	21	rejection of race concept?	Disotell (2000).
				Cummings (Mutation); Lewis
				(Extensions & Exceptions); Informed
				consent for genetics testing, NPR -
				New Genetic Test, NPR- Ethics of
			Genetic variation: human genetic diversity &	Genetic Tests, Optional reading:
5	Jan.	26	sources of genetic variation	US-Venezuela (Huntington's onset)
			Patterns of Inheritance: simple & complex	Groopman (Decoding Destiny); Lewis
6	Jan.	28	traits	(Complex Traits)
7	Feb.	2	Complex traits: IQ, intelligence & heritability	Jones (Calliban's Revenge)
8	Feb.	4	Complex traits: IQ, intelligence & heritability	Lewontin (Mental Traits)
				Fausto-Sterling (5 Sexes), NOVA-How
		-		is sex determined?, Optional reading
				Graves (2014), Fausto-Sterling (5
9	Feb.	9	Complex traits: sex determination & gender	Sexes Revisited)
10	Feb.	11	Mid-Term Exam #1	

(continued on the next page)

Schedule<sup>1</sup> (continued)

Class	Date		Торіс	Readings <sup>2</sup>
n/a	Feb.	16	& 18 Reading Week	- No Classes
11	Feb.	23	Complex traits: gender roles	NPR – "What if your child" & Optional readings: Padawar (2012), Minto (2003)
12	Feb.	25	Complex traits: gender roles	Dreger (Is Anatomy Destiny?), Sapolsky (Testosterone), Optional reading: Women & Mental Illness, Optional video: Green (51 pretty shocking facts)
			Human population biology: origins, theory,	
13	Mar.	1	levels of adaptation	K & B <sup>3</sup> Ch. 1 & 6
			Climatic stress & human variation: solar	
14	Mar.	3	stress, thermal stress	Loomis, Jablonski
			Climatic stress & human variation: thermal	
15	Mar.	8	stress (cont.)	K & B Pp. 131—149
			Climatic stress & human variation: thermal	
16	Mar.	10	stress (cont.)	K & B Pp. 149—161
				K & B Pp. 186—202, Nutrition
			Adaptation to malnutrition: dietary	Handout, UNICEF (see summary
17	Mar.	15	requirements	indicators on p. 95)
18	Mar.	17	Adaptation to malnutrition: variation in susceptibility to starvation	K & B Pp. 202-204; Brown & Konner (Anthro & Obesity)
19	Mar.	22	Adaptation to Hypoxia	K & B Pp. 162-173 & Hypoxia Handout (Beall's work)
20	Mar.	24	Mid-Term Exam #2	
21	Mar.	29	Adaptation to Infectious Disease	K & B pp. 204-224 & Orent (How plagues)
22	Mar.	31	Adaptation to Infectious Disease	Dugger & McNeil (Polio), Landsman (Polio whack), Kolata (plague & HIV)
			Population Ecology: terms & concepts in	
23	Apr.	5	demography	K & B Ch. 4
			Population Ecology: 4 evolutions in pop.	K & B Ch. 5, This American Life
24	Apr.	7	growth, HIV & pop. growth rate	(podcast): "Words"
25	Apr.	12	Mid-Term Exam #3	

<sup>&</sup>lt;sup>1</sup> The schedule of topics may change, but the exam dates will not change.

<sup>&</sup>lt;sup>2</sup> For a detailed bibliography of the readings, please see the pages below. <u>The reading assignments are subject to change</u> should I find, during the present semester, more recent publications which better cover the topic considered. If this occurs, I will inform you at least 2 weeks prior to the relevant class.

<sup>&</sup>lt;sup>3</sup> K & B = Kormondy & Brown's *Fundamentals of Human Ecology*.

### Readings

Some readings are available as pdfs on the Desire to Learn website, some only in the McKimmie Library Reserve Reading Room, and others online. Note, this bibliography does NOT include readings from the Kormondy and Brown text.

