

**MATH495.3: CRN 13695**  
**FEScUE Team Research (TRe) seminar**

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**Class** 12:00pm–1:00pm Thursday in Weber 223A

**Lab** 4:00pm–6:00pm Friday in Weber 223A  
Required reading: <http://www.math.colostate.edu/FAQ/primes.html>

**Office hours** 4:00pm–5:00pm Tuesday in 117 Statistics Building

**Grading Policy** Based on computer laboratories and individual contributions to the final group project

## **Syllabus**

### **Class work**

1. Modeling and sensitivity
2. Discrete probability distributions
3. Continuous probability distributions
4. Discrete time models
5. Continuous time models
6. Sensitivity Analysis
7. Elasticity Analysis
8. Online RCR training

### **MATLAB laboratories**

1. Intro to MATLAB
2. Discrete dynamical systems
3. Stochastic simulation
4. Discrete logistic equation
5. Continuous logistic equation
6. Stage structured matrix models
7. SIR
8. Sensitivity analysis
9. SENSAI

### **Group project - The LPA model for Tribolium**

1. Reading selected papers & discussion
2. MATLAB project
3. Presentation of group project

### **Tribolium laboratory**

1. Prep: March 28, Live: April 4
2. Prep: May 2, Live: May 9