# Sabanci University

# Growth and Development, Fall 2021-2022

**Instructor: Ivan Lopez Cruz** 

**Office: 2120** 

Office Hours: Friday, 8 AM – 10 AM. Although you are welcome to show up unannounced.

For efficiency, it will be best to know you are coming ahead of time.

## **Description**

The course's central goal is to develop the student's ability to understand the most challenging matters holding back economic growth and development across the globe and their potential solutions. To that end, we will examine the root causes of socioeconomic backwardness and the government initiatives that have coped with them. At the same time, we will explore the underpinnings of causal inference to discern what public programs are better suited to palliate poverty and its most pressing markers. For example, we will discuss how to fight against malnutrition, environmental damage, crime and violence, and unsatisfactory health conditions.

#### **Class Information**

Ours will be an in-person course, where we will record attendance in every class. However, exceptionally wise, I will post pre-recorded videos that will replace a regular lecture. On these rare occasions, I will inform you with anticipation through the announcements section on SUCOURSE, which will serve as the class' website hosting notes, homework assignments, and related materials.

## **Evaluation**

I will assign each student to a workgroup in the first week of classes. Such groups will remain collaborating throughout the semester on a quantitative guided project whose outcomes will be the raw material for:

- (1) A final presentation to take place in the last two weeks of the fall (30 %).
- (2) A text describing your findings and conclusions (30%).

Additionally, you will solve a few homework sets individually. Although you are welcome to collaborate with your classmates in working through the latter, the submission must be individual (30%).<sup>2</sup> Finally, students' participation and attendance will account for 10% of your grade.

## **Failing to present your project:**

• If missing your presentation results from illness, you must hand in a formal doctor's note from a hospital. (A doctor's note taken from a doctor's private practice does not count as formal.) The university health service must verify the doctor's prescription in

<sup>&</sup>lt;sup>1</sup> Follow the homework assignments structure when writing your final report.

<sup>&</sup>lt;sup>2</sup> A significant fraction of the grade will be put on effort and not so much on the precise estimates you get.

all instances. Therefore, you should submit the doctor's note to the Health Center timely. Failing to present your work without any valid documented reason will result in a zero for it.

- Suppose you experience any technical problem with your internet connection during the project presentation. In that case, you must send me ASAP evidence showing the technical issue (a screenshot displaying what the problem was).
- Suppose you miss your presentation altogether. However, you presented a valid documented reason (as per above). In that case, you can recuperate the lost points via an IN PERSON, comprehensive, 1.5 hours long makeup exam on TBA. This Exam's weight will match the grade percentage you have missed. Finally, note that it will evaluate all the topics we cover before TBA; therefore, it will be very hard.

## **Further details**

<u>Textbook And Readings</u>: We do not have a specific book for this class since the array of topics we will cover comes from too many sources. However, the following list provides useful references:

Pearl J. Glymour M. & Jewell N. P. (2016). Causal inference in statistics: a primer. John Wiley & Sons.

Banerjee A. V. & Duflo E. (2020). Good economics for hard times: better answers to our biggest problems. Penguin Books.

Acemoglu D. & Robinson J. A. (20132012). Why nations fail: the origins of power prosperity and poverty (Pbk.). Crown Business.

Nick H., The Effect: An Introduction to Research Design and Causality. Available at: https://theeffectbook.net/index.html

### Getting started:

IMPORTANT: Please get a student account ASAP at <a href="https://www.core-econ.org/">https://www.core-econ.org/</a>. Then, go to <a href="https://www.core-econ.org/doing-economics/">https://www.core-econ.org/doing-economics/</a> and start working on the first empirical project, "Measuring Climate Change" (select the option working in R). This material will guide you through the basics of the programming language R, which you will use intensively during this term. Additionally, I encourage you to have a look at the following material:

https://www.youtube.com/watch?v=\_V8eKsto3Ug: a thorough introduction to R. Watch everything up to "Entering Data"

https://www.youtube.com/watch?v=jWjqLW-u3hc: Introduction to the package "DPLYR" for data manipulation.

https://mgimond.github.io/ES218/Week03a.html: I strongly encourage you to review Manuel Gimond's material on DPLYR.

<u>GRADING SCALE</u>: You will have weighted scores at the end of the semester, adding up to 100 points or less.

### **Course Contents**

## Theoretical background:

### Discussion section:

- 1) Growth before the 20<sup>th</sup> century.
- 2) Institutional economics.
- 3) The new comparative economics.
- 4) Do institutions cause growth?

# Empirical section:

- 1) Get acquainted with R.
- 2) Probability and statistics review.
- 3) What is causal inference.

# Policy evaluation:

#### Discussion section:

- 1) Inequality and Social Mobility
- 2) Education
- 3) Discrimination and Criminal Justice
- 4) Health and Climate Change
- 5) Tax Policy
- 6) Institutional Development

# **Empirical Section:**

- 1) Potential Outcomes Model.
- 2) Graphical Models.
- 3) Randomized Experiments.
- 4) Estimation and Unobserved confounding.
- 5) Instrumental variables, regression discontinuity, and difference-in-differences.
- 6) Synthetic Controls.

# Elements of the economics of conflict:

- 1) Private establishment of property rights.
- 2) Equilibrium institutions.
- 3) Political regimes.

NOTE: We may not have time to cover all the above topics. Nevertheless, I will try my best to do so.

## **LETTER GRADES**

A A- B+ B B- C+ C C- D+ D F

90-89-84-79-74-69-64-59-54-49-100 75 70 60 85 80 65 55 50 45 0-39