

## Econometrics 120C

**Team**

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**Disclaimer**

- The information below reflects the official schedule of classes as of January 2, 2021. Please check the schedule for updates.
- Given the uncertainty due to the Covid-19 pandemic, some of the details on the syllabus may change. Please check Canvas and the syllabus regularly for updates.

**1 Organization****1.1 Class**

Section A: Monday/Wednesday/Friday, 10:00am – 10:50am online (Zoom)

Section B: Monday/Wednesday/Friday, 11:00am – 11:50am online (Zoom)

There will be no class on January 18 (Martin Luther King Holiday) and on February 15 (Presidents' Day).

I will discuss the same material in both sections.

**1.2 Discussion sessions**

Section A:

1. Tuesday, 5:00pm – 5:50pm online (Zoom)
2. Tuesday, 6:00pm – 6:50pm online (Zoom)

Section B:

1. Wednesday, 7:00pm – 7:50pm online (Zoom)
2. Wednesday, 8:00pm – 8:50pm online (Zoom)

There are no discussion sessions during the first week.

In the weekly discussion sessions, the TA will discuss problem sets. Every week, the same problems sets will be discussed in all four discussion sessions. The problem sets will be made available before the discussion sessions.

The weekly problem sets are not graded and you do not have to hand them in.

### 1.3 Asynchronous access

All class sessions and discussion sessions **will be recorded** and made available asynchronously via Canvas.

### 1.4 Office hours

#### 1.4.1 Kaspar Wuthrich (Instructor)

To accommodate different time zones, I will offer two office hours:

Wednesday, 8:30am – 9:30am, online via Zoom

Wednesday, 8:00pm – 9:00pm, online via Zoom

I will also hold review sessions before the midterm and the final exam.

#### 1.4.2 TA office hours

The TAs will hold regular office hours. The schedule will be announced on Canvas. Extra office hours will be offered in the week of the midterm and final exam.

#### 1.4.3 Homework rooms

Unfortunately, there will be no PSET lab this quarter. Therefore, we will offer homework rooms, where you can work your assignments and have access to support. The homework rooms will be offered by the undergraduate instructional apprentices (undergraduate TAs). The schedule will be announced on Canvas.

## 2 Overview

ECON120C is the third course in the core econometrics sequence. We will study a variety of econometric techniques that are widely applied in business, finance, public policy, and other areas. Throughout, we will focus on both understanding and doing. The understanding will come from lectures, class discussions, and problem solving. The doing will come from statistical software use.

### 3 Topics

1. Introduction and OLS review
2. OLS asymptotics
3. Threats to the validity of regression analyses
4. Instrumental variables methods
5. Panel data methods
6. Potential outcomes, experiments, and difference-in-differences
7. Binary dependent variable and/or time series analysis (time permitting)

### 4 Prerequisites

ECON120C is the sequel to ECON120B. You are expected to have a thorough grasp of the material covered in that course; namely, the linear regression model. In addition, you are expected to be familiar with basic statistics and probability, and to have mastered single and multivariable calculus. If you did not learn or do not remember the material covered in the required MATH10 or MATH20 sequence, you will find this course *extremely difficult*.

### 5 Textbook

The textbook for this class is *Introduction to Econometrics* by James Stock and Mark Watson. The book will be available as an eBook through Canvas. Note that the lectures will also cover additional material not found in the textbook.

Your digital course materials are provided by the UC San Diego Bookstore through Canvas and are free for the first two weeks of classes. After two weeks, your student account will be charged a special reduced price unless you opt out. If you decide to opt out you must complete the process by **January 16th, 2021** and you will be responsible for sourcing the materials elsewhere.

For any questions about billing please contact [textbooks@ucsd.edu](mailto:textbooks@ucsd.edu).

For any questions about using your eBook please reference [RedShelf Solve](#).

To opt-out:

- Click the RedShelf link in Canvas
- Click View Course Materials
- Scroll down to the gray opt-out button and follow the prompts to opt out.

You will have until **Saturday, January 16th, 2021** to complete this process and you will be responsible for getting access to the materials elsewhere.

## 6 Econometrics video handbook (EVH)

- You will have access to the Econometrics Video Handbook (EVH) through Canvas. The EVH contains a set of videos on key concepts that we discuss in 120C, and also allows you to review the material discussed in 120A and 120B.
- Note: not all EVH videos are directly useful and relevant for 120C.

