Economics 300: Quantitative Methods in Economics  
Spring 2013 (PAC107, MW 2:40 pm - 4:00 pm)

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(PAC303) and by appointment

Teaching Assistant: Alecia Ng (ang@wesleyan) and John Steele (jrsteele@wesleyan.edu).

Discussion Session: Alecia and John will hold weekly discussion sessions to answer your questions every Sunday from 7:30 pm to 9:00 pm in PAC107.

Computer Session: Manolis Kaparakis (mkaparakis@wesleyan.edu) will hold two computer sessions (Excel and Eviews sessions) in Allbritton 204 (see the attached class schedule).

Purpose: This course provides you with a basic knowledge of probability and statistics to understand empirical studies in economics. In addition, you will learn computer skills (Excel and Eviews) to undertake your own statistical research in economics.

Readings: The textbook is Wonnacott and Wonnacott, Introductory Statistics for Business and Economics, 4th edition (1990). Additional materials may be handed out in class and/or made available on the course website.

Course Grading: Final grades are calculated as the average of 7 components: class participation (5%), 10 problem sets (15%), quiz #1 (5%), quiz #2 (5%), midterm exam (15%), final exam (35%), and paper (20%).

Assignments: Problem sets will be given every week. They are to be dropped into the locked box by Monday night. I will take 5 points off late homework. After you turn in your homework, I will upload the solution key to our class website.

Class Participation: Please come to class, ask questions, and rigorously participate in discussion; I would not have much fun if I am the only one talking! Every now and then, you will have group discussion on examples/problems, and you will submit your answers as a group, which will just be checked for class participation. If you know that you will have to be late and/or leave early, please let me know in advance. Regular tardiness will negatively affect your grade.

Quizzes: There will be two quizzes (2/13 & 4/10). If you cannot take a quiz in the case of medical emergency, I will assign 40% of your total grade to the final exam provided that you give me a written proof.

Exams: Midterm exam is scheduled on 3/6 (Wednesday). If you cannot take the midterm in the case of medical emergency, I will assign 50% of your total grade to the final exam provided that you give me a written proof. I will reschedule final exam only in the case of serious emergency.

Paper: The paper is due on 5/8 (Wednesday). I will give the detail of the paper assignment later.

Warning: This course is relentlessly cumulative and demanding. Be prepared to spend a lot of time on it.
Course Outline

Week 1 (1/28-30): Probability (Chapter 3)

Week 2 (2/4-5): Probability Distribution (Chapter 4), problem set #1 due on 2/4

Week 3 (2/11-13): Two Random Variables (Chapter 5), problem set #2 due on 2/11, **quiz #1 on 2/13**

Week 4 (2/18-20): Sampling (Chapter 6), problem set #3 due on 2/18

Week 5 (2/25-27): Point Estimation & Confidence Intervals (Chapters 7 & 8), problem set #4 due on 2/25

Week 6 (3/4-6): Hypothesis Testing (Chapter 9), problem set #5 due on 3/4, **midterm #1 on 3/6**

Week 7 (3/25-27): Randomized Experiments vs. Observational Studies (Chapter 1)

Week 8 (4/1-3): Least Squares Estimations (Chapter 11), problem set #6 due on 4/1, **Excel session on 4/1**

Week 9 (4/8-10): Simple Regression (Chapter 12), problem set #7 due on 4/8, **quiz #2 on 4/10**

Week 10 (4/15-17): Multiple Regression (Chapter 13), problem set #8 due on 4/15, **Eviews session on 4/17**

Week 11 (4/22-24): Correlation & Extension (Chapters 14 & 15), problem set #9 due on 4/22

Week 12 (4/29-5/1): Instrumental Variable (Chapter 25), problem set #10 due on 4/29

Week 13 (5/6-8): TBD, **paper due on 5/8**

**Final Exam on 5/14 (Tuesday) from 2-5 in PAC107**