COURSE OF STUDY Laurea Triennale Economia e Commercio

ACADEMIC YEAR *2023-2024*

ACADEMIC SUBJECT PRINCIPLE OF ECONOMETRICS

| General information | |
|-----------------------------|-------------|
| Year of the course | 2023-2024 |
| Academic calendar (starting | I Semester |
| and ending date) | |
| Credits (CFU/ETCS): | 6 |
| SSD | SECS-P05 |
| Language | Italian |
| Mode of attendance | In presence |

| Professor/ Lecturer | |
|--------------------------------|--|
| Name and Surname | Stefania Basiglio, Raffaele Lagravinese |
| E-mail | Stefania.basiglio@uniba.it raffaele.lagravinese@uniba.it |
| Telephone | |
| Department and address | Dipartimento di Economia e Finanza, Largo Abbazia Santa Scolastica |
| Virtual room | |
| Office Hours (and modalities: | |
| e.g., by appointment, on line, | |
| etc.) | |

| Work schedule | | | |
|---------------|----------|---|--|
| Hours | | | |
| Total | Lectures | Hands-on (laboratory, workshops, working groups, seminars, field trips) | Out-of-class study hours/ Self-study hours |
| 150 | 42 | | 90 |
| CFU/ETCS | | | |
| 6 | | | |

| Learning Objectives | The objective of this course is to enable students to critically interpret economic data in order to derive useful information for understanding reality. The course follows both a theoretical and applied approach. |
|----------------------|---|
| | The theoretical approach introduces the statistical properties of some tools used by economists to analyze data. The applied approach involves students learning to manipulate and interpret economic data. The exercises will be carried out using free software (such as Gretl or R) to allow students to be self-sufficient in basic econometric analysis. |
| Course prerequisites | There are no prerequisites for this course; however, the fundamental contents of Microeconomics, Macroeconomics, Statistics I, and Statistics II courses make it easier to understand certain parts of the course. |

| Teaching strategie | |
|-------------------------------|---|
| Expected learning outcomes in | The course aims to provide students with knowledge of the basic concepts of |
| terms of | econometrics used for analyzing the economic system as a whole. |
| Syllabus | |

| Content knowledge | PART ONE Introduction and Review |
|-----------------------------|--|
| | Chapter 1 Economic Questions and Data |
| | Chapter 2 Review of Probability |
| | Chapter 3 Review of Statistics |
| | PART TWO Fundamentals of Regression Analysis |
| | Chapter 4 Linear Regression with One Regressor |
| | Chapter 5 Regression with a Single Regressor: Hypothesis Tests |
| | and Confidence Intervals |
| | Chapter 6 Linear Regression with Multiple Regressors |
| | Chapter 7 Hypothesis Tests and Confidence Intervals in Multiple Regression |
| | Chapter 8 Nonlinear Regression Functions |
| | Chapter 9 Assessing Studies Based on Multiple Regression |
| | PART THREE Further Topics in Regression Analysis |
| | Chapter 10 Regression with Panel Data |
| | Chapter 11 Regression with a Binary Dependent Variable |
| | Chapter 12 Instrumental Variables Regression |
| | Chapter 13 Experiments and Quasi-Experiments |
| | Chapter 14 Prediction with Many Regressors and Big Data |
| | PART FOUR Regression Analysis of Economic Time Series Data |
| | Chapter 15 Introduction to Time Series Regression and Forecasting |
| | Chapter 16 Estimation of Dynamic Causal Effects |
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| Texts and readings | Introduction to econometrics FOURTH EDITION |
| | James H. Stock • Mark W. Watson |
| Notes, additional materials | |
| Repository | Slides |

| Assessment | |
|---------------------------------|--------------|
| Assessment methods | Written exam |
| Assessment criteria | |
| Final exam and grading criteria | |
| Further information | |
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