SYRACUSE UNIVERSITY
MAT 653, STATISTICAL SIMULATION & NONSTANDARD DATA ANALYSIS
FALL 2013 SYLLABUS

Instructor: Thomas John, Ph.D.
Contact Info: Carnegie 219A, 443-1587(office), thjohn@syr.edu
Class: MoWe 8:00AM - 9:20AM Carnegie 122
Office Hours: MoWe 10:00AM - 11:00AM, and by appointment.

Text:*Simulation*, Fifth Edition, Sheldon M. Ross, ISBN: 9780124158252.

Course Description:
(per course catalogue: Simulation and Monte Carlo techniques appropriate where statistical theory does not yet provide a solution. Design and analysis of experiments under nonstandard conditions.)

The overall goal will be to introduce statistical simulation/computing topics and the associated implementation via R. We will cover chapters 3-7 and 9-10 of the text. If time allows, we will cover a few additional topics (such as Bootstrap and MCMC).

Prerequisite: MAT 525 or graduate standing in mathematical sciences.

Grading: Grades for the course will be based on the total number of points accumulated on two exams, a number of small assignments/projects, and attendance/participation. The exams will count 20% each, assignments/projects will count 40%, and the attendance/participation 20% toward your grade. The dates for the exams will be announced as the semester progresses.

Attendance: You are expected to attend every class. If you miss a class, it is your responsibility to obtain a copy of the lecture notes for that class from another student. You are also responsible for any announcements about changes to the course schedule, the exam schedule, or the course requirements that were made during that class.

Academic Integrity: The Syracuse University Academic Integrity Policy holds students accountable for the integrity of the work they submit. Students should be familiar with the Policy and know that it is their responsibility to learn about instructor and general academic expectations with regard to proper citation of sources in written work. Serious sanctions can result from academic dishonesty of any sort. For more information and the complete policy, see http://academicintegrity.syr.edu.

Learning Goals and Expectations: Students are expected to use/understand probability & statistics related mathematical notations & concepts, master the basic notions of statistical computing, select/apply appropriate computational methods for non-standard statistical problems, and acquire the skills necessary for the applications of these topics.

Disabilities: If you believe that you need accommodations for a disability, please contact the Office of Disability Services (ODS), http://disabilityservices.syr.edu, located in Room 309 of 804 University Avenue, or call (315) 443-4498 for an appointment to discuss your needs and the process for requesting accommodations.