

AMATH 423/523

MATHEMATICAL ANALYSIS IN BIOLOGY AND MEDICINE

The Department of Applied Mathematics is offering Amath 423/523 as a winter course in mathematical biology. I will provide an introduction to key questions and models in three of the oldest and most important branches of mathematical biology:

Theoretical Population Genetics,
Mathematical Ecology,
Mathematical Epidemiology.

If you are interested in an introductory course that gives you a broad overview of these three branches of mathematical biology, this is the course for you.

The only formal prerequisite that I will be enforcing is a first course in differential equations. You should, however, expect to apply difference equations, differential equations, dynamical systems theory, probability theory, and linear algebra to biological problems.

Winter 2024. 3/5 credits.
T, Th 10:00-11:20, Guggenheim 218
Instructor: Mark Kot, Lewis 230B
Email: mark_kot@comcast.net