Introduction

This course is designed to equip you 1) to read and understand published quantitative research in social science fields and 2) to engage in statistical analysis of quantitative data in your own research. To that end, we will be taking a whirlwind tour of statistical techniques this semester, from the very basic (calculating means and standard deviations) to the more advanced (assessing heteroskedasticity and performing logistic regression).

Readings


I am assigning this edition, as opposed to the 4th or 5th edition, simply to save you money. Truly, introductory statistics have not changed much since 1998!

We will also be reading a few chapters from Gujarati’s *Basic Econometrics*, 4th Edition. I will make portions of this book available in the Johnson Tower 7th floor computer lab. Please do not remove them from the building.

Grading

A total of 1000 points are available for this course. They will be distributed as follows:

1. Five homework assignments (60 points each). These assignments will be due at various times throughout the semester and will consist largely of math problems and computer exercises. You may work with other students on the assignments, but merely copying someone else’s work is not acceptable. You must also show all of the steps you took to reach the final answer.
2. Two exams (300 points each). These will be held in class on February 23 and April 27. Exams will focus on interpretation, though you will be asked to perform some calculations as well.

3. Class participation and attendance (100 points). Class participation and attendance are required. Notify me before class if you must be absent. I also expect that everyone will make contributions to our class discussions.

My grading scale is:

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**Software**

Your homework assignments will require you to use Stata, a statistical software program. Stata offers, by far, the best combination of user friendliness and power of any statistical software program. Once you learn it, you will wonder why you ever spent time with other, inferior software programs (that will remain unnamed). The computers in the 7th floor lab are equipped with Stata, but I also have a deal for you if you would like to order Stata for yourself. Keep reading.

Stata comes in three flavors: Small Stata, Intercooled Stata and Stata SE. Small Stata does not allow you do much and probably is not worth owning. Intercooled Stata is the next biggest size and allows you to do everything that Stata SE can do, except for handling extremely large datasets. Thus, Intercooled Stata is probably the best bet for you right now. To order a copy for pick up here at WSU, contact StataCorp directly by phone at 800-782-8272 (Monday through Friday 8:00 to 5:00 CST), by fax at 979-696-4601 or online at www.stata.com/order/new/edu/gradplans/gp-campus.html. Be willing to fork over over $145 for the perpetual license (meaning you may use the program forever). You can purchase a one-year license for $89, but I suspect you will want to use Stata for more than one year, and so the perpetual license is the best deal.

**Other information**

If there are things I talk about in class that you do not understand, do not hesitate to talk to me about them. I am here to help you learn the course material. And if there are
other matters that you think should be brought to my attention, let me know.

LATE ASSIGNMENTS. Assignments must be turned in at the beginning of class on the date they are due or they will be considered late. For each day an assignment is late, I will subtract 10 percent of the assignment’s total point value from your score.

ACADEMIC MISCONDUCT. I do not tolerate plagiarizing or cheating of any kind. Such behavior will result in failing the course and other disciplinary action. Please visit the university’s website at http://www.wsulibs.wsu.edu/plagiarism/main.html for a full description of the types of academic misconduct. If you are unclear about what constitutes plagiarism or cheating, see me immediately.

DISABILITY ACCOMMODATION. Reasonable accommodations are available for students who have a documented disability. Please notify me during the first week of class of any accommodations needed for the course. Late notification may cause the requested accommodations to be unavailable. All accommodations must be approved through the Disability Resource Center, which is located in the Administration Annex room 205 or call 335-3417 to make an appointment with a disability counselor.

Course Outline

Week 1 (January 12): Looking at Data Distributions
   Assignments: Read MM1
   Familiarize yourself with Stata. I have posted several tutorials on my website.

Week 2 (January 19): Looking at Data Relationships
   Assignments: Read MM 2
   HW 1 distributed

Week 3 (January 26): Producing Data and Probability
   Assignments: Read MM 3.1-4.2
   Read “Dead Grandmothers” article from my website
   HW 1 due

Week 4 (February 2): Probability and Inference
   Assignments: Read MM 4.3-5.2

Week 5 (February 9): Inference
   Assignments: Read MM 6.1-6.3, 7.1
   HW2 distributed

Week 6 (February 16): Inference for Distributions
   Assignments: Read MM 7.2-8.2
   HW 2 due
Week 7 (February 23): Exam I

Week 8 (March 2): Two-Way Inference and Regression
   Assignments: Read MM 9.1-10.1

Week 9 (March 9): Regression
   Assignments: Read MM 10.2-11
               HW 3 distributed

Week 10 (March 23): Regression Diagnostics I
   Assignments: Read Gujarati 9-10
               HW 3 due

Week 11 (March 30): Regression Diagnostics II
   Assignments: Read Gujarati 11-12
               HW4 distributed

Week 12 (April 6): ANOVA
   Assignments: Read MM 12-13
               HW4 due
               HW5 distributed

Week 13 (April 13): Logistic Regression
   Assignments: Read MM 15
               Read Gujarati 15
               HW5 due

Week 14 (April 20): NO CLASS

Week 15 (April 27): Exam II