

Microeconometrics (F000929)

Due to Covid 19, the education and evaluation methods may vary from the information displayed in the schedules and course details. Any changes will be communicated on Ufora.

Course size	<i>(nominal values; actual values may depend on programme)</i>		
Credits 3.0	Study time 90 h	Contact hrs	22.5 h

Course offerings in academic year 2021-2022

A (semester 2)	English	Gent
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Lecturers in academic year 2021-2022

Offered in the following programmes in 2021-2022	crdts	offering
Bachelor of Science in Economics	3	A
Master of Science in Complementary Studies in Economics	3	A
Exchange programme in Economics and Business Administration	3	A

Teaching languages

English

Keywords

Limited dependent variable models; panel data models; (quasi-)experimental designs

Position of the course

The course aims at broadening the student's knowledge beyond the econometric techniques introduced in a basic econometrics course to microeconometrics and panel data models. The focus is on being able to apply the econometric techniques and correctly interpret the results.

Contents

- Topic 1: Limited dependent variable models
 - Logit, probit and tobit models
 - Poisson and negative binomial regression
- Topic 2: Panel data models
 - Fixed and random effects estimator
 - Hausman test
- Topic 3: Experimental and quasi-experimental designs:
 - Randomized controlled trials
 - Difference-in-difference estimation
 - Propensity score matching

Initial competences

Final objectives from a basic course in econometrics, including (i) basic concepts of econometric analysis (bias, consistency, variance, efficiency, distribution); (ii) inference (type I and II errors, size, power, p-value); (iii) OLS estimation and its properties (under the Gauss-Markov assumptions, implication of relaxing these assumptions); (iv) GLS estimation and its properties (in case of heteroskedasticity and/or autocorrelation); (v) endogeneity and IV estimation (implications, validity of instrumental variables).

Final competences

- 1 have a thorough knowledge of limited dependent variable models; panel data models; experimental and quasi-experimental designs
- 2 be able to define a relevant econometric model; choose the appropriate econometric method; evaluate its statistical properties; use R econometric software to carry out estimation and tests; correctly interpret the estimation and test results

Conditions for credit contract

Access to this course unit via a credit contract is determined after successful competences assessment

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Group work, lecture, seminar: coached exercises

Extra information on the teaching methods

Ex cathedra theoretical lectures.

During the group assignment and tutorials students apply the theory to real problems.

Lectures and tutorials are all in English.

Learning materials and price

Slides and other material will be made available online (free of charge, excepted your own printing cost)

References

- Marno Verbeek, A Guide to Modern Econometrics, John Wiley & Sons, 2012.
- Jeffrey M. Wooldridge, Econometric Analysis of Cross-Section and Panel Data.

Course content-related study coaching

Concerning the content of the course, students can appeal to the support of the lecturer and the assistants.

Study material (slides, assignments, R support) are available on Ufora.

Evaluation methods

end-of-term evaluation and continuous assessment

Examination methods in case of periodic evaluation during the first examination period

Written examination

Examination methods in case of periodic evaluation during the second examination period

Written examination

Examination methods in case of permanent evaluation

Assignment, peer assessment

Possibilities of retake in case of permanent evaluation

examination during the second examination period is not possible

Extra information on the examination methods

Written open book exam during which the knowledge of the econometric techniques discussed during this course and the ability to use these techniques to analyse real problems are evaluated.

Calculation of the examination mark

Exam (written, 70%)

Assignments + presentation + discussion (30%)