Economics 300: Quantitative Methods in Economics
Fall 2014 (PAC002, TR 9:00 am - 10:20 am)

Professor Karl David Boulware
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OFFICE HOURS: Wednesdays at 1:00-2:00, 2:00-3:00, and by appointment.

Teaching Assistant: Mackenzie McPike (mmcpike@wesleyan.edu).

Discussion Session: Mackenzie will hold weekly discussion sessions to answer your questions every Thursday from 8:00 pm to 10:00 pm in PAC001.

Computer Session: Manolis Kaparakis (mkaparakis@wesleyan.edu) will hold two computer sessions (Excel and Stata). See the attached class schedule for tentative dates and times.

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 Stata) 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 sum of 9 measures of communication: paper proposal (2.5), poster presentation (2.5), class participation (5), quiz #1 (5), quiz #2 (5), 10 problem sets (10), paper (20), midterm exam (20), and final exam (30).

Assignments: Problem sets will be given every week. They are to be dropped into the locked box by Tuesday night. I will take 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 examples/problems, and you will submit your answers as a group, which will be used for your class participation grade. 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 (9/18 & 10/30). If you cannot take a quiz in the case of medical emergency, I will assign 40 points of your total grade to the final exam provided that you give me a written proof.

Exams: The midterm exam is scheduled for 10/9 (Thursday). If you cannot take the midterm in the case of medical emergency, I will assign 50 points 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 medical emergency.

Paper: The paper is due on 12/5 (Friday). 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 (9/2-4): Probability (Chapter 3) – student information card due on 9/4.

Week 2 (9/9-11): Probability Distribution (Chapter 4) - problem set #1 due on 9/9.

Week 3 (9/16-18): Two Random Variables (Chapter 5) - problem set #2 due on 9/16, quiz #1 on 9/18.


Week 5 (9/30-10/2): Point Estimation & Confidence Intervals (Chapters 7 & 8) - problem set #4 due on 9/30.

Week 6 (10/7-9): Hypothesis Testing (Chapter 9) - problem set #5 due on 10/7, midterm #1 on 10/9.

Week 7 (10/14-16): Randomized Experiments vs. Observational Studies (Chapter 1) - paper proposal due on 10/14, Excel session on 10/16.

Week 8 (10/23): Least Squares Estimation (Chapter 11) - problem set #6 due on 10/23.

Week 9 (10/28-30): Simple Regression (Chapter 12) - problem set #7 due on 10/28, quiz #2 on 10/30.

Week 10 (11/4-6): Multiple Regression (Chapter 13) - problem set #8 due on 11/4, Stata session on 11/6.

Week 11 (11/11-13): Correlation & Extension (Chapter 14 & 15) - problem set #9 due on 11/11.


Week 13 (11/25): TBD.

Week 14 (12/2-4): Poster Sessions - paper due on 12/5.

Week 15 (12/12): Final Exam on 12/12 (Friday) from 9am-12pm.