# ECO-2400: Econometrics
# Ashoka University

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*Please note that this syllabus is provisional and you should expect some changes to the structure of assignments. The coursework remains the same.*

This is a standard introductory econometrics course for undergraduates pursuing a major or an interdisciplinary major in economics. Through this course, we will understand how to infer economic relationships from data. We will learn a number of tools economists use to analyse data, and apply these tools to datasets using Stata.

Students must have a basic understanding of statistics and mathematical tools for economists. As such, students should have completed the Mathematics and Statistics courses offered by the Economics department.

## 1   Class timings

Lecture timings:
ECO 2400-3: Mondays and Wednesdays 1010 in AC 04 009.
ECO 2400-4: Mondays and Wednesdays 1500 in AC 04 009.

Office hours:
Office hours will be held on Mondays from 12-2. If you cannot make this time, email me and we will organise another.

Teaching assistant:
Monika Yadav is the teaching fellow assigned to this course. She will announce her office hours/DS schedule in due course. You can write to her at *monika.yadav_tf@ashoka.edu.in*. Please cc her in all course-related emails to me.

## 2   Required materials

The core text for this course is Jeffrey Wooldridge's "Introductory Econometrics - A Modern Approach". Any edition will do, though I will reference the chapters from 5th edition (the 4th edition is very similar). We will complete Section I on Regression Analysis with cross-sectional data (Chapters 2-9) and parts of Chapter 13 (time permitting).

We will also use Stata for data applications, so please make sure you have access via the Ashoka licence.

# 3  Course Requirements

## 3.1  Class participation (5%)

At the very least, you are expected to show up to class, listen attentively, and stay off your phones. Students who actively participate in classroom discussions will get credit for doing so under this component of the total grade. Students on their phones and laptops during class will lose credit here.

## 3.2  Take-home assignments (25%)

We will have 3 take-home assignments, which will be open-book but must be completed individually, and submitted by the deadline. We will drop the lowest of these three grades. Late submissions will be penalised by a grade cut for every day that the assignment is late. However, no further submissions will be allowed after the answers are discussed in class.

## 3.3  In-class assignments (35%)

We will have 3 in-class assignments which will be approx 30-40 minutes long. These will be pen-and-paper assignments that will test your ability to interpret the results of regressions. We will drop the lowest of these three grades. There will be no make-up assignments.

## 3.4  Final exam (35%)

This will be a 90 minute test that will take place at the end of the course.

There will be no make-up assignments or finals. If you miss more than one take-home assignment or in-class assignment, and have a legitimate reason for doing so (illness, injury, death), you can write to me and we will work out an accommodation.

The percentage to letter grade conversion will most likely follow the standard Ashoka CGPA-percentage band relationship (i.e. 90 and above is an A, 85-90 is an A-, 80-85 is a B+, and so on).

# 4  Attendance policy

I do not take attendance so you do not need to write to me in case you miss a class.

# 5  Academic Integrity

As members of the Ashoka community, you are expected to understand and follow the principles of academic integrity. There is zero tolerance in this course for cheating, plagiarism, and any other forms of academic dishonesty. You must make your sources entirely and transparently clear. If your work is found to have deviated from the standards of academic integrity, the text (whether written, oral, visual or otherwise) in question will be immediately and automatically failed. The Office of Academic Affairs will be notified of the incident, and your case will be taken up.

# 6  Laptop and cellphone policy

You must bring your charged laptops to class but you are only permitted to use them during data analysis. I will ask you to put them away when we are not doing any data

work. If I see either your laptop or your cellphone on the table during the lecture, I will ask you to put them away.

# 7 Topics covered

We will cover the following topics:

1. Review of statistics (random variables, probability distributions, sampling, estimation, hypothesis testing)

2. Simple regression model (estimation and inference)

3. Multiple regression model (estimation, inference)

4. Dummy variables in a regression model

5. An introduction to panel data

# 8 Important dates

Take home assignments due: Feb 12, Feb 26, March 5
   In-class assignments: March 22, April 5, April 19
   Final exam: May 3