Akpan, Uwem (2008) Say You're One of Them. Hachette Book Group. New York. (While the entire book is appropriate for this course, the reading assignment only covers the book's last chapter: "My Parent's Bedroom"). (pdf posted on Desire to Learn website)

Barbujani et al. (1997) An apportionment of human DNA diversity. Proceedings of the National Academy of Sciences 94:4516-4519. <a href="http://www.ncbi.nlm.nih.gov/pmc/articles/PMC20754/">http://www.ncbi.nlm.nih.gov/pmc/articles/PMC20754/</a>

Bauer (2006) On the Holocaust and Other Genocides. United States Holocaust Memorial Museum. <a href="http://www.ushmm.org/m/pdfs/20070215-bauer.pdf">http://www.ushmm.org/m/pdfs/20070215-bauer.pdf</a>

This paper and the paper below by Blumentahl were presented at the United States Holocaust Memorial Museum. It can be found as a podcast on iTunes (go to the iTunes store and search for Yehuda Bauer. This should bring up the iTunes U episode. It is 1 hour and 46 minutes long). For further talks on genocides around the globe, in the iTunes store, search for Genocide: History & Concept or visit <a href="https://itunes.apple.com/ca/itunes-u/voices-on-genocide-prevention/id427279111?mt=10">https://itunes.apple.com/ca/itunes-u/voices-on-genocide-prevention/id427279111?mt=10</a>.

Blumenthal (2009) How Might Another Holocaust be Prevented. United States Holocaust Memorial Museum. <a href="http://www.js.emory.edu/BLUMENTHAL/Hol%20Prevention.htm">http://www.js.emory.edu/BLUMENTHAL/Holocaust%20Prevention.htm</a> http://www.js.emory.edu/BLUMENTHAL/Holocaust%20Prevention.pdf

Brown, P.J. and M. Konner. 1987. An anthropological perspective on obesity. *Annals of the New York Academy of Sciences*. Vol. 499. Pp. 29-46. http://onlinelibrary.wiley.com.ezproxy.lib.ucalgary.ca/doi/10.1111/j.1749-6632.1987.tb36195.x/pdf

CBC News Online. 2004. Indepth: Hate Crimes – What is a hate crime? <a href="http://www.cbc.ca/news/canada/story/2011/06/15/f-hate-crimes.html">http://www.cbc.ca/news/canada/story/2011/06/15/f-hate-crimes.html</a>

Critchley, S (2014) The Dangers of Certainty: A Lesson From Auschwitz. The New York Times (<a href="http://opinionator.blogs.nytimes.com/2014/02/02/the-dangers-of-certainty/?">http://opinionator.blogs.nytimes.com/2014/02/02/the-dangers-of-certainty/?</a> php=true&\_type=blogs&src=me&ref=general&\_r=0)

Culotta, E. 2012. Roots of Racism. Science. 336:825-827. (access via E-journals on U. Calgary Library website: http://library.ucalgary.ca/journals).

Cummings, Michael R. 2006. Mutation: the source of genetic variation. In *Human Heredity: Principles and Issues*. Seventh Edition. Thompson Publishing. USA. Pp. 244-264. (pdf posted on Desire to Learn)

Disotell (2000) Human genomic variation. Genome Biology 1(5):comment2004.1–2004.2. <a href="http://genomebiology.biomedcentral.com/articles/10.1186/gb-2000-1-5-comment2004">http://genomebiology.biomedcentral.com/articles/10.1186/gb-2000-1-5-comment2004</a>

Dreger, Alice 2011. Is Anatomy Destiny? *Ted.com* <a href="http://www.ted.com/talks/lang/en/alice\_dreger\_is\_anatomy\_destiny.html">http://www.ted.com/talks/lang/en/alice\_dreger\_is\_anatomy\_destiny.html</a>

Dugger and McNeil 2006. On the brink: Polio – A fragile immunity – Rumor, fear, and fatigue hinder final push to end polio. New York Times (20 March 2006) <a href="http://www.nytimes.com/2006/03/20/international/asia/20polio.html?pagewanted=all">http://www.nytimes.com/2006/03/20/international/asia/20polio.html?pagewanted=all</a>

