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# INTRODUCTORY ECONOMETRICS FOR BUSINESS STUDIES

Period: a.y. 2024/25 - I sem.

**Class times** 

Instructor: Prof. Luisa Gagliardi Luisa.gagliardi@unibocconi.it

#### **Course description**

This course is designed to introduce students to the study of econometrics. It is structured such that students are stimulated to think about estimation approaches and methodological issues starting from the actual nature of the data they confront with. The scope of this approach is twofold. First, to make students familiar with the theoretical aspects associated with each estimation approach, second to make students able to apply such methods to real data and identify the best estimation approach for the specific research question(s) they want to address. To this scope, each class is paired with a practical session in which students will get familiar with applications of the revised methodologies and put their hands on the data.

#### **Course Material**

Classes will be based on selected papers and the following main textbook (downloadable online):

Wooldridge, J.M. (2012). Introductory Econometrics: A Modern Approach, Fifth Edition, South Western Cengage Learning

Practical sections will make use of the following manual (downloadable online): Cameron, A.C. and Trivedi, P.K (2009). Microeconometrics Using Stata, Stata Press



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## **Tentative list of topics**

<u>Class 1.</u> The scope of econometric analysis and the nature of econometric data. A primer on regression analysis. <u>Practice 1.</u> Exploring the nature of econometric data: types of data.

<u>Class 2.</u> Multiple Regression Analysis with Cross-Sectional Data. <u>Practice 2.</u> Basic regression analysis using Stata.

<u>Class 3.</u> Further issues in regression analysis: Specification and data issues, functional forms, interaction terms, control variables and binary regressors. <u>Practice 3.</u> Variables' construction and interpretation.

<u>Class 4.</u> Binary dependent variables. <u>Practice 4.</u> Logit, Probit and Linear Probability Model.

<u>Class 5.</u> Adding the time dimension: Pooling cross sections and panel data. <u>Practice 5.</u> Linear panel data models.

<u>Class 6.</u> Regression and Causality: Main issues and possible solutions. A focus on Instrumental Variables (IV). <u>Practice 6.</u> IV estimation in cross section and panel data.

### Assessment Methods.

Students' evaluation will be based on 2 in-class evaluation (60%), an individual project they will develop during the course (40%). Effective class participation includes class attendance and active engagement.

## Faculty Bio.

My research investigates the dynamic relationship between location characteristics and individual decision-making processes. Specifically, I am interested in understanding how individual decisions relate to the geography of production, innovation, and entrepreneurship, and how these connections impact individuals, organizations, and society. A second strand of my research focuses on diversity within organizations and across different spatial contexts.

My work has been featured in the Strategic Management Journal, Organization Science, the Journal of Economic Geography and Research Policy, among others. I serve on the Editorial Review Board of <u>Organization Science</u>.

