

MSIT 7050

Applied Business Statistics

Summer 2008: June 10-July 3
Tuesday & Thursday 12:30 – 3:43 pm

Professor: Katherine McClain, Ph.D. in Economics, University of California, San Diego
Teaching Experience: Wellesley College, Penn State, UGA
Expertise: Time Series Analysis, Econometrics, Environmental Economics

Contact Info: kmclain@terry.uga.edu
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Textbook: Groebner, Shannon, Fry and Smith, Business Statistics: A Decision Making Approach, 7th Edition, Prentice Hall Publishers.

- **If you purchase a used book, make sure it has the data disk with it! You will need it!**

Tufte, Edward R. The Cognitive Style of PowerPoint. Graphics Press: 2004.
Hubbard, Elbert. How I Carried a Message to Garcia, which can be found at <http://wwwFOUNDATIONSmag.com/garcia.html>
In-Class Examples I, II, and III. Available on our class WebCT site. Bring to all classes.

Course Grade:

Homework and Cases	85%
Final Case	15%

Each day several problems and a case study will be due. Late homeworks will not be accepted; no extra credit will be available. Do quality work the first time around. All homeworks and cases should be completed **individually**.

Honor Code: The Honor Code is taken very seriously in this class. If you have a question concerning what is appropriate, see the University guidelines or ask your professor. Follow appropriate citation guidelines when needed. In general, ***you are expected to behave such that your academic integrity is beyond question***. I can't stress this enough. I have followed through on charges in the past.

Classroom Etiquette: Sometimes the basics bear repeating:

- Attend class – all of them.
- Turn off cellphones when you get to class.
- Arrive at class early so you can get your stuff out without disturbing others.
- **No laptops in class.** You can't take mathematical notes on them fast enough to make a difference, anyways.

WebCT: I will make announcements on WebCT and you can download class examples from WebCT. To access the WebCT account, go to <http://webct.uga.edu>. Enter your UGA MyID and password. Click on MSIT 7050.

- For technical assistance with WebCT, see <https://webct.uga.edu/www/student/guide/>
- Contact me if you suspect a problem with the WebCT site itself (e.g. malfunctioning link).

SCHEDULE AND ASSIGNMENTS

<i>DATE</i>	<i>TOPICS</i>	<i>TEXTBOOK</i>	<i>PROBLEMS DUE TODAY</i>	<i>CASE DUE TODAY</i>
<i>Tuesday</i> June 10	Visualization of Data Lying with Statistics			
Thursday June 12	Probability Distributions Binomial Distribution Normal Distribution	Chapter 4 Chapter 5, sect. 1&2 Chapter 6, sect. 1	Read Tufte and Hubbard articles	2.3 & 3.3 2 pages <i>10 points</i>
<i>Tuesday</i> June 17	Sampling Distributions Central Limit Theorem	Chapter 7	5.12, 5.14, 5.24, 5.26, 5.34, 6.4, 6.6, 6.18 <i>8 points</i>	5.2 1 page <i>8 points</i>
Thursday June 19	Point Estimates Confidence Intervals Determining Sample Size	Chapter 8	7.24, 7.34, 7.36, 7.45, 7.48, 7.58 <i>6 points</i>	Mercy Medical 1 page <i>8 points</i>
<i>Tuesday</i> June 24	Hypothesis Testing	Chapter 9	8.2, 8.6, 8.18, 8.32, 8.35, 8.54 <i>6 points</i>	Duro Bricks 1 page <i>8 points</i>
Thursday June 26	Introduction to Regression Analysis	Chapter 14	9.2, 9.4, 9.8, 9.10, 9.11, 9.12, 9.14, 9.30 <i>8 points</i>	9.2 1 page <i>8 points</i>
<i>Tuesday</i> July 1	Multiple Regression	Chapter 15	14.4, 14.16, 14.26, 14.42 <i>4 points</i>	Problem 15-11 2 pages <i>8 points</i>
<i>Thursday</i> July 3	Catch-up		15.2, 15.3, 15.48 <i>3 points</i>	Final Case Due 3 pages <i>15 pts</i>

Case Studies

- When you are writing your case studies, remember that your boss has given you this assignment. Your audience is him or her, your unit or group within the company, or a client. None of these people know as much statistics as you do. They may not know any statistics at all. They are relying on your expertise to solve the problem.
- Case studies should be no more than one or two pages in length (check the assignment). Yes, this is short, but you will lose most people's attention after about two pages. You need to be specific and direct, sticking to the most relevant information.
- Your report should start with a brief statement of the problem, what type of data is available and where the data came from.
- You must next establish your credibility and describe the method that you will use to solve the problem. Why did you choose that method? Is it a typical approach to problems of this kind, or are you breaking new ground? Give a brief statistics lesson. Your audience needs to know that you did not pull your results from a hat or use a dartboard, but instead relied on recognized statistical techniques.
- Present your results, using your chosen method and their data. Use graphs, etc. as appropriate.
- Make recommendations or conclusions. This is, after all, what they are paying you for.

Grading Scale:

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| 96 | Stands out very significantly from the others. |
| 93 | Very good. Results and method are correct, report is above average, with one or more extras (perhaps intangible) that caught my eye. |
| 90 | Good. Your results are correct, the method is correct, the report is solid, but something extra (perhaps intangible) caught my eye. |
| 87 | Satisfactory. Your results are correct, the method is correct, the report is solid, you did what was asked. <i>An 87 is the most common grade I assign – but that could change under an onslaught of overwhelming quality!</i> |
| 84 | Satisfactory but with minor glitches or poorly phrased explanations. |
| 81 | Something went wrong: e.g. results are wrong, inappropriate choice of method, very poor writing, missing section of report. |
| 78 | Big whoops |