MATH B208:
INTRODUCTION TO MODELING & SIMULATION

COURSE DESCRIPTION

Mathematical models are constructed to describe the complex world within and around us, while computational methods are employed to visualize and solve these models. In this course, **we will focus on developing mathematical models to describe real-world phenomena**, while using computer simulations to examine prescribed and/or random behavior of various systems. The course includes an introduction to programming in R, and mathematical topics may include discrete dynamical systems, model fitting using least squares, elementary stochastic processes, and linear models (regression, optimization, linear programming). Applications to economics, biology, chemistry, and physics will be explored. Prior programming experience not required.

PREREQUISITE: Math B102 (calculus 2) or instructor permission
Contact **ejgraham@brynmawr.edu** for more information.