MILANO THE NEW SCHOOL FOR MANAGEMENT AND URBAN POLICY

Syllabus
Quantitative Methods

Fall 2009
Monday and Wednesday 6:00-7:50 pm

Prof. Rachel Meltzer
meltzerr@newschool.edu
Office hours: TBA

Teaching Assistant: Nathan Gilbert
gilbn523@newschool.edu

COURSE DESCRIPTION
This course introduces students to basic statistical methods and their application to management, policy and financial decision-making. The course develops basic skills and encourages a critical approach to conducting independent statistical analysis and assessing statistical findings. For those planning to continue studying statistics, this course provides the foundation for that further work. This course will focus on both the theory and application of various statistical tools. The course will also emphasize data analysis, using the software package SPSS. An emphasis will be placed on the practical applications of these methods, and students will be expected to evaluate policy questions through the lens of quantitative reasoning.

TEXTS/MATERIALS
* Healey, Joseph F. Statistics: A Tool For Social Research (8th Edition).
Belmont CA: Wadsworth Publishing. Students are encouraged to seek a used version.
* Students should obtain a basic hand calculator (capable of computing square roots and squares).
* Optional: Students who will have trouble coming to the school computer lab may elect to purchase SPSS. However, the lab is usually open and the SPSS package is expensive! (over $90).

REQUIREMENTS
Class Participation
Students will be expected to attend and be engaged with class. This means that students should read the assigned readings when they are due and participate in the discussion. Assignments are expected to be of high quality and to be completed on time.

Class Project
Students are expected to complete a project in SPSS during the course of the semester. The project will be due at the very end of the semester, but will apply concepts covered throughout the term. More details on the project will be forthcoming.

Homework
Students are expected to complete seven homework assignments throughout the semester (see the schedule at the end of the syllabus for exact due dates). Each assignment will cover material from the previous week, and will include both manual calculations and SPSS analysis (when

SPSS material has been covered). For work done in SPSS, text from the data editor and output window should be pasted in the homework document (this will be demonstrated in SPSS lab). Students are encouraged to work with other classmates on their homework assignments, but each student must turn in his or her own final product. All assignments are turned in at the beginning of class the day they are due and answers will be posted on Blackboard later that week. Homework will be graded with a check, check-plus or check-minus. Please make a copy of your homework for yourself before turning it in.

Grading Breakdown:
In-class midterm exam: 25%
Class project: 25%
In-class final exam 35%
Timely completion of assigned homework and contribution to class discussion: 15%

POSTING OF LECTURE NOTES AND OTHER WRITTEN MATERIAL
All materials for the course will be posted on Blackboard. I will post lecture slides or notes the day before class at the latest. Students are encouraged to print these out and bring them to class. However, lecture notes are not a replacement for attending class.

Class schedule

Date	Topic	Reading	Deliverable
8/31	Basic Mathematics Review and Intro to Stats	Prologue and Chapter 1	Student Info Sheet
9/2	Basic Descriptive Statistics	Chapter 2	
9/7	**Labor Day**	**NO CLASS**	
9/9	SPSS Applications	**LAB Session I**	
9/14	Basic Descriptive Statistics (if necessary)	Chapter 2	HW #1 Due
9/16	Measures of Central Tendency	Chapter 3	
9/21	Measures of Dispersion	Chapter 4	
9/23	SPSS Applications	**LAB Session II**	
9/28	**Yom Kippur**	**NO CLASS**	
9/29	How to make presentations (**Tues class**)	**Posted on Blackboard**	HW #2 Due
9/30	The Normal Distribution	Chapter 5	
10/5	Intro to Inferential Statistics: Sampling and the Sampling Distribution	Chapter 6	
10/7	Estimation Procedures	Chapter 7	HW #3 Due
10/12	SPSS Applications	**LAB Session III**	
10/14	Hypothesis Testing: The One-Sample Case	Chapter 8	
10/19	Hypothesis Testing: The Two-Sample Case	Chapter 9	HW #4 Due
10/21	Review		
10/26	**In-class midterm exam**		
10/28	Hypothesis Testing: The Analysis of Variance	Chapter 10	
11/2	SPSS Applications	**LAB Session IV**	
11/4	Hypothesis Testing: Chi-Square Analysis	Chapter 11	
11/9	SPSS Applications	**LAB Session V**	HW #5 Due
11/11	Bivariate regression	Chapters 12 and 15	
11/16	Bivariate correlation	Chapters 12 and 15	
11/18	SPSS Applications	**LAB Session VI**	
11/23	Multivariate Techniques (introduction)	Chapters 16 and 17	HW #6 Due
11/25	**THANKSGIVING**	**NO CLASS**	
11/30	Multiple Regression	Chapter 17	
12/2	SPSS Applications	**LAB Session VII**	
12/7	Regression and Correlation SPSS Applications	**LAB Session VIII**	
12/9	Regression and Correlation SPSS Applications (in classroom)		HW #7 Due
12/14	Review		
12/16	**In-class final exam**		Final Project Due