CourseNo: PLANA6930_001_2013_3

Meeting Location: AVERY HALL 412

Meeting Time: R 11:00A-01:00P

Instructor Information: Lance M. Freeman

Class Time: Thursdays 11:00-1:00 p.m.

Class Room: 412 Avery

Lab time: Thursday 2:00-4:00 p.m.

Lab room: 200 Fayerweather

Office Hours: Mondays 2:00-4:00 p.m. or by appointment **Office:** 413b Avery **Phone:** 212-854-8495 **E-mail:** lf182@columbia.edu; Yunjing Li, yl2510@columbia.edu

Course website: http://courseworks.columbia.edu (Log in and this course should be displayed on the screen).

Course Objectives

The purpose of this class is to introduce students to the concepts, techniques and reasoning skills necessary to understand and undertake quantitative research. By the end of the semester students will be able to:

- Design a quantitative research proposal
- Conceptualize a quantitative statistical model
- Estimate a quantitative statistical model
- Interpret the results of descriptive analyses, t-tests, chi-square and multivariate regression analyses.

Students will learn and hone their skills through a combination of attending weekly class meetings, participating in weekly labs, completing written assignments and writing a research paper that tests a hypothesis using quantitative techniques.

Grading

Homework: 60% Midterm: 20% Final Paper: 20%

Note: Homework assignments are due 11:00 a.m. on the day of class. All assignments must be uploaded to Courseworks. Late assignments will not be accepted.

Class 1

Thu Sep 05, 2013 11:00 AM - 01:00 PM

Topic:

Conceptualizing quantitative research

Readings:

Applied Statistics Chapter 3

Stata Readings:

Jane Weintrop Guest lecture

Assignment 1 Due

Class 2

Thu Sep 12, 2013 11:00 AM - 01:00 PM

Topic:

Probability

Readings:

Applied Statistics Chapters 7 and 8

Stata Readings:

Chapter 8 pp. 183-196

Class 3

Thu Sep 19, 2013 11:00 AM - 01:00 PM

Topic:

Inference

Readings:

Applied Statistics Chapters 9 and 11

Assignment 2 Due

Class 4

Thu Sep 26, 2013 11:00 AM - 01:00 PM

Topic:

Inference continued

Readings:

Applied Statistics Chapters 12 and 13

Stata Readings:

pp.147-168

Assignment 3 Due

Class 5

Thu Oct 03, 2013 11:00 AM - 01:00 PM

Topic:

Inference continued

Readings:

Applied Statistics Chapter 14

Stata Readings:

pp.147-168

Assignment 4 Due

Class 6

Thu Oct 10, 2013 11:00 AM - 01:00 PM

Topic:

Analysis of Frequency Tables

Readings:

Applied Statistics Chapters 15 and 16

Stata Readings:

pp. 123-133

Assignment 5 Due

Class 7 Midterm

Thu Oct 17, 2013 11:00 AM - 01:00 PM

In-class Midterm

Class 8

Thu Oct 24, 2013 11:00 AM - 01:00 PM

Topic:

Introduction to Regression: Bivariate Regression

Readings:

Applied Statistics Chapter 18

Assignment 6 Due

Class 9

Thu Oct 31, 2013 11:00 AM - 01:00 PM

Topic:

Regression: Multiple Regression

Readings:

Applied Statistics Chapter 21

Stata Readings:

pp. 249-257

Assignment 7 Due

Class 10

Thu Nov 07, 2013 11:00 AM - 01:00 PM

Topic:

Regression: Multiple Regression

Readings:

Multiple Regression in Practice Chapters 1-4

Stata Readings:

pp. 260-264, 268-269

Research Proposal Due

Class 11

Thu Nov 14, 2013 11:00 AM - 01:00 PM

Topic:

Regression: Multiple Regression

Readings:

Multiple Regression in Practice Chapters 5 and 6

Stata Readings:

pp. 260-264

Assignment 8 Due

Class 12

Thu Nov 21, 2013 11:00 AM - 01:00 PM

Topic:

Regression: Multiple Regression extensions

Readings:

Applied Logistic Regression Analysis Chapters 1 and 2

Stata Readings:

pp. 297-317

Assignment 9 Due

Class 13

Thu Dec 05, 2013 11:00 AM - 01:00 PM

Topic:

Regression: Multiple Regression extensions

Readings:

Applied Logistic Regression Analysis Chapter 3

Stata Readings:

pp. 297-317

Assignment 10 Due

Final Paper Due

Tue Dec 17, 2013 12:00 AM - 11:00 PM

No class