ECON 300-03 Quantitative Methods in Economics
Fall 2014 Syllabus

Instructor: Pao-Lin Tien
Office: PAC312
Office Hours: Tue 10am-12pm, Wed 1:30pm-3:30pm
E-mail: ptien@wesleyan.edu

TAs: Josh Katz and Nancy Tang
E-mails: jmkatz@wesleyan.edu, ntang@wesleyan.edu

Introduction

This course is an introduction to quantitative techniques widely used by economists. Topics include various methods of applied statistics and probability that contribute to an understanding of economic literature and the pursuit of empirical research. The use of statistical packages (Excel and Eviews) will also be emphasized in class.

Computing

Some of the homework assignments as well as your individual project will require the use of statistical packages like Excel and Eviews. Both of these programs are available in the Wesleyan computer labs. We will not cover explicitly how to use these programs in class, so you are expected to familiarize yourself with these software packages on your own. However, you will have some help. The Quantitative Analysis Center (QAC) will offer 2 sets of instructional sessions on these programs and more. The dates and times for the QAC sessions are as follows:

Session 1 [Excel + Data Insight]
9/5 (Fri) 9:30-10:50am, 2:40-4pm, 4:10-5:30pm, 5:40-7pm ALLB204

Session 2 [Eviews]
10/16 (Thur) 4:30-6pm, 7-8:30pm ALLB204

You can choose whichever time slot is most convenient for you, but note that the lab room have limited number of seats, so seating is on a first come first served basis (don’t forget there are other sections of 300 students who’ll be coming to the sessions). So to prevent oversubscription, I will put up virtual sign-up sheets on Google Docs which will be e-mailed to you soon.

The QAC sessions are not compulsory, however, attendance will be taken at the sessions so that the 300 instructors can get a sense of the demand for these sessions. If you choose not to attend the sessions, note that I will not be available to answer questions regarding software usage. I will however provide related print materials on most of the things
covered in the QAC sessions on Moodle. And you will be amazed at how useful the “help” buttons are in Excel and Eviews.

QAC tutors are always available to assist you on these particular statistical packages as well. You can find tutoring information here: http://www.wesleyan.edu/qac/tutoring.html. However, do note that if you put things off ‘till the last minute right before the assignment is due, the lab room is usually filled to capacity and you will not be able to receive any help from the tutors. So planning ahead is the key!

Readings

Introductory Statistics For Business and Economics, 4th Edition by Wonnacott and Wonnacott is the textbook adopted for this course. Additional readings will be provided during the course.

Course Requirements

There will be two in class exams, one comprehensive final, nine homework assignments, and an empirical project (details of the project will be given in a separate handout later). I also expect participation in the class group exercises. The weights in determining the final course grade are:

Exam 1 15%
Exam 2 20%
Final 25%
Project 20%
Homework 15%
Class Participation 5%

Exams will take place in class on the following dates:

Exam 1 September 30th, 2014 (Tue)
Exam 2 November 4th, 2014 (Tue)
Final December 13th, 2014 (Saturday) 9am-12pm

Make up exams will not be possible so attendance is required on the stated exam dates. No exceptions will be made (so please don’t schedule flights that leave before your final exam!).

On time completion of required readings and assignments are expected. Late assignments will NOT be accepted. However, you are allowed to drop one homework assignment from the calculation of your final grade.

Any student who misses (or expect that he/she will miss) an exam or assignment deadline due to serious medical or family emergency must inform me and provide the required documentation either prior to the exam/assignment due date or no later than the end of the
class meeting following the exam/assignment due date. Upon verification of the validity of
the documentation, a heavier weight will be placed on the other exams in the case of
missing an exam. In the case of late assignments, I will allow an additional homework to
be dropped from the calculation of the final grade. Note that you are only allowed to miss a
maximum of one exam and two homework assignments (regardless of the reasons). If you
miss more than one exam I would recommend withdrawal from the class since chances of
you passing the class is slim. If you miss more than two assignments, 0 points for the
additional missed assignment would apply.

All assignments should be submitted in class (except for the final project write-up). If for
some reason you cannot attend class and wants to hand in the assignment using other
means (such as the class lockbox in the econ alcove), you must inform me first. I need to
know where and when you’ve left your assignment in order to determine that the
assignment has been handed in by the relevant deadline. The assignment will be
considered late and not accepted for grading if you fail to comply by these guidelines.

