UBC Mathematics 360, Fall 2017
Mathematical Modeling in Science

Course Website

http://www.math.ubc.ca/∼yxli/m360/m360_17.html

Course description

Principles of model selection and basic modeling techniques in biology, earth science, chemistry and physics. Optimization, dynamical systems and stochastic processes.

Prerequisites

Integral calculus including some ordinary differential equations (e.g. MATH 101, 103, ...) [Differential calculus is an implicit prerequisite, e.g. MATH 100, 102, ...]

Instructor

Section 101: Yue-Xian Li (Office: MathAnnex 1202; Email: yxli At math.ubc.ca)

Text book

No textbook. Some reference books recommended at course website. Notes will be available online.

Topics

- Optimization and mathematical modeling
- Discrete-time dynamical systems
- Continuous-time dynamical systems
- Probability