Erhlich, Paul R. and Richard W. Holm 1964. A biological view of race. In *The Concept of Race* Ashley Montagu, editor. Collier Books, London: pp. 154-179. (pdf posted on Desire to Learn website)

Fausto-Sterling, Anne. 1993. The five sexes. *The Sciences*. March/April 1993. <a href="http://www.fd.unl.pt/docentes\_docs/ma/TPB\_MA\_5937.pdf">http://www.fd.unl.pt/docentes\_docs/ma/TPB\_MA\_5937.pdf</a> or <a href="http://ezproxy.lib.ucalgary.ca:2048/login?url=http://search.ebscohost.com/login.aspx?direct=true&d=a9h&AN=9305215658&site=ehost-live">http://ezproxy.lib.ucalgary.ca:2048/login?url=http://search.ebscohost.com/login.aspx?direct=true&d=a9h&AN=9305215658&site=ehost-live</a> (select PDF Full Text on the left side of the page)

Fausto-Sterling, Anne. 2000. The five sexes, revisited. *The Sciences*. July/August 2000. <a href="http://www.aissg.org/PDFs/Five-Sexes-Revisited-2000.pdf">http://www.aissg.org/PDFs/Five-Sexes-Revisited-2000.pdf</a> (optional reading)

Gladstone, R (2014) 26 Percent of World's Adults Are Anti-Semitic, Survey Finds. *The New York Times* (http://www.nytimes.com/2014/05/14/world/26-percent-of-worlds-adults-are-anti-semitic-survey-finds.html)

Graves, J (2014) Sex, genes, the Y chromosome and the future of men. *The Conversation*. <a href="http://theconversation.com/sex-genes-the-y-chromosome-and-the-future-of-men-32893">http://theconversation.com/sex-genes-the-y-chromosome-and-the-future-of-men-32893</a>

Green, L (2014) 51 Pretty Shocking Facts That Make Things Harder For Every Woman You Have Ever Met. <a href="http://www.upworthy.com/51-pretty-shocking-facts-that-make-things-harder-for-every-woman-you-have-ever-met?c=reccon1">http://www.upworthy.com/51-pretty-shocking-facts-that-make-things-harder-for-every-woman-you-have-ever-met?c=reccon1</a> (optional video)

Groopman, Jerome 1998. Decoding Destiny. New Yorker. Februrary 9, 1998. Pp. 42-47. <a href="http://jeromegroopman.com/articles.html">http://jeromegroopman.com/articles.html</a> (8<sup>th</sup> article on the list)

Informed consent for genetic testing- Presymptomatic Huntington disease testing <a href="http://geneticslab.emory.edu/documents/informed-consent/huntington-disease-consent-form.pdf">http://geneticslab.emory.edu/documents/informed-consent/huntington-disease-consent-form.pdf</a>

Jablonski, NG (2010) The Naked Truth. *Scientific American*. p. 42-29. <a href="http://adamoliverbrown.com/wp-content/uploads/2015/02/2010">http://adamoliverbrown.com/wp-content/uploads/2015/02/2010</a> EvolutionOfHairlessness.pdf

Jones, Steve. 1993. Caliban's Revenge. In *The Language of Genes*. Anchor Books, NY. Pp. 182-196. (pdf posted on Desire to Learn website)

Kolata, G 1998. Scientists probe the genetic mysteries of a pair of deadly plagues. New York Times <a href="http://www.nytimes.com/1998/05/26/science/scientists-see-a-mysterious-similarity-in-a-pair-of-deadly-plagues.html?pagewanted=all&src=pm">http://www.nytimes.com/1998/05/26/science/scientists-see-a-mysterious-similarity-in-a-pair-of-deadly-plagues.html?pagewanted=all&src=pm</a>

Kristof, Nicholas D 2009. Learning How to Think, *New York Times*, 26 March. <a href="http://www.nytimes.com/2009/03/26/opinion/26Kristof.html?r=0">http://www.nytimes.com/2009/03/26/opinion/26Kristof.html?r=0</a>

