

# Econometrics C

## Econ 120C, Winter 2018

**Course description:** As the last of the econometrics sequence, this course is mainly designed to provide the student with the statistical estimation, and hypothesis testing of the panel data and time series data. We are going to build on the material that you learned in Econ 120A and 120B. You'll learn how to estimate these models on real data sets using Stata, a statistical package that you were introduced to in Econ 120A and 120B.

**Prerequisites:** Econ 120B (Econometrics B) or Math 181B (Intro/Math Statistics II)

### Course materials

Required textbook: James H. Stock and Mark W. Watson, *Introduction to Econometrics*, 2nd Edition, Pearson. You can use other editions of the textbook if you wish, but the problem set will refer to the 2nd edition.

Required Statistical Software: Stata

- This year our school has purchased a site license for Stata/SE 15. UCSD students can download and install Stata in their computer freely.
- The code, serial number, software file, and Stata installation guide have been posted on TritonED site of the class.

**Lectures:** MWF 10:00 – 10:50am (A00) and 11:00 – 11:50am (B00) at Center Hall 214

**Instructor:** Dr. Munpyung O

- Office: Economics 109
- Office hours: 1:30pm – 2:30pm on Wednesdays and Fridays and by appointment.
- e-mail: [munpyung@ucsd.edu](mailto:munpyung@ucsd.edu)

Please use your **ucsd email** and include “**Econ 120C**” in the subject line of your email. The professors and TAs will respond to **thoughtful** emails, though not on Sunday and some Saturdays. We cannot answer all the questions through emails since some questions are hard to answer through emails.

**Discussion sections** at Peter 104

- 8:00 – 8:50pm and 9:00 – 9:50pm on Thursdays for A00 section
- 8:00 – 8:50pm and 9:00 – 9:50pm on Tuesdays for B00 section

**Teaching Assistants**

- Nguyen, Lam, SH 234, [lh022@ucsd.edu](mailto:lh022@ucsd.edu)
- Cahan, Dodge, Econ 128, [dcahan@ucsd.edu](mailto:dcahan@ucsd.edu)
- Spini, Pietro, SH 226, [pspini@ucsd.edu](mailto:pspini@ucsd.edu)
- Martinez Iriarte, Julian, SH 228, [jum024@ucsd.edu](mailto:jum024@ucsd.edu)

**Undergraduate TA (UIA):** Wang, Zhirui, [zhw099@ucsd.edu](mailto:zhw099@ucsd.edu)

You can ask for help from any of the TAs, but if you have general questions, please use the class email [ucsdecon120c@gmail.com](mailto:ucsdecon120c@gmail.com)

**Lectures and Discussion Sections:** It is important to come to every lecture. If you should miss a class, it is your responsibility to get the notes and any information provided in class. There are weekly discussion sections for this course. You are **strongly** recommended to attend them since the TA will review material covered in class, and also introduce material not covered in class and go over practice problems, the kind of problems you may encounter on exams. You will also be able to ask the TA any question about the material covered in the lectures during these discussion sections.

**Problem Solving and Economics Tutoring (PSET) Center:** The Economics Department has made a problem solving and tutoring center available to all students in Econometrics (120ABC) on M-Th evenings and on Sunday. The ability to apply the concepts from class to solve problems is the most important skill we want you master in our core classes. PSET is designed to help you learn to tackle problems successfully by having grad and undergrad TAs there to help you think through a problem - right when you get stuck. If you struggle to tackle your homework, we believe that PSET will be an efficient and effective way for you to learn how to think like an economist.

**PSET schedule:** From week 2 to week 10

- Monday - Thursday: 6:00pm - 9:00pm @ Econ 300
- Sunday: 2:00pm - 6:00pm @ Econ 300

**Course web page:** A course webpage is available at <http://tritoned.ucsd.edu>. It will include information relevant to the course, such as syllabus, problem sets, data sets and more. **You should check this page regularly.**

**Lecture slides:** I have created my lecture slides for my own use not for distribution. These are very far from a complete record of what I say in class. By themselves they will be insufficient for keeping up with the course. Rather, the slides will serve as an outline for developing the concepts in each lecture while still requiring active learning (attending lectures, taking notes, and asking questions).

