

University of Florida

**GMS 6862: Applied Biostatistics II
Spring 2013**

GENERAL INFORMATION

Location: TBD
Time: TBD-tentatively Tuesdays 9:35am-12:05pm
Instructor: John A. Kairalla, Ph.D.
439 Dauer Hall
johnkair@ufl.edu
Tel: (352)294-1931

Office Hours: TBD or by appointment

COURSE DESCRIPTION

This course includes introduction and application of common statistical analysis methods and widely used experimental design techniques including multiple regression, ANOVA, study design, power, contingency tables, logistic regression, survival analysis, longitudinal data analysis and principles of clinical trials. The use of the SPSS computer package will be emphasized in order to provide ample opportunity for hands-on experience with data analysis.

OBJECTIVES

Upon completing the course, students are expected to

1. understand common statistical methods used in their own research and in evaluating the work of others.
2. be able to choose and conduct appropriate design and analyses for their own research.

PREREQUISITE

GMS 6861 - Applied Biostatistics I

GRADING

There will be five biweekly homework assignments (75%), and one final project (25%). The following grading system will be use: A (90 or higher), B+ (86-89), B (80-85), C+ (76-79), C (70-75), D+ (66-69), D (60-65), and F (<59).

CLASS ATTENANCE

Class attendance is mandatory. Excused absences follow the criteria of the UFL Graduate Catalogue (e.g., illness, serious family emergency, military obligations, religious holidays), and should be communicated to the instructor prior to the missed class day when possible. Missing more than three scheduled sessions will result in a failure.

Regardless of attendance, students are responsible for meeting the scheduled due dates for class assignments.

STUDENTS WITH DISABILITIES

Students requiring accommodations must first register with the Dean of Students' Office. The Dean of Students' Office will provide documentation to the student who must then provide this documentation to the faculty member when requesting accommodation. The College is committed to providing reasonable accommodations to assist students in their coursework.

ACADEMIC INTEGRITY

Each student is bound by the academic honesty guidelines of the University and the student conduct code printed in the Student Guide and on the University website. The Honor Code states: "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity." Cheating or plagiarism in any form is unacceptable and inexcusable behavior.

TEXTBOOK

Statistics in Medicine, Third Edition. Robert H. Riffenburgh. Academic Press. 2012.
(Required)

Access to statistical software is required: SPSS will be emphasized due to ease of use. Options for obtaining the software will be discussed in first class.

TENTATIVE SCHEDULE

Week	Date	Topics	Homework
1	Jan 8	Introduction and review	
2	Jan 15	Research design and software (SPSS)	#1
3	Jan 22	Correlation and simple linear regression	
4	Jan 29	Analysis of variance	#2
5	Feb 5	Multiple regression	
6	Feb 12	Regression diagnosis and remedy	#3
7	Feb 19	Analysis of contingency tables	
8	Feb 26	Logistic regression	#4
9	Mar 5	Spring Break-No Class	
10	Mar 12	Survival analysis	#5
11	Mar 19	Principles of clinical trials	
12	Mar 26	Longitudinal data analysis (Guest)	
13	Apr 2	Overview of multivariate methods	
14	Apr 9	Power/sample size, writing statistical report	
15	Apr 16	Special Topic/Help Session	
16	April 23	Final presentations	