Landsman, K (2014) Polio whack-a-mole. *Aeon* <a href="http://aeon.co/magazine/health/how-anti-vaxxers-fuel-the-spread-of-polio/">http://aeon.co/magazine/health/how-anti-vaxxers-fuel-the-spread-of-polio/</a>

Lewis, Ricki. 2006. Complex Traits. In Human Genetics. McGraw-Hill. (Reserve reading)

Lewis, Ricki. 2006. Extensions and exceptions to Mendel's laws. In *Human Genetics*. McGraw-Hill. (Reserve reading)

Lewis, Ricki. 2006. Mendel's laws. In Human Genetics. McGraw-Hill. (This is an optional reading, for review of inheritance of simple (Mendelian) traits, if necessary. It can be found in the reserve section of the library)

Lewontin, Richard. 1982. Mental Traits. In. *Human Diversity*. WH Freeman, New York. Chapter 7. (pdf posted on Desire to Learn website)

Lipstadt, D (2014) Why Jews are Worried. *The New York Times* <a href="http://www.nytimes.com/2014/08/21/opinion/deborah-e-lipstadt-on-the-rising-anti-semitism-in-europe.html?action=click&contentCollection=Opinion&module=RelatedCoverage&region=Margin alia&pgtype=article</a>

Loomis, WF. 1970. Rickets. Scientific American Vol. 223. June. Pp. 77-91. (pdf posted on Desire to Learn website)

Marks, Jonathan 1994. Black, White, Other. *Natural History*. Pp. 32-35. <a href="http://ezproxy.lib.ucalgary.ca:2048/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=9412070267&site=ehost-live">http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=9412070267&site=ehost-live</a>

Milgram, S (1973) The Perils of Obedience. Harper's Magazine Vol. 247, Pp. 62-78 (To find this article go to <a href="http://library.ucalgary.ca/journals">http://library.ucalgary.ca/journals</a>, the box under "Find Electronic Journals by title or ISSN" type Harpers, scroll down to Harper's magazine from 1931 to 1976, select this link, the ProQuest "Periodicals Archive Online" page will open. Type The Perils of Obedience in the box, select search, then scroll down to find the paper.)

Minto et al. 2003. The effect of clitoral surgery on sexual outcome. The Lancet. 361:1252-1257. DOI: 10.1016/S0140-6736(03)12980-7 (optional reading, available via U. Calgray e-journals <a href="http://library.ucalgary.ca/journals">http://library.ucalgary.ca/journals</a>) (optional reading)

Molnar, Stephen 1998. Human Variation. Prentice-Hall, New Jersey. Pp. 34-71.(This is an optional reading, for genetics review, if necessary.) (Reserve reading)

NOVA. How is sex determined? <a href="http://www.pbs.org/wgbh/nova/body/how-sex-determined.html">http://www.pbs.org/wgbh/nova/body/how-sex-determined.html</a>

NPR 2011. New Genetic Test Screens Would-Be Parents <a href="http://www.npr.org/2011/01/13/132908098/new-gene-test-screens-nearly-500-childhood-diseases">http://www.npr.org/2011/01/13/132908098/new-gene-test-screens-nearly-500-childhood-diseases</a>

NPR 2011. The Ethics Of Genetic Tests For Would-Be Parents. http://www.npr.org/2011/01/13/132908943/The-Ethics-Of-Genetic-Screening-For-Parents?ps=rs

NPR 2011. What If Your Child Says, 'I'm In The Wrong Body'? <a href="http://www.npr.org/2011/12/26/144156917/transgender-kids">http://www.npr.org/2011/12/26/144156917/transgender-kids</a>

Orent, W (2014) How plagues really work. *Aeon* <a href="http://aeon.co/magazine/health/the-next-pandemic-will-not-erupt-from-the-rainforest/">http://aeon.co/magazine/health/the-next-pandemic-will-not-erupt-from-the-rainforest/</a>

