UCLouvain

# lecge1316

*2023*

# Econometrics

| 5.00 credits | 30.0 h + 15.0 h | Q1 |
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| Teacher(s) | Beine Michel (compensates Dejemeppe Muriel) ;Dejemeppe Muriel ; |
| Language : | French |
| Place of the course | Louvain-la-Neuve |
| Prerequisites | *The prerequisite(s) for this Teaching Unit (Unité d'enseignement – UE) for the programmes/courses that offer this Teaching Unit are specified at the end of this sheet.* |
| Main themes | The course covers the basic instruments of econometric analysis at an intermediate (for subjects introduced in previous courses) or introductory level (for new subjects). Examples of how these methods are applied to management problems are given. An important aspect of the course is learning econometric modelling: students are taught how to take a theoretical, abstract and general relation between variables and apply it to the formulation and estimation of a particular concrete form that relation might take in a given context. They will also be introduced to econometric software during the course. |
| Learning outcomes | **At the end of this learning unit, the student is able to :**<br>1 This course is intended to give students a background in the theory and practice of Econometrics. The emphasis is on understanding the methods and their relevance to the solution of management problems. By the end of the course, students should be able to use these methods for simple question solving and to interpret the results of an econometric analysis while being aware of the limitations of the methods. |
| Evaluation methods | The exam consists in a written exam in English on 20 points. The exam can be taken in January 2021 and/or August 2021.<br>*If the health situation deteriorates, this evaluation method may evolve into an exclusively online evaluation.* |
| Teaching methods | The non-French speaking students are expected to learn the course content by themselves based on the reference book in English (see below). For these students, two sessions of practical work with STATA (in English) are organized in a computer room or online during the quarter. Students are invited to learn the STATA software online at the beginning of the quarter. |
| Content | **Regression analysis with cross-sectional data**<br>Chapter 1. General introduction<br>Chapter 2. The simple regression model<br>Chapter 3. Multiple Regression Analysis: Estimation<br>Chapter 4. Multiple Regression Analysis: Inference<br>Chapter 5. Multiple Regression Analysis: OLS Asymptotics<br>Chapter 6. Multiple Regression Analysis: Advanced issues<br>Chapter 7. Multiple Regression Analysis with qualitative information<br>Chapter 8. Multiple Regression Analysis: Heteroscedasticity<br>Chapter 9. Multiple Regression Analysis: Specification and data issues<br>+ Introduction to the statistical software STATA |
| Inline resources | See Moodle UCL (http://moodleucl.uclouvain.be/). |
| Bibliography | Livre de référence (reference book) :<br>Jeffrey Wooldridge (2016), *Introductory Econometrics: A Modern Approach*, 6th Edition, Cengage Learning. |
| Other infos | Prerequisites:<br>1) Mathematics in economics and management<br>2) Statistics in economocmis and management |
| Faculty or entity in charge | ESPO |

## Programmes containing this learning unit (UE)

| Program title | Acronym | Credits | Prerequisite | Learning outcomes |
|---|---|---|---|---|
| Minor in Economics | MINECON | 5 | | |
| Bachelor in Philosophy, Politics and Economics | PPE1BA | 5 | LECGE1112 AND LECGE1114 | |
| Bachelor in Economics and Management | ECGE1BA | 5 | LECGE1112 AND LECGE1114 | |
| Mineure en statistique et science des données | MINDATA | 5 | | |
| Master [120] in Agriculture and Bio-industries | SAIV2M | 5 | | |