

Teacher(s)	Lefèvre Françoise ;
Language :	French
Place of the course	Louvain-la-Neuve
Learning outcomes	
Evaluation methods	<p>Session 1 : Continuous assessment</p> <ul style="list-style-type: none"> • Date : 3 tests organised during the certain class sessions and/or the 7th week of the Q2 (dates communicated at the beginning of the course) • Type of assessment : individual written test (with personal notes, syllabus, statistical tables and a simple pocket calculator - non-graphical and without full alphanumeric keyboard) • Comments : the final score is the average of the 3 scores obtained in the 3 tests. <p>Session 2 : Individual written exam with authorised documents : the syllabus completed with your ouw courses notes (no photocopies) and unannotated statistical tables, plus a simple pocket calculator (non graphic and without full alphanumeric keyboard).</p> <p>In the event of a change in health conditions towards a code orange or red, the evaluation can be organized remotely via a computer software provided to teachers and students by the university institution. The technical conditions of this evaluation related to the software will be specified to you at the moment the state authorities will have decided the sanitary conditions for the university institutions in case of evolution.</p>
Teaching methods	<p>Due to the COVID-19 crisis, the information in this section is particularly subject to change.</p> <ul style="list-style-type: none"> - Lectures. - Exercises associated with the course organised by student sub-groups. <p>The lecture introduces concepts and techniques using examples with an emphasis on econometric modelling. The practical work pursues this objective by proposing concrete problems, exercises centred on the interpretation of analyses by MLR and case studies based on real data with statistical software.</p> <p>Teaching is organized on-site, but could be remotely in the event of changes in health conditions.</p>
Content	<p>The course covers the basic tools of econometrics at an introductory level, including the mathematical foundations necessary to understand these tools. Examples of the application of the methods to economic and management problems are included.</p> <p>An important aspect of the course is the learning of econometric modelling: how to move from a theoretical, abstract and general relationship between economic variables to the formulation and estimation of a particular form of this relationship in a given context. The learning of econometric software is included in the course.</p> <p>Contents :</p> <ul style="list-style-type: none"> • 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 • Multicollinearity.
Inline resources	Available on Moodle
Bibliography	<ul style="list-style-type: none"> • Supports de prise de notes (transparents) et forums sur la plateforme Moodle (slides and forums on the platform (Moodle). <p>Ouvrages de références (à titre d'exemple) :</p> <ul style="list-style-type: none"> • 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.

<p>Other infos</p>	<p>This teaching takes place during the first 6 weeks of the second quadrimester.</p> <p>This teaching unit contributes to the development and acquisition of the following skills</p> <ul style="list-style-type: none"> - Mastering knowledge: Activate and apply knowledge appropriately when faced with a problem. - Apply a scientific approach: To conduct a clear and structured analytical reasoning by applying and, if necessary, adapting scientifically based conceptual frameworks and models to describe and analyse a concrete problem. <p>At the end of this unit, the student will be able to :</p> <ul style="list-style-type: none"> - in terms of knowledge to : <ol style="list-style-type: none"> 1. apply the principles and methods of multiple regression to the estimation of linear or linearizable models with one or more explanatory variables, 2. deal with statistical inference problems in a rigorous manner, without excessive formalism; - in terms of know-how, to : <ol style="list-style-type: none"> 1. ask questions that are relevant from a managerial point of view, about a proposed case and the characteristics of the data available, 2. choose the appropriate statistical approach and apply it, 3. providing methodologically correct answers to the problem posed by rigorous interpretation of the results from both a statistical and a managerial point of view.
<p>Faculty or entity in charge</p>	<p>ESPO</p>