

Anth 6969 (3 cr)
Mon 2–5 PM
Prof: Alan Rogers

Printed January 31, 2022
Zoom

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

Archaeogenetics

Course Description This course will introduce graduate students to the use of genetic data in the study of evolutionary history. Students will use genetic data in projects to draw inferences about the history of population size, subdivision, gene flow, and adaptive evolution.

Some class meetings will discuss articles from the literature, which illustrate the methods we are using. Others will cover computer packages for dealing with genetic data and on resolving problems that arise in the context of student projects.

Grading Grades will be based on four equally-weighted components (1) class discussion, (2) a computer simulation, (3) a research project involving demographic history, and (4) another involving adaptive evolution.

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, 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.

Readings Articles from the literature, which will be available on the class website. As background, students should have a copy of

Gillespie, John. 2004. *Population Genetics, a Concise Guide*, 2nd edition

which is available at online book stores.

Contact sregorra@gmail.com

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 site.

Date	Topic
Jan 10 M	Introduction
17 M	*** NO CLASS
24 M	History of population size in a single population
31 M	History of population size in a single population
Feb 07 M	History of a subdivided population
14 M	History of a subdivided population
21 M	*** NO CLASS
28 M	History of a subdivided population
Mar 07 M	*** NO CLASS

14 M Writing your own coalescent simulation
21 M Writing your own coalescent simulation
28 M Coalescent simulation using ms-prime
Apr 04 M Coalescent simulation using ms-prime
11 M Inference about selection
18 M Inference about selection
25 M Inference about selection