ISyE 3232A Syllabus
Stochastic Manufacturing & Service Systems

Instructor: Robert D. Foley (rfoley@isye.gatech.edu). Please include 3232 somewhere in the subject heading when e-mailing me.

Class mailing list: We will have a mailing list for our class. I will usually distribute homework on this mailing list. The list is archived so that you can go back and see old posts if you have your gt e-address and your password. If you do not know your password, click on the button that says “unsubscribe or edit options” at the bottom of the web page:

http://www2.isye.gatech.edu/mailman/listinfo/isye3232a

and follow the instructions to have your password sent to you.

If you e-mail me a question about the course or course material that I believe is of general interest, I will usually do the following: I will remove any information that identifies the person who asked the question, and I will send my reply to the entire class.

Class Web Site: The class web site is:

http://www2.isye.gatech.edu/people/faculty/Robert_Foley/classes/3232/ie3232.html.

Brief Course Description: Manufacturing & service systems typically have random components to their behavior such as the demand for products and services. We will learn quantitative methods which are useful in analyzing, designing, and operating stochastic systems particularly manufacturing and service systems. Much of our attention will be focused on understanding, managing and reducing variability for inventory, production and service systems.

Required Course Packets: You should obtain and read a copy of The Goal: A Process of Ongoing Improvement (Second Revised Edition) by E. M. Goldratt and J. Cox, North River Press, 1992. The ideas in this book should be useful when you and the other members of your team are managing a factory for Littlefield Technologies. There will be a homework assignment related to this book.

You should buy a course packet from the bookstore to allow you to play the Littlefield Technologies games. The packet contains your individual Littlefield access code. More information about Littlefield Technologies will be discussed later in this document and will be posted on the class web site.

Optional Textbook: Applied Probability and Stochastic Processes by Richard Feldman and Cirilo Valdez-Flores. The optional textbook will be used only occasionally. In the past, some students have gotten by without purchasing the book.

Grading: The grading will be based on two tests (25% each), a final (30%), and homework, projects, and pop quizzes (20%).

Tests: Two tests will be given during the semester. The first test is scheduled for Thursday June 11 and Thursday July 9. During tests, you will not be allowed to use books, notes, or calculators.
Assignments: There will be both individual and group assignments in this course. The first individual assignment is already on the class web site and is due one week from the first class. We will assign students to teams for the group assignments. We decided it would be better to assign students to teams since this is what you will probably encounter in the workplace. There will be different teams for different assignments. Some of the assignments will involve Maple or Excel which are available in the undergraduate computer lab. Assignments will be graded by graders. On some assignments, selected problems may be graded.

TA: Judy Lee (gtg752u@mail.gatech.edu) is our Teaching Assistant.

Littlefield Technologies: Several of the team assignments will involve how well your team manages a simulated factory, which will be described in “Littlefield Technologies: Overview”.

The first Littlefield simulation will begin on Thursday, the 28th of May at 11:03 a.m. and end on Thursday, the 4th of June at 11:03 a.m. The second Littlefield simulation will begin on Thursday, the 18th of June at 11:03 a.m. and end on Thursday, the 2nd of July at 3:03 p.m. Registration for each simulation starts 48 hours before the simulation begins. Each team needs to register during these 48 hours. Once the simulation starts, no team can be registered. After each simulation, each team needs to submit a written report. The 1st report is due on Tuesday, June 16th. The 2nd report is due on Tuesday, July 14th.

Honor Code: Students are expected to abide by the Georgia Tech Honor Code.