

## Core 2: Econometrics models for micro data

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The course is intended to introduce students to some standard methods specifically designed for the analysis of particular types of microeconomic data. For each method the general theoretical background will be provided, followed by the critical discussion of one or more applied papers.

### Topic 1 (3 hours)

*Introduction:* Content of this course.

*Binary choices:* Linear probability models; Non-linear probability models; Probit, logit; Maximum Likelihood methods.

*Wooldridge, Chapter 15*

### Topic 2 (4.5 hours)

*Multiple choices:* Ordered probit models, Multinomial logit models; Independence of irrelevant alternatives.

*Wooldridge, Chapter 15*

### Topic 3 (3 hours)

*Censored and selection models:* Tobit models, Censored models, Selection models

*Wooldridge, Chapter 16*

### Topic 4 (3 hours)

*Panel data:* Fixed effects models; Random effects models; Conditional logit model, Difference in differences

*Wooldridge, Chapter 10*

### Topic 5 (3 hours)

*Standard errors:* Clustering, Moulton factor, Introduction to basic methods of bootstrapping

*Angrist and Pischke, Chapter 8*

### Topic 6 (4.5 hours)

*Count data and duration models:* Poisson and negative binomial models, introduction to duration analysis

*Wooldridge, Chapters 19 and 20*

## **Exercise classes**

There will be 6 exercise classes

## **Teaching material**

- Jeffrey Wooldridge, *Econometric Analysis of Cross Section and Panel Data*. The MIT Press, 2001
- Joshua Angrist and Jorn-Steffen Pischke. *Mostly Harmless Econometrics. An Empiricist's Companion*. Princeton University Press, 2013.
- Lecture notes by the instructor.

## **Final exam and Grading**

There will be a final exam.