

Economics 310
Fall 2007
University of Wisconsin – Madison

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Social Science 6460

Syllabus - Statistics: Measurement in Economics

(revised 09/11/2007)

1. Course Description and Goals

Econ 310 is a semester long course in probability and statistical inference. The course goals are: 1) To introduce students to the language and philosophy of statisticians 2) To help students to be effective consumers of empirical research and 3) To interest students in further study of statistics and econometrics. As such, the topics will be general in nature and not necessarily specific to economics issues alone, though of course some topics will be about applications to economic and business problems.

2. Contact Information: The best way to reach me is by e-mail; my e-mail address is woochang@wisc.edu. The office hours are on Monday, from 2:00 to 4:00 PM. The office phone number is 263-3871.

3. Teaching Assistants and TA discussion sessions

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| Carl Sanders | Ho-jun Lee |
| 6413 Social Science | 6445 Social Science |
| cesanders@wisc.edu | lee16@wisc.edu |

Though the attendance is not mandatory, I highly encourage you to attend the discussion sessions. I will assume that every student is well aware of all the materials covered in the session.

4. Reading Materials

The main source of readings for this course is the *reading packet*, which can be purchased at the Social Science Copy Center soon. We will also use *Statistics* (2007, 4th edition,

Norton) by Freedman, Pisani, and Purves as a supplementary textbook.

Acknowledgement: I thank Professor William Sandholm for allowing me to use a draft of his textbook manuscript.

5. Course webpage

There will be a web page devoted to the course. The course web page address is : <https://mywebspace.wisc.edu/woochang/web/310.htm> . You can download the updated syllabus, lecture notes, homework, and other relevant information about the course there.

6. Exams

We have two midterm exams and the final. The first midterm is on October 9th during class time and the second midterm is on November 13th during class time. Only if a midterm is missed due to illness, supported by documentation such as a doctor's note, or other unavoidable events, the final letter grade will be given by the weighted average of the other midterm, the final and homework score accordingly - **There will be no make-up midterm exams.** The final exam must be taken, and it is scheduled on December 17th, from 7:45AM to 9:45AM. Please take note that the final is cumulative. **Make-up final will only be given under exceptional circumstances, and notice must be given as early as possible.**

7. Homework

There will be 8 regular problem sets, and there might be one or two computer based problem set(s) during the semester. Please feel free to collaborate with other students, but turn in your own individual solution. **Late Assignments will not be accepted for credit.**

8. Grading

Two Midterms: 20% Each, Cumulative Final: 40%, Homework: 20%.

9. Course Outline (Tentative)

Week 1: Design of Experiments (*Statistics* Ch.1, 2).

Week 2, 3: Basic Concepts of Probability Theory (*Statistics* Ch. 13,14)

Week 4, 5: Random Variables, Expected Values – Moments (*Statistics* Ch. 16,17)

Midterm I (October 9th, in class)

Week 6: Common Probability Distribution
Week 7: Application of Probability Model
Week 8: Samples and Sampling Distributions
Week 9, 10: Basic Theory of Estimation
Midterm II (November 13th, in class)

Week 11: More on Estimation
Week 12, 13: Hypothesis Testing
Week 14: Regression and Correlation
Final: December 17th. 7:45 AM – 9:45 AM.

10. Economics Department Grievance Procedure

The Department of Economics has developed a grievance procedure through which you may register comments or complaints about a course, instructor, or a teaching assistant. The Department also uses course evaluations. If you wish to make anonymous complaints to an instructor or teaching assistant, the appropriate vehicle is the course evaluation. If you have a disagreement with an instructor or a teaching assistant, we strongly encourage you to resolve the dispute with him or her. The grievance procedure is for situations where neither the course evaluation nor direct contact is appropriate.

To file a grievance, you should go to Social Science 7238 and request a Course Comment Sheet. On it you must provide a detailed statement about what you find unsatisfactory. You must also sign the sheet, provide your student ID number, and address and phone number. The Department investigates grievance fully and will respond in writing.

Your name, address, phone number and student ID will not be provided to the instructor or teaching assistant and will be treated confidentially. The Department uses this information in case the Department Chair or a nominee wishes to meet with the student to gather additional information. The written response is mailed to the address provided by the student.