ISyE 3770 – Probability and Statistics – Fall 2011  
(revised 10/1/11)

Professor: Dave Goldsman; Office: Groseclose 433; email: sman@gatech.edu; website: www.isye.gatech.edu/~sman/courses/3770.

Class Times and Location: MWF 8:05 – 8:55 a.m., IC 103.

Office Hours: Tθ 8:00 – 8:55 a.m. in Groseclose 433; and Tθ 3:00 – 4:00 p.m. in Clough 262. Please honor my office hours. If you can’t drop by during office hours, you can make an appointment.

Teaching Assistants:
- Norbert Remenyi; email: nremenyi@gatech.edu
- Aly Megahed; email: aly@gatech.edu
- John Powers; email: rjohnpowers@gatech.edu

TA Office Hours:
- M 12:00 – 2:00 p.m. (Aly — ISyE Main 407)
- M 2:00 – 3:00 p.m. (Norbert — ISyE Main 432)
- Tu 11:00 a.m. – 1:00 p.m. (Norbert — ISyE Main 432)
- W 4:30 – 5:30 p.m. (Aly — ISyE Main 407)
- Th 10:30 a.m. – 12:00 p.m. (John — ISyE Main 325)
- F 10:30 a.m. – 12:00 p.m. (John — ISyE Main 325)

Review Sessions: Every Thursday 5:00 – 6:00 p.m. — IC 113

email Communications: Of course, I’m always happy to interact with you, but due to the large class size, please contact the TAs first if you have any HW questions. Also, don’t send attachments with your email, unless you explicitly ask to do so beforehand.

Software: Minitab and Excel.

Course Objectives: Provide an introduction to probability and statistics, emphasizing applications in science and engineering.

Prerequisites: You should also know enough calculus to be able to integrate any easy function.

Grading:

?? HW + Attendance + Quizzes
1/4 Test #1 Monday, Sept. 26
1/4 Test #2 Monday, Oct. 24
1/4 Test #3 Monday, Nov. 21
1/4 Final Exam Friday, Dec. 16, 8:00 – 9:30 a.m. (Period 13)

Note: If you have a legal conflict with the Final’s time slot (which I doubt, since it’s in the first time slot of its day), you can take a make-up on Saturday, Dec. 17.

Class Attendance: I know this class is early, and I know that I’ve thoughtfully provided beautiful notes on the web that might make it tempting not to show up, but please do not skip class. I guarantee that I will do stuff on the board that’s not in the notes, and you will be responsible for that material. I’ll also occasionally take attendance, give quizzes, etc.

Tests:

- Most test questions will be multiple choice or short answers. Partial credit will be scarce, so you will have to do your utmost to avoid careless errors.
- You can bring in $i$ cheat sheets to Test $i$, $i = 1, 2, 3, 4$. You can use both sides. You can bring in a calculator.
- Never, ever cheat. In fact, now would be a good time to take a look at the GT Honor Code at www.honor.code.edu. While you’re at it, you can also see the Student-Faculty expectation document at www.sga.gatech.edu/expectations.
- For your protection, we xerox all tests.
- Look on the front page of the test to see how much time you are allowed.
- If you miss a test, you will need to produce appropriate documentation justifying your absence. Your grade in the course will then be based on the remaining three tests (+ HW).
• I will not exempt anyone from the Final. You have plenty of time starting now to schedule interviews and trips. If this is going to be a problem for you, then hurry up and drop the course. Hurry! Quick!

• No make-up exams! None. Zero. Goose egg. Nada. Zip. Zilch. If your schedule doesn’t permit you to take one of the tests, hurry up and drop the course. Hurry! Quick! Now!

• We provide a great deal of study material on the website, including old tests. However, we are not responsible for mistakes in any old answer keys. If you have any doubts about something, ask the TAs first, then me if you don’t get the information you need.

Homework: I assign HW every week. You may work in groups of 2 or 3 to save trees, but you are strongly encouraged to know how to do all of the problems yourself! HW must be neat, organized, stapled, and handed in on time. Never turn in more than 2 pages per problem. For questions concerning the HW, email or see the TAs first.

Whining: Although I’m a generous grader and a nice guy, you should never beg for a better grade by saying things like

• “I really need an A else I’ll lose my scholarship!”

• “Mom will be super duper angry if I don’t get an A!”

• “My dog ate my in-class final!”

The bottom line is that if you are counting on receiving an A and assuming with 100% certainty that you will receive an A, and have already told your parents that you are going to receive an A in this class, then it’s not fair to give me a guilt trip if you don’t actually receive an A.

Regrading: If we have made a mistake in grading something, we will be happy to correct it. In order to receive a re-grade, you must submit a Grade Grovelling Form within 24 hours of my handing back the test. The form is available at

www.isye.gatech.edu/~sman/courses/gradegrovel.pdf.

If a test is submitted for regrading, we have the right to regrade the entire test — so it is possible to lose additional points. Therefore, it is strongly recommended that you do not ask for regrading unless you have substantial reason to believe that I made a mistake when originally grading the test. Also, please do not demean yourself by
begging for single points.

**Class Electronics Policy:** If your cell phone rings during class, a very bad thing will happen to you. You can bring in your computer (or other related devices), but only use it to do class stuff.

**Course Outline:**

1. Probability Intro
2. Random Variables
3. Discrete Distributions
4. Continuous Distributions
5. Normal Distribution
6. Descriptive Statistics
7. Point Estimation
8. Confidence Intervals
9. Hypothesis Testing
10. Discrete Data Analysis
11. Analysis of Variance
12. Simple Linear Regression
13. Multiple Linear Regression
14. Experimental Design