20:834:561 APPLIED STATISTICS
FALL 2015

INSTRUCTOR
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COURSE OBJECTIVES

Among the skills public managers should have in order to produce, understand and make decisions based on information, is to exhibit competences in analytical methods. This course aims to advance the understanding of students in analytical methods by training them in the basic concepts of descriptive and inferential statistics and by using those concepts through a hands-on approach.

REQUIRED BOOKS AND MATERIALS

- Meier, K., Brudney, J., & Bohte, J. (2008). *Applied Statistics for Public & Nonprofit Administration (7th Ed.)*. Cengage Learning.
- Lewis-Beck (1980*). Applied Regression: An Introduction* (Vol 22.). SAGE Publications.
- *Microsoft Excel* (required).
- We will use *STATA* as statistical analysis package. Please note that you can use *R* or *SPSS* if you want, but examples in classes will mostly show examples using STATA.

GRADING

10% Class attendance and participation

50% Quizzes. 15-30 minutes quizzes will be administered in some classes, which will ask about concepts reviewed in class and/or to solve assigned exercises. I will consider just the 5 best grades out of 6 quizzes. Please note that there is no make-up quiz if you miss a class.

40% Practice sessions and term project (in groups). Students will select a topic to work with real-data and apply concepts reviewed in class. In particular, we will have 3 practice sessions that will require analyzing your data and reporting on specific tasks. These sessions will also serve as a way to advance your projects as much as possible and to get feedback before the final report of the project.

POLICIES

Grade Disputes. If students have a grade dispute, they should submit a one-page memo to the instructor presenting evidence for their case. The instructor will review and reconsider the original assignment. This review may lead to a grade increase but equally may lead to a grade decrease based on the new overall evaluation.

Class Etiquette. In order to make the class as enjoyable as possible for everyone, cell phones should be turned off during the class. Reading outside material, talking during lectures, leaving the classes early, text messaging, emailing, and surfing the web for non-class-related websites are prohibited in class. In addition, please arrive class on time.

Disabilities. Those with any form of disability should inform me during the first week of class so that I may make reasonable accommodations where necessary.

Academic Integrity: You will be held to the very highest standard of academic integrity in this course. You are required to read "Rutgers University Academic Integrity Policy" here: http://academicintegrity.rutgers.edu/files/documents/AI_Policy_9_01_2011.pdf. In addition to those policies, and as future or current members of the Public Administration, students are expected to show the highest ethical standards during the course.

SCHEDULE

W	Date	Activities	Class topic	Readings
1	09-12		Diagnostic Test & Introduction	
2	09-19	Groups	Measurement and Research Design	MBB: Ch 2, Ch 3
3	09-26	Quiz 1 One-page outline describing term project	Research Design	MBB: Ch 3
4	10-03		Frequency Distributions, Data Management and Measures of Central Tendency (Introduction)	MBB: Ch 4
5	10-10	Quiz 2	Measures of Central Tendency and Measures of Dispersion	MBB: Ch 5, Ch 6
6	10-17	Practice session 1	Introduction to Probability and Probability Distributions	MBB: Ch 7: 113-120, Ch 8
7	10-24	Quiz 3	Introduction to Inference	MBB: Ch11, Ch 13
8	10-31	Quiz 4	Hypothesis Testing and Groups Comparison	MBB: Ch 12, Ch14
9	11-07	Practice session 2	Construction, Analysis and Interpretation of Contingency Tables	MBB: Ch 15, Ch 16
10	11-14	Quiz 5	Introduction to Regression Analysis	MBB: Ch 18, Ch 19, LB: 9-46
11	11-21	Practice session 3	Multiple Regression	MBB: Ch 21, LB: 47-72
12	11-28	Thanksgiving recess (no class)		
13	12-05	Quiz 6	Regression Output and Data Management	MBB: Ch 23: 437-444, 448-452

MBB: *Applied Statistics for Public & Nonprofit Administration*, LB: *Applied Regression: An Introduction*