



## APPLIED ECONOMICS AND ECONOMETRICS

Anno immatricolazione	2019/2020
Anno offerta	2020/2021
Normativa	DM270
SSD	SECS-P/01 (ECONOMIA POLITICA)
Dipartimento	DIPARTIMENTO DI SCIENZE ECONOMICHE E AZIENDALI
Corso di studio	ECONOMICS, FINANCE AND INTERNATIONAL INTEGRATION - ECONOMIA, FINANZA E INTEGRAZIONE INTERNAZIONALE
Curriculum	Industrial Organization and Market Regulation
Anno di corso	2°
Periodo didattico	Secondo Semestre (22/02/2021 - 22/05/2021)
Crediti	6
Ore	44 ore di attività frontale
Lingua insegnamento	English
Tipo esame	SCRITTO
Docente	CASTAGNETTI CAROLINA (titolare) - 9 CFU
Prerequisiti	Prerequisite is an introductory course in Econometrics. The course does not include an introductory part and deals immediately with advanced topics
Obiettivi formativi	<p>The course will focus on microeconomic data models. Analysis will be undertaken on cross section, qualitative and panel data. Illustrative examples and data sets are taken from the finance and microeconomics area.</p> <p>In the course we will go through the steps of obtaining and coding data for use in an analysis. Students will become reasonably proficient in the use of STATA, a computer program which will be used extensively in the course.</p>
Programma e contenuti	This course covers a number of advanced techniques frequently

encountered in applied econometric analysis oriented towards the analysis of cross-section and panel data. Important estimation frameworks such as GLS, IV/2SLS, GMM, Heckman correction and maximum likelihood will be discussed throughout the course.

We begin with a review of the multiple regression model with a look at the following issues: endogeneity of regressors due to omitted variables, measurement errors and simultaneity bias. We will address the issue of efficient estimation in the presence of heteroskedasticity and autocorrelation (GLS and FGLS) and how to build up robust standard errors and appropriate test statistics when the errors are not spherical. We then proceed to microeconomic data models. In particular, we introduce models with limited dependent variables: binary choice and multinomial models. Ordered, sequential and ranked outcomes. Sample selection models. We then introduce models for panel data: fixed effects, random effects, random coefficients models. We also plan to cover dynamic linear panel data models.

#### Metodi didattici

Frontal lessons if the health emergency will allow it. Otherwise online lessons but not live.

#### Testi di riferimento

J.M. Wooldridge, Introductory Econometrics: A Modern Approach, 2nd edition, Chapters 2-5, 7, 13-15,17.

M. Verbeek, A Guide to Modern Econometric, Chapters 7,10.

J.M. Wooldridge, Econometric Analysis of Cross Section and Panel Data, Chapters 10-11.

W.H. Greene, Econometric Analysis, 7th edition, Chapters 8, 11, 13-14.

#### Modalità verifica apprendimento

written exam

#### Altre informazioni

#### Obiettivi Agenda 2030 per lo sviluppo sostenibile

[\\$Ibl legenda sviluppo sostenibile](#)