





In view of the health context linked to the spread of the coronavirus, the methods of organisation and evaluation of the learning units could be adapted in different situations; these possible new methods have been - or will be - communicated by the teachers to the students.

5 credits

30.0 h + 15.0 h

Q2

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| Teacher(s) | Van Bellegem Sébastien ; |
| Language : | French |
| Place of the course | Louvain-la-Neuve |
| Prerequisites | <i>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.</i> |
| 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. |
| Aims | <p>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.</p> <p>-----</p> <p><i>The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".</i></p> |
| Content | Course content: linear regression and the ordinary least squares method (OLS). Properties of OLS. Restriction test. Use of dummy variables. Forecasting. Heteroscedasticity and autocorrelation. The generalised least squares method and its properties. Dynamic models and forecasting. Analysis of discrete and qualitative data (per maximum of probability): discrete choice models (binomial and multinomial logit), count data model (Poisson regression). Introduction to panel data. Method: The course is organised in such a way as to guide students in their learning (including software-based learning). Students prepare each course through preliminary reading, informed by questions. The purpose of the lectures is to discuss what the students have learnt in the reading and address these questions, and also to deal with a range of other questions and summarise the subject matter. |
| Other infos | Support : J.M. Wooldridge (2002). Introductory Econometrics. Thomson. South Western. |
| Faculty or entity in charge | ESPO |

| Programmes containing this learning unit (UE) | | | | |
|------------------------------------------------------|---------------------------|---------|---------------------------|-------------------------------------------------------------------------------------|
| Program title | Acronym | Credits | Prerequisite | Aims |
| Master [120] in Agricultural Bioengineering | BIRA2M | 5 | |  |
| Bachelor : Business Engineering | INGE1BA | 5 | LINGE1113 |  |
| Master [120] in Agriculture and Bio-industries | SAIV2M | 5 | |  |
| Additional module in Mathematics | LMATH100P | 5 | |  |