

STA 6167 – Statistical Methods in Research II

Summer B 2013

Section 4331: MTWRF 2nd period (9:30am-10:45am) in FLO 100

Instructor:

Demetris Athienitis (athienit@ufl.edu)

Office: Griffin Floyd 116B,

Phone: 352 – 273 – 2972

Office Hours: Office Hours subject to change and will be posted on the course website

Course Web Address: <http://www.stat.ufl.edu/~dathien/sta6167.html> and Sakai/E-learning for posted grades

Course Description:

Train graduate students in advanced statistical tools associated with linear models, with emphasis in design and analysis of experiments. The aim is to promote sound scientific research and experimentation based on good statistical thinking and practice.

This class assumes that you have done STA6166 or an equivalent class, where you covered most of the basic statistical topics (z-test, t-test, F-test, chi-square test, ANOVA, basic experimental designs and linear regression). The course will assume that those topics are well known. In addition, we assume that you are self motivated and an independent student/researcher that will be designing and analyzing statistically experiments.

Course Materials Required:

1) *Applied Statistical Methods* by Dr. Larry Winner. The book as well as exercises and supplemental material are provided at <http://www.stat.ufl.edu/~winner/statnotescomp.html>

2) Calculator capable of calculating means and standard deviations

Software:

You will need a computer for the homework assignments. The main software used in class will be R (<http://www.r-project.org/>) although you can use SAS and examples are provided on the textbook site.

Homework and Quizzes:

There will be homework problems throughout the week. These will not be collected. However, one or more of these questions (or a slight alteration of them) will be a quiz question. There will be one/two **10 minute quiz once a week**, based on the assigned homework questions. The lowest quiz grade will be dropped.

Exams: There will be three in-class exams, given on the dates listed below.

Exam 1: July 17th

Exam 2: July 29th

Exam 3: August 9th

Each exam is composed of multiple choice questions (approximately 75%) and some open-ended questions.

If a student is unable to take an exam at the scheduled time, they must notify the instructor as early as possible. If an emergency situation precludes an advance arrangement, you should let the instructor know within 24 hours of the missed exam. Each case will be reviewed individually. You will be required to provide official documentation to be eligible for make-up examination.

Grades:

Each exam is worth 25% the final grade and the quizzes the additional 25%.

Note: Lowest exam's weight of final grade may be reduced.

Grading Scale:

The grading scale will be as follows:

A:	92-100%,	A-:	88- <92%,		
B+:	84- <88%,	B:	80- <84%,	B-:	77- <80%,
C+:	74- <77%,	C:	70- <74%,	C-:	67- <70%,
D+:	64- <67%,	D:	56- <64%,		
E:	< 55%.				

To see the effect of the + and – grades on your GPA, look at the following link:

<http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html>.

Course Policies:

Academic Dishonesty: I adhere to the University of Florida rules and guidelines for handling instances of academic dishonesty. Please refer to the Office of Students Services for detailed information about the current policies.

Instructor's Honor Code: We the members of the University of Florida community pledge to hold ourselves and our peers to the highest standards of honesty and integrity.

Grading: Grades will be changed only when an error has been made by the instructor.

Incomplete: Incompletes are only assigned when extraordinary circumstances, arising after the date for dropping off the course, prevent the student from completing the course requirements. The student must be currently passing the course and discuss the circumstances with the instructor before the final exam takes place. Having a failing grade in the course is not a valid reason for requesting an incomplete.

Getting Help: Students may ask questions during the lectures (preferred) or the office hours. The TAs will answer questions during office hours. A list of private tutors (if needed) may be obtained from the Statistics Department Secretary in Griffin Floyd 103.

Students with disabilities: Students requesting classroom accommodation must first register with the Dean of Students office. The Dean of Students will provide documentation to the students who must then provide this documentation to the Instructor when requesting information.

Privacy Policies: Student records are confidential. Only information designated “UF directory information” may be released without your written consent. UF views each student as the primary contact for all communication. If your parents contact me about your grade, attendance or other information that is not “UF directory information”. I will ask them to contact you.

Tentative schedule:

	Subjects	Sections
	Review of Regression	7
	Multiple Linear Regression	7.4
	Analysis of Covariance	7.4
	Checking Assumptions	
	Exam - 1	
	CRD and RBD Designs	6.1-6.2
	Latin Squares Design	6.3
	Factorial Designs (Fixed, Mixed, Random Effects)	6.3
	Nested Designs	6.3
	Split-Plot Designs	6.3
	Repeated Measures Designs	6.3
	Exam – 2	
	Logistic Regression	8.1
	Poisson Regression	8.2
	Nonlinear Regression	8.3
	Intro to Survival Analysis	9
	Exam - 3	

The instructor reserves the right to update any parts of this syllabus as necessary. Students will be notified of any changes.

Note: There will be no classes on the following days

July 4th Independence Day