

ECON 873: Micro-Econometrics

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Instructor: Saraswata Chaudhuri
Email: saraswata_chaudhuri@unc.edu
Office: Gardner 300 B
Office Hours: TBA

Lecture Times: MW 1:00 – 2:15

Lecture Location: Gardner 309

Office Hours: MW TBA, Gardner 300B

Prerequisite: ECON 770, 771 and 870. Familiarity with Stata and Matlab will be helpful.

Course Objective and Description:

ECON 873 is a course on methods that are commonly used in various fields of Economics such as Labor, Development, Growth, Health, Industrial Organization, etc. The methods to be discussed in this class can in general be applied to cases where you have observations for a single period or multiple periods on a large number of units (individuals, firms, countries, etc.). We will focus mainly on the methods, i.e., what is the method, why it works, how it works. The discussions will be superficial (i.e., no proofs) in some sense because the primary purpose of this course is to get you familiar with a variety of methods. We will use some relatively well known datasets for applications of these methods.

What we will not discuss are the following: (1) the theoretical foundation for all these methods, because that was discussed in my ECON 870 class; (2) novel application, because you can learn it better from other field-specific courses.

Grading Policy:

The best way to learn methods is to apply them. So this course will be assignment intensive. Assignments are posted below. They are due exactly one week after the concerned topic is covered in the lecture. Please feel free to work as a group for these assignments. However, please turn in your own answers.

At the same time, I would expect all the students to write a paper on any topic of their choice. In this paper you would apply the methods learnt in this class to real life data. I would expect you to come up with a research question of your choice, think of an appropriate dataset, and then apply these methods. You can expect my help with the last part. Each student will give 3 presentations on the project/paper during the entire semester. The first presentation will discuss the research question and the dataset. The second presentation will be on the results, their novelty, etc. These two presentations are supposed to help you to make progress with your paper. The third presentation will be the final one where you will formally present the final version of your entire paper. Details about the paper will be discussed in the class.

Your grades will be based on the weekly assignments and the paper (including your presentations). 40% of the final grade will be based on the assignments, 20% on your presentations, and 40% on the actual paper.

Textbook:

“Microeconometrics” by Colin Cameron and Pravin Trivedi. I strongly recommend that you solve all the exercises in this book. Your homework assignments are based on these exercises. Online resources for the book are available from the website <http://cameron.econ.ucdavis.edu/mmabook/mma.html>.

“Microeconometrics Using STATA” by Colin Cameron and Pravin Trivedi is a useful supplement for this book.

“Econometric Analysis of Cross Section and Panel Data” by Jeffrey Wooldridge is also an excellent reference. In addition, you will find the [lecture notes](#) by Guido Imbens and Jeffrey Wooldridge from their popular lecture series “What is New in Econometrics” very useful.

Course Outline:

Week: Lectures	Chapter: Topic	Assignments from the Text
1: Jan 8, Jan 13	Ch 14: Binary Outcome Models	14-3, 14-4, 14-5, 14-6
2: Jan 15, Jan 22	Ch 15: Multinomial Models	15-2, 15-3, 15-4
3: Jan 27, Jan 29	Ch 16: Tobit & Selection Models	16-2, 16-3, 16-5
4: Feb 3, Feb 5	Ch 17: Transition Data: Survival Analysis	17-2, 17-3
5: Feb 10, Feb 12	Ch 18: Mixture Models & Unobserved Heterogeneity	18-3, 18-4
6: Feb 18, Feb 20	Ch 19: Models of Multiple Hazards	19-3, 19-4
7: Feb 24, Feb 26	Ch 20: Models of Count Data	20-4, 20-6
8: Mar 3, Mar 5	Ch 21: Linear Panel Models: Basics	21-3, 21-4
9: Mar 10, Mar 12	Spring break	
10: Mar 17, Mar 19	Ch 22: Linear Panel Models: Extensions	22-2, 22-5
11: Mar 24, Mar 26	Ch 23: Nonlinear Panel Models	23-2, 23-3
12: Mar 31, Apr 2	Ch 24: Stratified and Clustered Samples	24-2, 24-4
13: Apr 7, Apr 9	Ch 25: Treatment Evaluation	25-5
14: Apr 14, Apr 16	Ch 26: Measurement Error Models	26-4
15: Apr 21, Apr 23	Ch 27: Missing Data & Imputation	27-2