

## Biosystems Modeling 3

**Time:** Fall 2013 (Module 3)

### Description

Based on the need of Dalhousie graduate students who are willing to use modeling approach for their own research related to biosystems, three modules on special topics of modeling are designed in focusing mainly on the conception and resolution of mathematical models applied to biosystems. In this module 3, learners will deal with the basic philosophy of modeling, different angles of views of modeling aspects including GIS approach and coupling effects between models. Mathematical model used in social science will be also mentioned.

### Prerequisites

MATH 2000 or MATH2001.

**Delivery:** Each module will comprise of 3 weeks of 3 hour lectures/2 hours labs.

**Evaluation:** Assessment of this module will be in the form of weekly assignments/essays (50%) and an individual project to be submitted at the end of module (50%).

### Instructor:

**Dr. Tri Nguyen Quang**

Department of Engineering, DAC

[tri.nguyen-quang@dal.ca](mailto:tri.nguyen-quang@dal.ca)

### Content of the Module 3

Topic 11: Philosophy in Modeling and Mathematical Models.

Topic 12: GIS-based modeling: strong points and weak points .

Topic 13: Invited seminars for various modeling projects

Topic 14: Model for social aspects

Topic 15: Coupling effects between models