

GMS 5905: Applied Biostatistics II Spring 2009

GENERAL INFORMATION

Location: 1329 Building, R5250
Time: Wed 2:00-5:00pm (Periods 7-9)
Instructors: Yueh-Yun Chi, Ph.D.
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John A. Kairalla, Ph.D.
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Office Hours: Thursday 3:00-5:00pm 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, poisson regression, survival analysis, and longitudinal data analysis. 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 5905 - Applied Biostatistics I

GRADING

There will be three homework assignments (15%), three midterm exams (75%), and one final project (10%). 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

Practical Statistics for Medical Research. Douglas Altman. Chapman & Hall/CRC. 1990.

Handbook of Univariate and Multivariate Data Analysis and Interpretation with SPSS. Robert Ho. Chapman & Hall/CRC. 2006. (Optional)

SCHEDULE

Week	Date	Lecturer	Topics
1	Jan 7	Chi	Introduction and review
2	Jan 14	Kairalla	Study design, introduction to software/SPSS
3	Jan 21	Kairalla	Multiple regression
4	Jan 28	Kairalla	Multiple regression
5	Feb 4	Kairalla	Multiple regression, ANOVA
6	Feb 11	Kairalla	ANOVA, power analysis, midterm I
7	Feb 18	Chi	Analysis of contingency tables
8	Feb 25	Chi	Analysis of contingency tables, reliability
9	Mar 4	Chi	Logistic regression
10	Mar 11		Spring break
11	Mar 18	Chi	Logistic regression, midterm II
12	Mar 25	Chi	Poisson regression, survival analysis
13	Apr 1	Chi	Survival analysis
14	Apr 8	Chi	Longitudinal data analysis
15	Apr 15	Chi	Longitudinal data analysis, midterm III
16	Apr 22	Chi	Final presentations (other biostatistical courses, case study)