

Introductory Econometrics (Pré rentrée - Obligatoire pour les étudiants)

Description du contenu de l'enseignement :

1. Linear regression

- Simple linear regression
- OLS estimation
- Multiple linear regression
- Statistical inference

2. Problems with OLS estimation

- Normality of the error terms
- Homoskedasticity
- Zero-conditional mean assumption

3. Causality and bias

- Potential Outcomes and DAGs
- Omitted variable bias
- Selection on observable characteristics
- Unobservable characteristics
- Measurement error
- Simultaneity

Compétence à acquérir :

After completing this course, you will...

- ...have a good technical understanding of linear regression.
- ...know the most common sources of bias in linear regression.
- ...be able to explain how these biases affect the estimates from a regression.
- ...be able to assess the potential for bias in a research question and whether an empirical study plausibly addresses this bias.

Mode de contrôle des connaissances :

The final assessment of this course is a written exam (100% of the final grade).

Bibliographie, lectures recommandées :

The course primarily follows the presentation in Wooldridge's "Introductory Econometrics", with some material added in later sections of the course. Reading the following textbooks is not required, but can help for further understanding of the material.

•Recommended textbooks:

- Wooldridge: Introductory Econometrics (Chapter 1-9)
- Angrist & Pischke: Mostly Harmless Econometrics (Chapter 2)
- Cunningham: Causal Inference – The Mixtape
(free online version at <https://mixtape.scunning.com/>)

- Huntington-Klein: The Effect
(free online version at <https://theeffectbook.net/>)

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