STAT 519/J519 Spring 2008
Live class (STAT 519): MW 4:00-5:15
Recorded class (STATJ519): go to http://video.sc.edu/

Description: *Sampling* (3) (Prereq: STAT 515 or equivalent) Techniques of statistical sampling in finite populations with applications in the analysis of sample survey data. Topics include simple random sampling for means and proportions, stratified sampling, cluster sampling, ratio estimates and two-stage sampling

Instructor: J. Lynch, 204A LeConte, 803-777-7800 (fax 803-777-4048), lynch@stat.sc.edu

Office Hours (TBD): ?????? If you cannot come at these hours, give me a call or e-mail me and I will be happy to arrange a different time with you.

Textbook: Elementary Survey Sampling: (Sixth Edition) by Schaeffer, Mendenhall and Ott, Duxbury

The material tentatively scheduled to be covered is from chapters 1-8 and selected topics from 10 and 11 as time permits. Your grade in the course will be determined as follows:

Test 1	Feb 20	26.7%
Test 2	April 2	26.7%
Final	May 7, 2 pm	26.7%
Project		10%
Homework		10%

A: 93-100%	B+: 88-92%	B: 83-87%	C+: 78-82%
C: 70-77%	D+: 66-69%	D: 61-65%	F: $\leq$ 60%

Course Web Page: We will be using dostat for the course homepage, mainly to post lecture materials and assignments. Go to http://dostat.com and register as a student. The course number is DS-595.

Streamed Lectures: For students registered for J519, the live lectures will be recorded with voice and video. These will be posted as streaming video files which can be viewed at http://video.sc.edu/, usually within 24 hours of the live class. Click on Arts and Sciences and then click on the lecture / lesson you want. You will be prompted for an ID and password, which I will provide you. I suggest you have the Powerpoint slides (e.g. 3-on-a-page notes), text materials and any other handouts you need in front of you when you are viewing.

Software: We will be working with the software package *Minitab*$^{\circledR}$. On-campus students have ample access to these through the Department and College computing facilities. For those of you who will work on other PCs, Minitab is available for rent for six months for about $30. Go to http://www.e-academy.com, click on "eStore" and look for Minitab 15. For those who have never used it, a Minitab quickstart handout can be found online at http://www.stat.sc.edu/news/handouts/mtbwin.html. It might be made for an earlier version, instead of the current 15 but it should provide a reasonable overview of getting started in Minitab.

Homework: Homework will be assigned regularly, some of which will be graded. All homework assignments will be due as indicated in class. STAT 519 students must submit these on paper. Distance students taking STAT J519 may submit them as a Word for Windows or pdf email attachment, or by fax. **NO LATE HOMEWORK WILL BE ACCEPTED** except for documented illness, deaths in the family, etc. Do not turn in assignments in several pieces or as more than one attachment to an email. Please use an informative header on every email you send to me (e.g. "STAT J519 hw 1 lastname).

Exams: For STAT 519 students and for STAT J519 students within the Columbia area the tests will be BA 203 at the posted dates and times. Arrangements will be made the distance education testing coordinator to have the test proctored at a distance education site.

Honor Code: See the *Carolina Community* and the *Carolina Creed.*

Statistics 519/J519
Spring 2008
Schedule of Topics

Note: this schedule of topics is very ambitious, and may require adjustment as we go.

Class	Reading	Planned Topics
1	Posted Websites, Chapters 1-3	Syllabus; Intro; Historical Perspective
2	Posted Websites, Chapters 1-3	Historical Perspective
3	Posted Websites, Chapters 1-3	Historical Perspective
4	Posted Handouts, HO#1	RV's
5	HO#2	Counting, Binomial and Hypergeometric
6		Counting, Binomial and Hypergeometric
7	HO#3, Chapter 4	Population and Sample concepts
8		Determining n and the Bound on the Estimation Error
9		Bound on the Estimation Error
10		An in-depth example illustrated for a small population, Review
11	Test 1 (Feb 20)	
12	HO#4, HO#5	An analysis of HO#4 to illustrate formulas and concepts
13	HO#5	Finish HO #5
14	Chapter 5	Stratification and Estimation
15	Chapter 5	Selecting the Sample Size
16	Chapter 5	Allocation of the sample to the strata, Choosing Strata
17	Chapter 5	An in-depth example illustrated for a small population
18	Chapter 5	Poststratification and Double Sampling
19	Chapter 6	Ratio, Regression and Difference Estimation
20	Chapter 6	Ratio, Regression and Difference Estimation, Review
21	Test 2 (April 2)	
22	Chapter 6	Ratio, Regression and Difference Estimation
23	Chapter 6	Ratio, Regression and Difference Estimation
24	Chapter 6	Ratio, Regression and Difference Estimation
25	Chapter 8	Cluster Sampling
26	Chapter 8	Cluster Sampling
27	Chapter 8/Chapter10	Cluster Sampling/Estimating the Population Size
28	Chapter 10	Estimating the Population Size
28	Chapter 10, Chapter 7	Estimating the Population Size, Systematic Sampling, Review
?	Final Exam	Date and Time TBD