

Math 4755 Mathematical Biology

Math 4755 is not taught on a regular basis and is currently inactive.

Mathematical Biology

Department: MATH

Course Number: 4755

Hours - Lecture: 3

Hours - Lab: 0

Hours - Recitation: 0

Hours - Total Credit: 3

Typical Scheduling: Every odd spring semester

Description:

Problems from the life sciences and the mathematical methods for solving them are presented. The underlying biological and mathematical principles and the interrelationships are emphasized

Prerequisites:

[Math 1502](#) or [Math 1215](#) or (Math 15X2 + [Math 1522](#))

Course Text:

No text

Topic Outline:

The biology and mathematics in this course have equal emphasis. No prior study of biology is necessary for this course, and only the first year calculus are required. The mathematics proceeds from simple concepts to more complex ones; the biology proceeds from the cellular level down to the molecular level. The course uses computer models to connect the mathematics and the biology. Topics discussed include compartmental models, diffusion models, pharmacokinetics, neurophysiology, viruses, the immune system, the biochemistry of cells and genetics. The topics emphasized depend on the interests of the class.