- I will post my lecture slides AFTER classes.
- It is not completed or polished and cannot be a substitute for my lectures. These are just lecture slides and undoubtedly contain errors.
- Many details, derivations, and examples are left out.
- A nontrivial fraction of the exam questions could be based on class discussion and examples which are uncovered in the lecture slides.
- Again, the lecture slides cannot be a substitute for my lecture. Without taking class, you will not understand my lecture slides.

**Problem Sets:** I will periodically assign problem sets throughout the course. Even though they will not be collected or graded, it is VERY important to do them. The problem sets are the best

way to learn and be prepared for the exams.

**Exams:** The midterm will be given in regular class, Friday, February 9. The final will be given 8:00 - 11:00am on Friday, March 23 for section A00 and 11:30 - 2:30pm for section B00 on Monday, March 19. The dates for the exams are not negotiable. If you have a conflict with the scheduled tests, it is your responsibility to drop the course. The final exam will be cumulative, but focus more on the material covered after the midterms. All tests are closed book and notes.

**Makeup exams:** Make-up examinations will be given only under very unusual circumstances and only if the student provides official written notification to the instructor no less than two weeks prior to the missed test. If you miss a midterm for a **justifiable** and **verifiable** reason, your midterm grade will be your grade on the final. Students who miss a test without a justifiable and verifiable reason, will most likely fail the course. No exceptions!

**Grades:** The overall score will be computed as follows:

- In class quizzes: 10%
- Midterm: 35%
- A comprehensive final: 55%

There is no opportunity in this course to do “extra credit” work. Your grade will be determined solely by the components listed above. The overall course grade, computed using the weights specified above, will be curved.

I reserve the right to modify these weights as needed during the quarter.

**Disability:** If you have a documented disability, please bring your documentation to me as soon as possible so that I can make suitable accommodations for you. If you believe that you have a disability and desire accommodation, please register with the Office for Students with Disabilities.

**Class conduct:** Each student is expected to contribute and help to maintain a positive classroom environment conducive to learning. Do not socialize or read newspapers during class, and be sure your cell phones are turned off. No text messaging is allowed. If you must arrive late or leave early, do so quietly.

**Academic Integrity:** Any student found responsible for violating UCSD’s academic integrity policy will earn a failing grade for the course. In addition, the Council of Deans of Student Affairs will impose a disciplinary penalty. You can find information on the university’s policy on academic integrity at this website: <https://students.ucsd.edu/academics/academic-integrity/policy.html>

### **General comments**

- Even if I don’t explicitly assign reading from the text, it is a good idea to read the chapter before coming to class in order to have some understanding of the concepts to be presented.

- ***This class moves rapidly.*** *Cramming* is not an effective way to learn this material. A student who keeps up with the topics as they presented will find the course much more enjoyable and will master the concepts more quickly.
- **Attend all lectures.** You are responsible for any information given during lectures.
- Please do use my office hours for everything related to the content of the course. If you have doubts about the materials, do not wait until a few hours before the exam.
- Students are encouraged to ask questions in class. You've probably heard this before, but if you have a question, chances are that others in the class have the same question.
- Finally, ask questions before, during, or after class or come to my office if you having any trouble with the course material. Remember the goal of education is to learn, not to suffer!

**Course content and schedule** (Changes, if any, will be announced in the class.)

The following course schedule should be considered extremely tentative, and will likely change depending on our pace through the quarter. I reserve the right to modify this schedule as needed during the quarter.

1. Introduction and a brief review (Chapter 1 - 7)
2. Discrete Choice Model. (Ch 11)
3. Instrumental Variable Regression. (Ch 12)
4. Regression with Panel Data (Ch 10)
5. Experiments and Quasi-Experiments (Ch 13)
- \*6. Time Series Regression (Ch 14, part of Ch 15)