lecge1337
2019

Advanced mathematics and foundations of econometrics

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

Teacher(s)	Lefèvre Françoise ;Lefèvre Françoise (compensates Van Bellegem Sébastien) ;Van Bellegem Sébastien ;
Language :	French
Place of the course	Louvain-la-Neuve
Aims	*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".*
Evaluation methods	**Due to the COVID-19 crisis, the information in this section is particularly likely to change.** Session 1 : • Part I : case study (/6 points) • Part II : continuous assessment (/14 points) • mean of 5 notes obtained during the 5 latest courses Session 2 : individual written evaluation
Teaching methods	**Due to the COVID-19 crisis, the information in this section is particularly likely to change.** • Lectures • Case study • Exercices by groups
Content	Contents : • Modelisation in management • Simple linear regression by ordinary least squares (OLS) : estimation and inference • Multiple linear regression (MLR) by OLS : estimation and inference • MLR with qualitative information • Specification, selection, stability and prevision in MLR • The normality assumption of the MLR model • Heteroscedasticity • Multicolinearity.
Inline resources	Available on Moodle
Bibliography	• Syllabus et forums sur la plateforme Moodle (lecture notes and forums on the platform (Moodle). Ouvrages de références (à titre d'exemple) : • WOOLDRIDGE, J. (2013). Introductory Econometrics: A Modern Approach, 3th ed. South Western College Publishing., traduction française (2018) Introduction à l'économétrie : une approche moderne. De Boeck Supérieur. • GREENE W.H. (2002). Econometric Analysis, Prentice Hall. • JOHNSTON J. & DINARDO J. (1999). Méthodes Econométriques, Economica, traduction de JOHNSTON J. & DINARDO J. (1997). Econometric Methods, 2th ed. Mc GrawHill.
Faculty or entity in charge	ESPO