Econ 120A – Econometrics A
Syllabus

Course Information

- Lectures: Mon/Tue/Wed/Thu, **12:30-1:50pm**, in **Peterson #103**
- Weekly discussion: **Friday**, **12-1:50pm**, **Peterson #103**
- Instructor: Dr. Oana Tocoian
  - otocoian@ucsd.edu, Economics building #110B
  - Office hours: Tue/Thu 10-11am, or by appointment.
- Teaching assistant:
  - Nobuhiko (Nobu) Nakazawa
  - nnakazaw@ucsd.edu
- Course description:
  - As the first of the econometrics sequence, this course introduces the science of statistics. It is designed to provide the building blocks necessary to construct rigorous econometric analysis. These building blocks include basic statistics, probability rules, and the formal methods used by statisticians to learn about the real world from the data.

Webpage and Required Materials

- Class webpage: Canvas
- Textbook: "Introductory Statistics for Business and Economics" by T.H. Wonnacott and R.J. Wonnacott, Fourth Edition, John Wiley and Sons: New York.
  - Copies are available on reserve at Geisel Library
  - You can buy a hard copy at the bookstore for $64 (new) or $48 (used)
  - The electronic version ($32) will be linked through the Canvas page and is an opt-out system

Software

The software for this course is the Microsoft Excel spreadsheet program, which is available in the computer lab in Econ 100, and in other computer labs on campus.

Grade Composition

- Homework 10%
- Midterm 35%
- Final 55%

Exam schedule:

- Midterm – Wednesday of week 3, Aug 21, in class
- Final – Saturday of week 5, Sept 7, 11:30a-2:29p, location TBA (The final is cumulative.)

Exam policies

- Exams are closed book – just bring your ID, pen/pencil and a calculator.
- Exams *have* to be taken at the dates and times listed above, except in extra-ordinary circumstances – such as a medical emergency or for other University-approved reasons. Please let me know as soon as possible if such a situation arises.

Homework

Problem solving is essential in order to understand and absorb the material. There will be 4 problem sets, due on Sunday evening. You will have a chance to correct your answers after seeing the key, so you should always be able to get full credit as long as you put in the effort.

Attendance

Please attend all lectures and discussion sections. If you miss any, I recommend coming to office hours to make sure you are up to speed with the material and class announcements.

Future opportunities*:*

- *120AH*: If you earn an A/A- grade in my class this quarter, I recommend that you take the one-unit honors class 120AH in Fall 2020. Honors classes are capped at 20 students and you will get to know the faculty member well (important for getting informed letters of recommendation). These classes typically have you give a short presentation and write a short paper. Presenting and writing in the major are two valuable skills that are challenging for us to offer in large classes.

Accommodation for disabilities

If you have a disability, please register with the Office for Students with Disability and bring your documentation to Brittany Thompson (in Sequoyah Hall 245) and me as soon as possible. More information available here: https://bit.ly/2Qi1js5

Academic Integrity

Students are expected to do their own work, as outlined in the UCSD policy on Academic Integrity. Cheating will not be tolerated, and any student who engages in suspicious conduct will be subjected to the disciplinary process. Students found guilty of academic dishonesty will earn a failing grade for the course. In addition, the Council of Deans of Student Affairs will impose a disciplinary penalty.

Course Outline

We will cover chapters 1 through 9 of the textbook, more-or-less in order. I will post any updates to the schedule on the Canvas page.

Part I: Basic probability and statistics

1. Introduction (Ch. 1)
2. Descriptive Statistics: mean, median, range, variance, etc. (Ch 2.1-2.3, 2.5-2.7)
3. Probability (Ch. 3)
4. Probability Distributions (Ch. 4)
5. Two Random Variables (Ch. 5)

Part II: Inference for Means and Proportions

6. Sampling and the Central Limit Theorem (Ch. 6.1-6.4)
7. Point estimation, Law of Large Numbers (Ch. 7)
8. Confidence Intervals (Ch. 8.1-8.5)
9. Hypothesis Testing (Ch. 9)