

<b>Class Meets: Tuesday &amp; Thursday from 9:00 to 10:30 AM in 0241 Himes Hall</b>		
<b>Professor: JAMES P. GEAGHAN</b>		
<b>Office</b>	149 Agriculture Administration Building	
<b>Office hours</b>	Thursday lab section 4 (12:30 - 2:30), or call for appointment anytime	
<b>Telephone</b>	(225) 578 - 8303	
<b>Internet materials</b>	<a href="http://www.stat.lsu.edu/faculty/geaghan/jpghome.html">http://www.stat.lsu.edu/faculty/geaghan/jpghome.html</a>	
<b>Labs are held in Room 11, Ag Admin Bldg.</b>		
<b>Lab Instructor</b>	TBA	
<b>Office</b>	Agriculture Administration Building	
<b>Office hours</b>	Scheduled by Lab Instructor	
<b>Lab Times</b>	Thursday (1) 10:30-12:20, (4) 12:30-2:20 and (2) 2:30-4:20, (3) Friday 10:30-12:20	
<b>Grading Points:</b>	3 exams @ 100 points each	300
	1 final @ 150 points	150
	Quizzes: 2 Lab practicum @ 25 points each	50
	Quizzes: Daily quizzes on random dates @ 50 points total	50
	Weekly lab assignments scaled to 100 percentage points	100
	<b>TOTAL</b>	<b>650</b>
<b>Exam Schedule:</b>		
<b>First Exam</b>	Thursday, September 27, 2012 – Exam 1	
<b>Second Exam</b>	Thursday, October 25, 2012 – Exam 2	
<b>Third Exam</b>	Thursday, November 15, 2012 – Exam 3	
<b>Final Exam</b>	Thursday, December 6, 2012 from 7:30 AM – 9:30	
<b>Course Grading:</b>	$\text{Score} = \frac{(\text{Exam1} + \text{Exam2} + \text{Exam3} + \text{Lab}\% + 0.5 * \text{Quiz}\% + 0.5 * \text{Practicum}\% + \text{Final})}{6.50}$	
<b>Letter grade</b>	Guaranteed minimum letter grade assignment	
	90 - 100 points, minimum grade of	A
	80 - 89.9 points	B
	70 - 79.9 points	C
	60 - 69.9 points	D

**Course objective:** The objective of the course is to help you to learn the statistical techniques that researchers use to organize, analyze and interpret the results of their investigations. You will learn to conduct analyses in a software package called SAS and will demonstrate your ability to use SAS with weekly homework assignments and lab practicums.

**TEXT:** (recommended, not required): Freund, Rudolph J., William J. Wilson and Donna L. Mohr. 2010. Statistical Methods, Academic Press (ELSIIVIER), N.Y. Older editions are very similar: Freund, Rudolph J. and William J. Wilson. 2003. Statistical Methods, Academic Press, N.Y. (revised edition (1997) acceptable, 1993 edition unadvisable)

## Course outline

Reference Text: Freund and Wilson		Page numbers		
		1997	2003	2010
Topic				
I Introduction		Chapt 1	Chapt 1	Chapter 1
	Course Objectives		-	
	Definitions		-	
II Location and Dispersion		19	19	19
III Coefficient of Variation & Other measures		28	28	29
IV Exploratory Analysis Plots		32	32	32
V Probability & Sampling Distributions		62	62	67
	Discrete Distributions	76	76	79
	Continuous Distributions	81	81	86
	Normal Distribution and Z tables	83	83	89
	Distribution of Sample Means	91	91	98
	The Chi Square Distribution	101	102	109, 641
	The t distribution	104	105	111
	The F distribution	106	106	113
VI Tests of Hypothesis		117	117	125
	Testing Hypotheses of Means	159	161	127
	Testing Hypotheses of Variance	169	169	181
	Equality of 2 Population Means	185	185	201
VII Analysis of Variance (ANOVA)		219	219	245
VIII Post-ANOVA Techniques		242	242	269
IX ANOVA (unequal sample size)		270	270	300
	Factorial Treatment Arrangements	417	417	473
	Randomized Block Design	464	464	524
X Regression and Correlation		287	287	321
XI Multiple-Regression		333	333	375

**Catalog Course Description:** *EXST7005 Basic concepts of statistical models and use of samples; measures of variation and central tendency; normal, t, chi-square, and F distributions; tests of hypothesis, analysis of variance, regression, and correlation; emphasis on field oriented life science research problems.*

### EXST7005: Course notes contents

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**The fine print:**

Class attendance is expected. If you miss a class you are responsible for all of the material covered and any announcements made in class.

Make-up exams will not be given except under documented circumstances. There will be no make-up for quizzes.

Cell phones must be turned off or put on vibrate during class. **Cell phones must be turned off and concealed during exams.**

**Cheating and Plagiarism:** see the “Code of Student Conduct” under “Academic Misconduct” linked to the web page of the LSU Office of the Dean of Students page.