MATH 360 (Section 101) Mathematical Modeling in Science

Session 2015W, Term 1 (Sep-Dec 2015)

http://www.math.ubc.ca/~nagata/m360/

Description:

• From the UBC Calendar: "Principles of model selection and basic modeling techniques in biology, earth science, chemistry and physics. Optimization, dynamical systems and stochastic processes. . . . "

Topic prerequisites:

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

Instructor:

• Section 101: Wayne Nagata (office: Math 112, e-mail: nagata@math.ubc.ca)

Textbook:

• No textbook

Topics:

- 1. Optimization in one variable
- 2. Continuous-time dynamical systems
- 3. Discrete-time dynamical systems
- 4. Stochastic processes