

STA 6167  
Course Information  
Summer B 2009

Instructor: Ramon C. Littell  
Office: 430 McCarty C  
Telephone: 392-2545  
e-mail: [littell@ufl.edu](mailto:littell@ufl.edu)  
Office Hours: MW, 11:00 -12:00

Grad. TA: Shibasish Dasgupta  
Office: 115A Griffin-Floyd  
e-mail: [dasgupta@stat.ufl.edu](mailto:dasgupta@stat.ufl.edu)  
Office Hours: TF, 11:00-12:00

Class Time: MTWRF, Period 2 (9:30-10:45)

Class Room: Griffin-Floyd 100

Text: No required text. Notes can be downloaded.

Topics: Regression analysis. Design and analysis of experiments (factorial, nested, and split-plot). Repeated measures data. Analysis of categorical data.

Objectives: To prepare students with statistical skills needed to plan research projects.  
To prepare students with statistical skills needed to analyze research data.

Grading Policy: A total of 400 points will be possible from three in-class exams (100 points each) and five homework assignments (20 points each). Letter grades will be determined as follows:

A:	360-400	(90%-100%)
B:	320-359	(80%-89%)
C:	280-319	(70%-79%)
D:	240-279	(60%-69%)

### Schedule of Topics

Date	Topic
	<b>Regression Analysis</b>
Jun 29	Simple Linear Regression—Review
Jun 30	Multiple Linear Regression—example and concepts: fitting the regression equation
Jul 1	Multiple Linear Regression —analysis of variance and statistical inference about regression parameters
Jul 2	Multiple Linear Regression—collinear independent variables
Jul 3	Independence Day Holiday—no class
Jul 6	Polynomial Regression—an application of multiple regression
Jul 7	Multiple Linear Regression—model selection and goodness of fit
Jul 8	Regression models with qualitative independent variables
Jul 9	Review of Basic Design of Experiments—CRD and RCBD
Jul 10	<b>Exam #1</b> —Regression Analysis
	<b>Design and Analysis of Experiments</b>
Jul 13	Randomized Blocks Designs with Replication in Blocks
Jul 14	Factorial Experiments—example and concepts: main effect and interactions
Jul 15	Factorial Experiments— comparisons of means
Jul 16	Factorial Experiments— quantitative and qualitative factors
Jul 17	Analysis of Covariance
Jul 20	Nested Classifications—example and concepts: multiple sizes of sampling units
Jul 21	Nested Classifications—data analysis
	<b>Mixed Models</b>
Jul 22	Mixed models—example and concepts: fixed and random effects
Jul 23	Mixed models—data analysis
Jul 24	<b>Exam #2</b> —Factorial experiments and nested classifications
Jul 27	Split Plot Design—example and concepts: different sizes of experimental units
Jul 28	Split Plot Design—data analysis
Jul 29	Latin Squares and crossover designs
	<b>Other Topics</b>
Jul 30	Analysis of Unbalanced Data—adjusting effects for other factors
Jul 31	Analysis of Unbalanced Data—mixed models
Aug 3	Repeated Measures—examples and concepts: data in sequence
Aug 4	Repeated Measures—methods of analysis
Aug 5	Logistic Regression
Aug 6	Generalized Linear Models
Aug 7	<b>Exam #3</b> —Comprehensive