

<http://content.csbs.utah.edu/~rogers/tch/ant3234/index.php>

Genes, Health, and History

Course Description This course will use human genes to study health and history. Through genetic data, we will see how human populations have grown, moved, and mixed. We will also see how humans have adapted to a changing environment, with results that are sometimes beneficial and sometimes unfortunate. The first part of the course provides background on evolution, the rest uses genes to study history, adaptation and health.

Grading Grades will be based on weekly quizzes, which are administered through Canvas. Each quiz will consist of about 8 questions. Most of these come from that week's lectures and readings, but some will come from earlier in the semester. The quizzes will become available sometime on Friday and will close at midnight the next Monday. The last quiz is due the day of the final. It is no longer than the other quizzes. All quizzes have equal weight in the final grade. You have 20 minutes for each quiz, and you can only take it once. On Thursdays, we will review in class the quiz that was due the previous Monday.

If you will need a makeup quiz, please let me know in advance.

ADA statement The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability Services (CDS), 162 Olpin Union Building, 581–5020 (V/TDD). CDS will work with you and the instructor to make arrangements for accommodations. All information in this course can be made available in alternative format with prior notification to the Center for Disability-Services.

Faculty and student responsibilities All students are expected to maintain professional behavior, according to the Student Code, spelled out in the Student Handbook. Students have specific rights in the classroom as detailed in Article III of the Code. The Code also specifies proscribed conduct (Article XI) that involves cheating on tests, plagiarism, and/or collusion, as well as fraud, theft, etc. Students should read the Code carefully and know they are responsible for the content. According to Faculty Rules and Regulations, it is the faculty responsibility to enforce responsible classroom behaviors, beginning with verbal warnings and progressing to dismissal from class and a failing grade. Students have the right to appeal such action to the Student Behavior Committee.

Readings

Assignment	Availability
Fairbanks. 2007. <i>Relics of Eden</i>	bookstore
Manco. 2015. <i>Ancestral Journeys</i>	bookstore
Reich. 2018. <i>Who We Are and How We Got Here</i>	bookstore
All other readings	course website

Contact EMAIL: sregorra@gmail.com; MEETINGS VIA ZOOM: by appointment.

Syllabus The syllabus below is provisional and will change during the semester. I will notify the class of changes and will keep the current version on the web page. Reading assignments for each lecture topic are listed on the class web site.

Date	Lecture
Aug 24 T	Introduction
26 H	Molecular fossils; chromosome fusion Jumping genes
31 T	Pseudogenes Molecular evolution
Sep 02 H	Mitochondrial genetic evidence about population size
07 T	Nuclear genetic evidence about population size
09 H	Genetics evidence about subdivision & gene flow
14 T	Genetics evidence about natural selection
16 H	Archaic admixture
21 T	Superarchaic admixture
23 H	Origin of modern humans
28 T	Early modern Eurasians
30 H	How archaics shaped the modern immune system
Oct 05 T	Mesolithic Scandanavia
07 H	Mesolithic adaptations in Europe
12 T	*** NO CLASS
14 H	*** NO CLASS
19 T	Genetics and the Neolithic
21 H	The European Neolithic: pots or people
26 T	The Neolithic and health
28 H	Digesting starch Crohn's disease
Nov 02 T	Hemochromatosis (John McCullough)
04 H	Language and history
09 T	Indo-Europeans
11 H	Bell Beaker culture
16 T	Milk
18 H	Human infectious diseases
23 T	Skin color Males and females in stratified societies
25 H	*** NO CLASS
30 T	India
Dec 02 H	The Americas
07 T	Africa
09 H	Genetic geography
Dec 16 H	final quiz is due at midnight