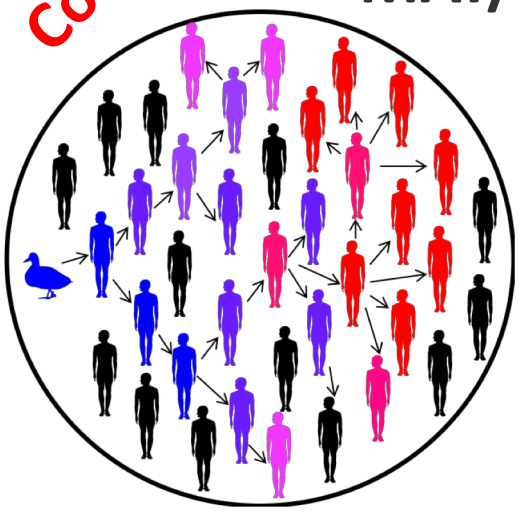
New Course!

Probability and Stochastic Processes with Applications to Biology MAT/BIS 107 (CRN 92993/92994)

Spring 2019



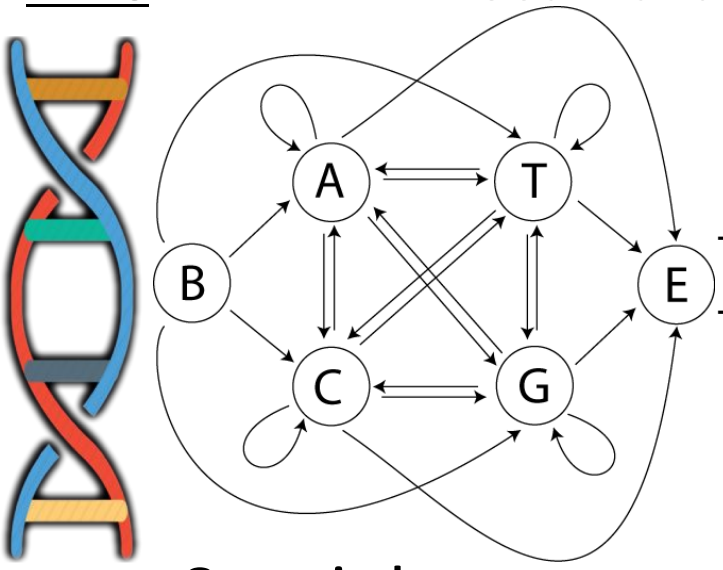
Disease outbreaks

When are disease outbreaks likely? If your medical test was positive, what is the chance you are sick? How can one simulate genomic big data experiments? Which species are at greatest extinction risk? Stochastic models can provide insights to these & many more questions in biology.

Description: Introduction to probability theory and stochastic processes with biological, medical, & bioengineering applications. Combinatorics, discrete & continuous random variables, Bayes' formula, conditional probability, Markov chains, Poisson processes, & random walks. Computer labs cover computational techniques. Pre-requisites: MAT/BIS 27A or MAT 22A or permission of instructor

Instructors: Sharon Aviran & Sebastian Schreiber

Time: MWF 11-11:50am and (lab) F 9-10:50am



Genomic data