Padawer, R (2012) What's So Bad About a Boy Who Wants to Wear a Dress? The New York Times

http://www.nytimes.com/2012/08/12/magazine/whats-so-bad-about-a-boy-who-wants-to-wear-adress.html?pagewanted=all&\_r=0 (optional reading)

Saey (2012) Genetic diversity exploded in recent millennia. Science News. <a href="https://www.sciencenews.org/article/genetic-diversity-exploded-recent-millennia">https://www.sciencenews.org/article/genetic-diversity-exploded-recent-millennia</a>

Sagan, Carl 1995. The Demon-Haunted World: Science as a Candle in the Dark Science as a Candle in the Dark, Random House / Ballantine Books (section on Scientists' Tools for Skeptical Thinking) (pdf posted on Desire to Learn website)

Sapolsky, Robert M. 1997. The Trouble with Testosterone. In: *The Trouble With Testosterone* and Other Essays on the Biology of the Human Predicament. Simon & Schuster, NY. Pp. 147-159. (pdf posted on Desire to Learn website)

Special Pathogens Branch. 2010. Ebola hemorrhagic fever information packet. Centers for Disease Control and Prevention. Atlanta, GA. http://www.cdc.gov/ncidod/dvrd/spb/mnpages/dispages/Fact\_Sheets/Ebola\_Fact\_Booklet.pdf http://www.cdc.gov/vhf/ebola/outbreaks/guinea/index.html

SSRC. 2005. Is Race Real? (<a href="http://raceandgenomics.ssrc.org/">http://raceandgenomics.ssrc.org/</a>)
Assigned readings include:

Leroi, Armand Marie 2005. A Family Tree in Every Gene. The New York Times. Published March 14. p. A23. (http://raceandgenomics.ssrc.org/Leroi/) and 1 of the following 4 papers (you choose the one you wish to read)

- Goodman, Alan. 2005. Two Questions About Race.
- Graves, Joseph L. 2005. What We Know and What We Don't Know: Human Genetic Variation and the Social Construction of Race
- Kaufman, Jay S. 2005. Anatomy of a Medical Myth
- Lewontin, R. C. 2005. Confusions About Human Races

Talenti and Goldstein. 2006. Genomics meets HIV-1. *Nature Reivews Microbiology*. 4:865-873. (access via E-journals on U. Calgary Library website: <a href="http://library.ucalgary.ca/journals">http://library.ucalgary.ca/journals</a>). (optional reading)

This American Life (Podcast) 2002. "Words" <a href="http://www.thisamericanlife.org/radio-archives/episode/204/81-Words">http://www.thisamericanlife.org/radio-archives/episode/204/81-Words</a>

UNICEF. 2012. *The State of the World's Children 2012*. Statistics- Nutrition (see summary columns in table "Low Birthweigh", "Underweight", "Stunting", & "Wasting") http://www.unicef.org/sowc2014/numbers/documents/english/EN-FINAL%20Table%202.pdf

US-Venezuela Collaborative Research Project, Wexler (2004) Venezuelan kindreds reveal that genetic and environmental factors modulate Huntington's disease age of onset. *Proceedings of the National Academy of Sciences* 101(10):3498-3503. (access via E-journals on U. Calgary Library website).

U. Utah (2013). Learn Genetics. Making SNPs Make Sense (view all sections in <u>both</u> What is a SNP? and What is a Haplotype?). <a href="http://learn.genetics.utah.edu/content/pharma/snips/">http://learn.genetics.utah.edu/content/pharma/snips/</a>

Wiesel, Elie. 1958. Night. Bantam Books. New York. (pages 1 - 43) (pdf posted on Desire to Learn website)

Or here: http://static1.1.sqspcdn.com/static/f/523476/26270953/1432918801417/eliewieselnightfulltext\_3\_26\_2014\_3\_23\_04\_pm.pdf?token=YuTRiv7WyhCkEc4Kpyhog4JMm3c%3D

**Human research:** Students will be not be expected to conduct research on themselves or others in this course.

Supplemental fees: There are no mandatory supplemental fees for this course.

