

Introduction to econometrics

**ECTS** : 3

**Description du contenu de l'enseignement :**

Introduction : issues and problems of financial econometrics ; Simple and multiple regression models ; Statistical inference and regression quality ; Hypotheses and tests of the hypotheses of the linear regression model ; Applications : linear regression models in finance.

**Compétence à acquérir :**

This course is an introduction and/or refresher course in Econometrics that focuses on techniques for estimating regression models, on problems commonly encountered in estimating such models, and on interpreting the estimates. The goal is to provide participants with the basic skills and knowledge necessary to undertake empirical research and to prepare them to more advanced course in Econometrics for Finance. Gretl will be the econometric software used in the course (alternatively, Python or R can be used). If some theoretical aspects will be studied, the focus is more on the acquisition of a scientific empirical approach.

**Concretely, this course will allow students to**

- **keep a critical eye on econometrics results,**
- **acquire a method to answer economic and financial questions in a quantified manner**
- **to use this knowledge to carry out basics empirical studies in finance.**

**Bibliographie, lectures recommandées :**

- Adkins, L., 2018, [Using Gretl for Principles of Econometrics](#), 5th Edition, Version 1.0, [http:](http://)
- Brooks C., 2019, *Introductory Econometrics for Finance*, 4th Edition, Cambridge University Press, 724 pages
- Carter Hill R., W. E. Griffiths and G.C. Lim, 2018, *Principles of Econometrics*, 5th Edition, John Wiley & Sons, 912 pages.

**Pre-requisites:**

- Anderson, D., D. Sweeney, T. Williams, J. Camm, and J. Cochran, 2019, *Statistics for Business & Economics*, 14th Edition, Cengage Learning, 1120 pages
- Jacques, J., 2018, *Mathematics for Economics and Business*, 9th Edition, Pearson, 752 pages;
- Le Fol, G., 2022, [A \(Very\) Short introduction to Gretl using scripts](#), Mimeo, 6 pages

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