## 7 Software

You will have to use the statistical software package STATA to solve assignments. You can download STATA via Canvas.

## 8 Webpage

All the material will be available on Canvas.

## 9 Questions

To improve fairness, quality, and efficiency, we will strictly enforce the following policy regarding questions related to the course material:

- We will **not** answer any questions related to the course material via email.
- We are available for questions during and after class, during office hours, and discussion sessions.
- There is an online discussion board on Canvas where you can post all your questions. We will check the discussion board regularly and answer your questions.

## 10 Assessment

- The overall course grade will be based on a weighted average of your grades in the assessments described below.
- There will be no make-up exams. The exception is absence from the final exam for medical reasons, in which case a doctors certificate is required.
- If you miss the midterm for a verifiable medical/legal/sports reason, I will increase the contribution of the final to 60%. Failure to notify me promptly that you must miss the midterm will result in a zero grade for the midterm. Unexcused absences will also result in a zero.

### 10.1 2 Stata assignments (10% each, 20% in total)

- There will be two graded Stata assignment. The Stata assignments will be lightly graded on three scales: 0%, 50%, and 100%. If your do-file does not run, we will subtract 25%.
- If you submit your Stata assignment too late, there will be a late submission penalty: we will subtract 25% for every 12hrs that you are submitting too late. There are no regrades for Stata assignments.
- We encourage group work. However, each student needs to submit their own version of the solution. We will use the Turnitin software to check for plagiarism and compare assignments.

### 10.2 8 weekly reflection notes (2.5% each, 20% in total)

There will be a short graded assignment after each week (**excluding the first and the last week**) that will be due on **Saturday at 11:59pm**. You will be expected to submit answers to the following three questions below after each week:

1. What were the most important 1-2 new things you learnt from the lecture and/or readings that you did not know before class?
2. What were 1-2 points discussed in lecture/readings that you are still confused/unclear about and would like some further clarification on?
3. What topics/questions would you like to learn more about or discuss more based on content covered in the lecture/readings?

**The reflection should be concise and not longer than 2/3 page (letter format, 12 points, double spacing).**

Reflection notes will be lightly graded as 100% (thoughtful response that engaged with the content of the lecture/readings), 50% (cursory responses that meet a minimum standard) and 0% (did not turn anything in). Each student needs to submit their own reflection. We will use the Turnitin software to check for plagiarism and compare assignments.

### 10.3 Midterm (20%)

There will be one midterm, carrying a weight of 20%. The midterm exam will be an online exam. It will be open books and notes. More details regarding the format and proctoring will be provided on Canvas.

**Date and time:** Saturday, February 6, 11:00am–12:50pm

## 10.4 Final (40%)

The cumulative final exam, covering all the material of the course, will have weight of 40%. The final exam will be an online exam. It will be open books and notes. More details regarding the format and proctoring will be provided on Canvas.

**Date and time:** Saturday, March 13, 7:00pm–9:59pm

## 11 Different time zones

If you are in a different time zone and need accommodations for the midterm and final exam, please let me know by email until **Saturday, January 9**. If you don't let me know by then, I cannot guarantee that I will be able to make accommodations.

## 12 Other

- If you have a documented disability, please email me your documentation 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 ([link](#)).
- Students who violate UCSD's academic integrity ([link](#)) policy will earn a failing grade for the course. In addition, the Council of Deans of Student Affairs will impose a disciplinary penalty.
- Addressing basic needs.
  - **Basic Needs:** Any student who has difficulty accessing sufficient food to eat every day, or who lacks a safe and stable place to live, and believes this may affect their academic performance, is encouraged to contact: [foodpantry@ucsd.edu](mailto:foodpantry@ucsd.edu), [basicneeds@ucsd.edu](mailto:basicneeds@ucsd.edu), or call 858-246-2632.
  - **Triton Food Pantry** is an emergency food relief program to provide food for students and fight food insecurity. You can get canned food, pasta, beans, and rice as well as fruit and vegetables at the pantry. [foodpantry@ucsd.edu](mailto:foodpantry@ucsd.edu)
  - **The Hub Basic Needs Center** coordinates basic needs resources vital to thrive as a student, which includes access to nutritious food, stable housing, and financial wellness resources. We provide basic needs services and resource referrals to registered UC San Diego students. Ask us about **CalFresh** food benefits! [basicneeds@ucsd.edu](mailto:basicneeds@ucsd.edu) 858-246-2632.