



## Syllabus – PhD in Management

Anno Offerta / Academic Year	2024
Corso di Studio / PhD	PhD in Management
Insegnamento/Modulo	Econometrics II
Periodo Didattico /Term	
Anno Corso / Year of the course	2025
Settore	
CFU	
Ore Attività Frontali / Total Hrs	

Tipo Testo	Testo in Italiano/Inglese
OBIETTIVI/LEARNING GOALS	<p>Conoscenza e comprensione/ knowledge and understanding: Upon completing this course students should be able to:</p> <ul style="list-style-type: none"> <li>• Show insights on core Stata approaches to econometric analysis.</li> <li>• Display basic knowledge of Stata programming and why programming may be a better option than pointing a clicking to the econometric investigation.</li> <li>• Express an understanding of differences between the taught models</li> <li>• Debate the limitation of econometric modelling in general and of the taught models</li> </ul> <p>Capacità di applicare conoscenza e comprensione/ Applying knowledge and understanding:</p> <ul style="list-style-type: none"> <li>• Apply key econometric models to real cross-sectional data.</li> <li>• Understanding of the type of model to apply given characteristics of the data and what the researcher wishes to achieve.</li> <li>• Interpretation of taught econometric models</li> <li>• Analytically assess and adjust models given potential shortcomings.</li> </ul>
RISULTATI DI APPRENDIMENTO ATTESI/ INTENDED LEARNING OUTCOMES	<p>Autonomia di giudizio/ making judgements:</p> <ul style="list-style-type: none"> <li>• Assess econometric outcomes and results.</li> <li>• Judge the validity of applied econometric models.</li> <li>• Judging the econometric models of others – e.g. reviewing econometric work for journals</li> <li>• Evaluating econometric outcomes through marginal effects and when that is particularly appropriate.</li> </ul> <p>Abilità comunicative/ communication skills:</p> <ul style="list-style-type: none"> <li>• The ability to present econometric evidence verbally.</li> <li>• The ability to present econometric evidence in written form.</li> <li>• Identify key econometric statistics given the taught model that should be communicated in papers and other research outlets.</li> </ul> <p>Capacità di apprendimento/ learning skills:</p> <ul style="list-style-type: none"> <li>• The capability to run and carry out reliable and sensible econometric studies.</li> <li>• The capacity to identify the major potential shortcoming of various model apriori running an analysis against a given dataset.</li> <li>• Being able to account for the reasons behind the taught models and their applicability.</li> <li>• Master at a reasonable level the vocabulary of applied econometric analysis.</li> </ul>
PREREQUISITI / ENTRY REQUIREMENTS	<ul style="list-style-type: none"> <li>• Completed a basic course on econometrics</li> <li>• Completed a course including regression techniques and specifically OLS regression</li> </ul>
CONTENUTI DEL CORSO / COURSE CONTENTS	<p>Session 1: Logits, Ordered Logit and Multinomial Logits</p> <p>Readings:</p> <ul style="list-style-type: none"> <li>• Long, J. S. &amp; Freese, J. (2006), <b>Regressions Models for Categorical Dependent Variables Using Stata</b>, 2nd Edition, Stata Press chapter 6 &amp; pages 223-272</li> </ul>



- Reichstein, T. & Salter, A. J. (2006), Investigating the Sources of Process Innovation among the UK Manufacturing Firms, *Industrial and Corporate Change*, 15(4), pp. 653-682

Session 2: Exercises in Logits, Ordered Logits, and Multinomial Logits

Session 3: Count Models and Zero-Inflated Count Models

Readings:

- Long, J. S. & Freese, J. (2006), **Regressions Models for Categorical Dependent Variables Using Stata**, 2nd Edition, Stata Press Chapter 6 & pages 349-381 & 394-415
- Wooldridge, J. M. (2009), **Introductory Econometrics - A Modern Approach**, International Student Edition, 4th Edition, South Western, pages 595-600

Session 4: Exercises in Count Models and Zero-Inflated Count Models

Session 5: Attrition and Selection Models

Readings

- Wooldridge, J. M. (2009), **Introductory Econometrics - A Modern Approach**, International Student Edition, 4th Edition, South Western, pages 606-613

Session 6: Exercises in Attrition and Selection Models

Session 7: Endogeneity and Instrumental Variables Regression

Readings

- Wooldridge, J. M. (2009), **Introductory Econometrics - A Modern Approach**, International Student Edition, 4th Edition, South Western, pages 506-520
- Guilhem, B. (2008), Controlling for Endogeneity with Instrumental Variables in Strategic Management Research, **Strategic Organization**, 6(3), pp. 285-327
- Hamilton, B. H. & Nickerson, J. A. (2003), Correcting for Endogeneity in Strategic Management Research, **Strategic Organization**, 1(1), pp. 51-78

Session 8: Exercises in Endogeneity and Instrumental Variables Regression

Session 9: Extensions and Other Consideration – Q&A Before Exam

Exam

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TESTI DI RIFERIMENTO /  
REFERENCE BOOKS

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METODOLOGIE  
DIDATTICHE/ TEACHING  
METHODS

- Formal theoretical foundation of taught regression techniques
  - Illustration with examples of studies using the taught techniques.
  - Exercises with real life and artificial datasets
  - Student presentations of solutions of exercises
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MODALITÀ DI VERIFICA E DI  
ACCERTAMENTO  
DELL'APPRENDIMENTO/  
DETAILED DESCRIPTION OF  
ASSESSMENT METHOD

Students take a four-hour written exam consisting of exercises mirrored in the exercises done during the course. The exam exercises may thus involve providing a hypothetical example where the student would use a specific regression technique and specified in the exam assignment, or it may encompass offering an econometric analysis of data provided for the exam. Students must run an econometric investigation which allow them to answer accompanying research questions. The hand-in of the exam is the investigation carried out in STATA and an accompanying text explaining their choices and interpretation of results.)

**Evaluation criteria of assignment** – The Academic Grading System valid in US is used for the evaluation of the students: an ‘A’ grade requires deep reflections, critical insights, and effective analysis; a ‘B’ grade requires understanding of course materials, clear and logical thinking. Lower grades mean that students lack these requirements.

**Late assignment policy** – Students must appreciate assignment due dates as proper deadlines. Barring serious problems, late assignments will be marked down.

**Final Grades Releasing**– Final grades with specific feedback on attendance/participation and performance will be release to each student via email within one month from the due date of the Final Assignment.

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