

Econ 97
Economic Toolkit
UCLA SUMMER 2017

Instructor: Wookun Kim

Time and Location (Lecture): Tue, Thu 1:00-3:15pm, Public Affairs 1222

E-mail: wk9@ucla.edu

Office Hours: Tue 11:00am-12:50pm (tentative) or by appointment, Alper Room (Bunche 2265)

Course Description

This course is designed to provide students with essential mathematical/statistical/computing skills for studying economics. The first half of the course provides lectures on calculus and statistics; during the second half, students will learn how to use Excel and Stata to analyze data.

Prerequisites

There is no prerequisite for this class.

Textbooks

There is no required textbook for this class.

Grading

You will receive either P or NP for this class. Your grade will be determined as follows:

- Attendance: 10%
- 5 weekly assignments (due Tuesdays starting from Week 2): 75%
- Final group project (due September 14th): 15% (presentation 5%; document submitted 10 %)
- No written examinations. If your final score is 65 or above, you will receive a grade of P; otherwise NP.

Every Thursday, a new weekly assignment will be posted on the course website due the following Tuesday at the beginning of the class. Late submission after the class time is accepted with 20% only on the same due date. Weekly assignments will have different maximum scores, depending on the lengths and difficulties.

A group final project is required for this class. For this project, you will make use of the mathematical/computing skills you learned from the class, and analyze an economic phenomenon of your choice using a real dataset. Each group will submit a typed document (approximately 5 pages). In Week 2, I will post a document providing more details on this project.

Email Policy

When you have a question about the course content, you are encouraged to make use of the class discussion forum available on the course website. If you send me an email, please be as detailed and concise as possible. I will respond to an email within 24 hours. If you do not hear back from me after 24 hrs, please send me a reminder.

Academic Misconduct

Any case of academic misconduct/dishonesty will be reported to the Office of the Dean of Students. For more details please refer to the Office of the Dean of Students website at <http://www.deanofstudents.ucla.edu/>

Software

In this class, we will use Microsoft Excel and Stata. Although students are allowed to use other softwares in upper level econ courses, instructions are often given only for Excel and/or Stata. Both of the softwares are available in the social science computing labs. You can find the list of the computing labs and hours at <https://computing.sscnet.ucla.edu/labs/hours-locations/>. If you choose to, you may obtain a student copy of Stata to install on your own computer. Visit www.stata.com and order the student version. Alternatively, you can easily VPN to the UCLA network and access it for free.

Disabled Students and the Office of Student Disability

Any student with a pre-existing illness or condition who requests special arrangements must (a) qualify under OSD rules for such special arrangements and (b) must take the exam with OSD. Any such arrangements with OSD must be made during the first week of classes. The instructor must be informed of any such arrangement in the first week of classes. For additional information and the qualification conditions of the Office of Student Disabilities (OSD), please visit their website at <http://www.osd.ucla.edu/>

Tentative Course Schedule

Week 1: Mathematics

- Aug. 8th: Rectangular Coordinates, Functions, Analyzing Graphs of Functions, and Properties of Logarithms and Exponents;
- Aug. 10th: First Derivatives, Partial Derivatives, and Elementary Integral Calculus;

Week 2: Applications

- Aug. 15th: Unconstrained/Constrained Optimization and Envelope Theorem (PSET1 Due);
- Aug. 17th: Examples;

Week 3: Statistics

- Aug. 22nd: Counting Methods, Probability and its Rules, Bayes' Theorem, and Law of Total Probability (PSET 2 Due);
- Aug. 24th: Discrete/Continuous Random Variables, and Probability Distributions;

Week 4: Data Analysis Using *Excel*

- Aug. 29th: Basic Arithmetics, Mathematical Functions, Graphing and Analytical Tools (PSET 3 Due);
- Aug. 31st: Applications;

Week 5: Data Analysis Using *Stata*

- Sept. 5th: Overview of Stata and its Programming Language; Graphical and Statistical Analysis of Data (PSET 4 Due);
- Sept. 7th: Applications;

Week 6: Final Project

- Sept. 12th: Final Project Presentations (PSET 5 Due);
- Sept. 14th: Final Project Presentations (Final Project Due).