

Workshop: Models in Behavioral Ecology

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Learning Objectives: The goals of this course are to 1) provide an overview of the theory and practice of modeling in behavioral ecology and 2) provide hands-on experience with developing dynamic state variable models.

Topics: The course will be divided into three basic topics: 1) Introduction to modeling – rationale and approaches; 2) behavioral ecological theory, and 3) modeling approaches with a focus on dynamic state variable models.

Books We will draw from materials in Hilborn and Mangel *The Ecological Detective* and Clark and Mangel *Dynamic State Variable Models in Ecology*. You do not need to purchase these books, but they will be helpful as you begin to develop your own models.

Educational Outcomes: Students completing this course will gain a broad overview of modeling approaches in behavioral ecology and an entry point for developing their own models. Students will learn some practical approaches to using Microsoft Excel in modeling and be able to develop a basic dynamic state variable model.

Grading: Your grade will be based on 200 points which includes a 100 point modeling exercise at the conclusion of the course and course participation (100 points).

Lecture Notes: Lecture notes will be available online at <http://www.fiu.edu/~heithaus>.