I will try to be prompt in grading and returning assignments and exams. I will also be as
careful as possible in assigning grades. However, if you believe a grading mistake has been
made, you may submit a written request for a re-grade of the whole exam/assignment
within a week after the exam/assignment has been returned, carefully explaining why you
believe the grade assigned is incorrect. Be forewarned, however, that your grade may go
up or down as a result of a re-grade.

Five percent of your grade is based on class participation, which may include in class
group or individual exercises (i.e. working on some problems in class). You should come
to class prepared (meaning reading/completing any assigned materials). You may be called
on in class to answer questions and you may be asked to show how you solved a problem.
Someone who actively participates will get 5 points; someone who participates somewhat
will get 4 points; someone who seldom participates will get 3 points; someone who does
not participate much and misses up to three classes will get 2 points; someone who misses
4 or more classes will get 1 point; and someone who does not participates at all and is
often absent or tardy will get 0 points.

Course Outline

1. Introduction and Overview
   Wonnacott and Wonnacott Chapter 1

2. Methods for Describing Sets of Data
   Wonnacott and Wonnacott Chapter 2

3. Probability
   Wonnacott and Wonnacott Chapters 3 and 6-1

4. Random Variables and Probability Distributions
   Wonnacott and Wonnacott Chapters 4, 5, and the rest of 6
5. Inference  
Wonnacott and Wonnacott Chapters 7, 8, and 9

6. Simple Linear Regression  
Wonnacott and Wonnacott Chapters 11 and 12

7. Multiple Regression  
Wonnacott and Wonnacott Chapters 13, 14, and 15

8. Regression Pitfalls  
Wonnacott and Wonnacott Chapter 15

9. Times Series  
Wonnacott and Wonnacott Chapter 24

10. Panel Regression

Special Notes
For this course, we’ll not be following the Wonnacott and Wonnacott text exactly. So the powerpoint slides I provide and the notes you take during class would be your best resource for preparing for the exams. And the slides for each lecture will be made available to you the day before the lecture.

Please come to class punctually and be prepared to participate in class discussions. Turn off your cell phone during class. *The use of laptops is not allowed in class.*

In an effort to improve efficiency during office hour times, if you’d like to come in to see me, please try to sign up for an office hour slot using the following link to Google Docs (link also available on Moodle):  
https://docs.google.com/spreadsheets/d/1k3w7RjprM2hkNtS-iT_TUparioNtjBjr1IalVTYuVSs/edit?usp=sharing
The sign-up sheet will be updated every Thur with slots for the following week. Please try not to sign up for more than one slot at a time (but you can certainly stay longer in the office if that becomes necessary and no one else is around), and try not to change the time slot you signed up for after you’ve committed to it.

All students are expected to adhere to the Wesleyan University Honor Code ([http://www.wesleyan.edu/studentaffairs/honorboard/honorcode.html](http://www.wesleyan.edu/studentaffairs/honorboard/honorcode.html)). If you have questions regarding plagiarism and the appropriate way to give credit to sources in any work you submit, please contact me or schedule an appointment with the Olin librarians. You are allowed to work on the homework with your classmates, but you must hand in your own copy of the homework with the answers written out in your own words. No credit will be given for homework with exactly the same answers. I will not tolerate academic dishonesty. Any such behavior will be reported to the VP for Student Affairs and the Student Honor Board.
Wesleyan University is committed to ensuring that all qualified students with disabilities are afforded an equal opportunity to participate in and benefit from its programs and services. To receive accommodations, a student must have a documented disability as defined by Section 504 of the Rehabilitation Act of 1973 and the ADA Amendments Act of 2008, and provide documentation of the disability. Since accommodations may require early planning and generally are not provided retroactively, please contact Disability Resources as soon as possible. If you believe that you need accommodations for a disability, please contact Dean Patey in Disability Resources, located in North College, Room 021, or call 860-685-5581 for an appointment to discuss your needs and the process for requesting accommodations. The Disabilities Services website is http://www.wesleyan.edu/studentaffairs/disabilities/index.html. Note that I will not be able to provide accommodations to students who claim disability without documentation, hence please make sure you sort things out with Dean Patey and get the documentation to me before your first assignment or exam is due.