Syllabus for IBS 592
Quantitative Methods in PBEE
Revised: 24 February 2010

Course Description
This course will introduce the student to fundamentals of quantitative methods and analysis of data relevant to the Population Biology Ecology and Evolution (PBEE) graduate program. This course is required for PBEE graduate students.

Course Director
Dr. Lance Waller
Office: 326 Grace C. Rollins Bldg
Phone: 404-727-1057
Email: lwaller@sph.emory.edu

Course Instructors
Dr. Karen Conneely
Office: 344 Whitehead Biomedical Research Building
Phone: 404-727-2986
Email: kconnee@emory.edu

Dr. Michael Epstein
Office: Whitehead Biomedical Research Building
Phone: 404-712-8289
Email: mpepste@emory.edu

Course Information
Course Type: Lecture
Building/Room: TBD
Meeting time: TBD
Maximum Enrollment: 20
Permission requirements: Non-PBEE graduate students need permission from instructors. This course is taught during the spring semester of even-numbered years.

Course Objectives
Through this course, students are expected gain experience using methods of modeling ecological and evolutionary problems in population biology using the R computer language. They should develop the skills necessary to independently develop and analyze population biology models.

Blackboard
There will be a Blackboard site for the class.
Student Evaluation

Student performance is evaluated through a combination of homework assignments, formal written examinations, and by the student’s participation in class discussions which will focus on a critical reading of both the text and selected primary literature. The final grade is based on the following breakdown:

- Midterm exam 25%
- Final exam 25%
- Homework 30%
- Participation 20%

Credit Hours

This is a 4 credit hour class.

Required Textbooks

The following textbook is required for the class:


Selected Primary Literature

Additional papers will be identified by the instructors.

Additional Reading

Additional reading will be identified by the instructors.

Assignments

For each topic, the reading assignments include the relevant chapters from the above books and a few key classic papers identified as conceptual or methodological breakthroughs. The homework assignments will consist of quantitative problem sets and may include application of computer programs.

Class Calendar

A detailed class calendar will be provided by the instructors.