

Molecular Phylogenetics

Spring 2012

PCB 5616-001; ref 27075; 3 cr

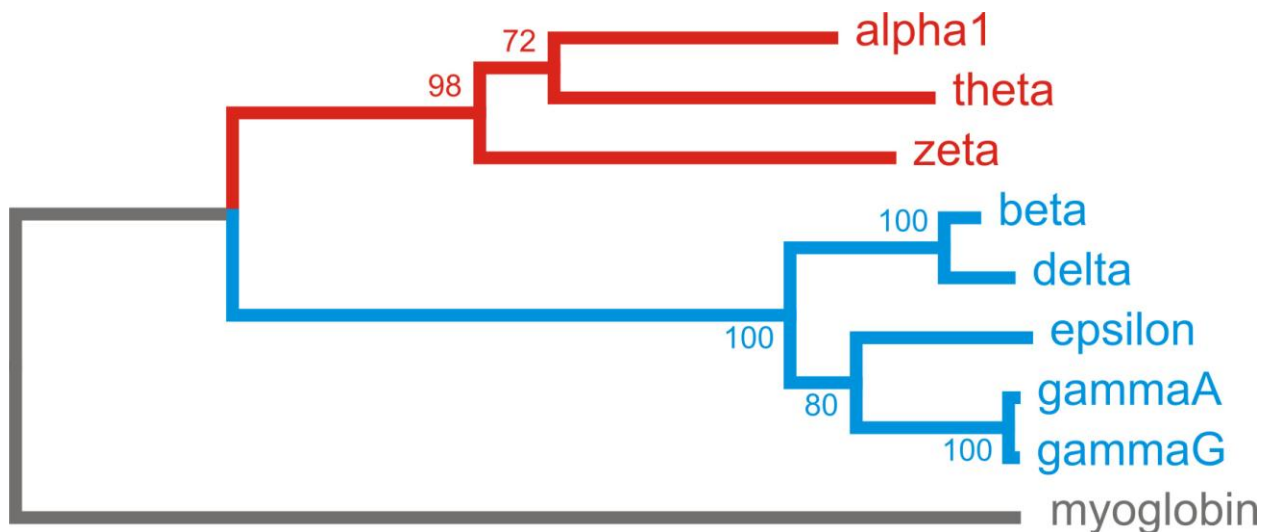
M 3:05-4:20 in ISA 3050 (lecture)

W 3:05-5:00 in SCA 222 (lab)

Dr. Garey (garey@usf.edu)

Who should take it: any undergraduate or graduate student with an interest in how genes evolve, how genes are related to each other, and how genes can be used to establish the evolutionary relationships of species. This course is applicable to the fields of *genomics*, *molecular genetics*, *systematic biology*, *biochemistry* and *medicine*.

Prerequisites: An undergraduate course in genetics with a grade of B or better.



Format: Three credits. The lecture portion will provide the theoretical framework for the computer laboratory component, where students will learn to carry out sophisticated phylogenetic analysis including: finding and retrieving sequences from the web, sequence alignment, parsimony, distance and likelihood trees. The computer lab project will be to solve a phylogenetic problem of your own choosing using sequence data available in Genbank and other databases.

Grading: Two exams, a computer lab project culminating in a paper, and the presentation of the project to the class.