BIOL-1129 Evolutionary Genetics and Genomics

Instructor: Michael Purugganan

Course Description: This is a reading/discussion course, where the goal is to get acquainted with methods and approaches in evolutionary genomics by reading reviews and primary papers and discussing these in class.

Pre-requisite: N/A

Textbook and Required Materials: Weekly readings as assigned

Grading:
- Weekly essays 40%
- Class participation/attendance 40%
- Final paper 20%

Topics:
- Evolutionary synthesis
- Neutral and nearly-neutral theories
- Phylogenies
- Human population genetics
- Selection
- Speciation
- Domestication
- Social evolution
- Selection
- Microbial/Disease evolution
- Viral evolution
- Evolution and cancer
- Evolution of aging