Freedom of Information and Protection of Privacy Act

The University of Calgary is committed to protecting the privacy of individuals who work and study at the University or who otherwise interact with the University in accordance with the standards set out in the Freedom of Information and Protection of Privacy Act.

Please refer to the following link for detailed information: <a href="http://www.ucalgary.ca/legalservices/foip/foip-hia">http://www.ucalgary.ca/legalservices/foip/foip-hia</a>

#### Academic Misconduct

Academic dishonesty is an unacceptable activity at the University of Calgary and students are **strongly advised** to read the Student Misconduct section of the University Calendar. Quite often, students are unaware of what constitutes academic dishonesty or plagiarism. The most common are:

1) Presenting another student's work as your own

2) Presenting an author's work or ideas as you own without proper referencing

3) Using work completed for another course

This activity will not be tolerated and students conducting themselves in this manner will be dealt with according to the procedures outlined in the University Calendar.

For detailed information on what constitutes academic misconduct, please refer to the following link:

http://www.ucalgary.ca/pubs/calendar/current/k-2-1.html

## Plagiarism

Plagiarism involves submitting or presenting work as if it were the student's own work when it is not. Any ideas or materials taken from another source written, electronic, or oral must be fully and formally acknowledged. Plagiarism includes but is not limited to:

- (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 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 reference to the original author,

(c) The whole work (e.g., an essay) 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 (although it may be completely original with that student) without the knowledge of or prior agreement of the instructor involved.

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 offence. It is recognized that clause (d) does not prevent a graduate student incorporating work previously done by him or her in a thesis or dissertation.

#### **Emergency Evacuation Assembly Points**

In the event of an emergency that requires evacuation, please refer to the following link to become familiar with the assembly points for the class:

http://www.ucalgary.ca/emergencyplan/assemblypoints

#### Safewalk Information

Campus Security, in partnership with the Students' Union, provides the Safewalk service <a href="http://www.ucalgary.ca/security/safewalk">http://www.ucalgary.ca/security/safewalk</a>, 24 hours a day, every day, to any location on Campus including the LRT, parking lots, bus zones and University residences. Contact Campus Security at (403) 220-5333 or use a help phone, and Safewalkers or a Campus Security Officer will accompany you to your campus destination. Alternatively, Send an e-mail to <a href="mailto:safewalk.request@ucalgary.ca">safewalk.request@ucalgary.ca</a> to request a walk via e-mail. This e-mail address will be monitored Monday -Friday from 6:40PM until 11:20PM while the fall and winter lectures are in session. You will receive a prompt response from a volunteer with a confirmation and response time. Please wait for the confirmation before leaving your workstation. If the e-mail option is not available at the time you contact us, you will receive an automated e-mail response message advising you to call Campus Security @ 403-220-5333 to request a walk.

#### Faculty of Arts Program Advising and Student Information Resources

- Have a question, but not sure where to start? The new Faculty of Arts Student Centre is your information resource for everything in Arts! Drop in at SS102, call us at 403-220-3580 or email us at <a href="mailto:artsads@ucalgary.ca">artsads@ucalgary.ca</a>. You can also visit the Faculty of Arts website at <a href="http://arts.ucalgary.ca/undergraduate">http://arts.ucalgary.ca/undergraduate</a> which has detailed information on common academic concerns.
- For program planning and advice, contact the Student Success Centre (403) 220-5881 or visit them in their new space on the 3<sup>rd</sup> Floor of the Taylor Family Digital Library.
- For registration (add/drop/swap), paying fees and assistance with your Student Centre, contact Enrolment Services at (403) 210-ROCK [7625] or visit them at the MacKimmie Library Block.

#### Contact Information for Student and Faculty Representation

Student Union Vice President – Academic

Stephan Guscott

Phone: (403) 220-3911

Email: suvpaca@ucalgary.ca

Student Union Faculty Representatives for the Faculty of Arts

Haider Ali
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