COURSE DETAIL

ECONOMETRICS
Country Italy
Host Institution University of Bologna
Program(s) University of Bologna
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Economics
UCEAP Course Number 155
UCEAP Course Suffix
UCEAP Official Title ECONOMETRICS
UCEAP Transcript Title ECONOMETRICS
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description
The course provides an elementary but comprehensive introduction to the practice of econometrics for cross-sectional data, useful to correctly interpret estimates and develop simple empirical projects. By the end of the course, students have adequate knowledge of linear and some non-linear (logit, probit) regression models for the analysis of cross-sectional data and they are able to understand under what conditions linear regression model estimates have a causal interpretation. All regression models are illustrated starting from the discussion of a recent micro-economic application. Examples are analyzed in detail through a lab-session, in which students are able to practice at the computer with real data and learn the basic skills necessary to perform empirical work using free-available software (GRETL). Students develop data analysis competencies and critical thinking. Finally, the course focuses on which assumptions one draws conclusions on the causal relationship between phenomena, using regression results (e.g. does education lead to increase earnings? Does breastfeeding increase children's IQ? Does media bias affect voting behavior?). Topics covered in the course: cross-sectional data, time series data, pooled cross sections, panel or longitudinal data; causality and the notion of ceteris paribus in econometric analysis; random variable, distribution of a random variable, conditional and unconditional moments, mean and variance; population, parameters and random sampling; hypothesis testing; introduction to software and practical illustration of concepts; the simple linear regression model: theory and applications with GRETL in the lab empirical applications, modelling sales; evaluating the effect of promotions; the multiple linear regression model: theory and applications with GRETL or STATA in the lab-empirical applications, modelling sales; introduction to maximum likelihood estimation empirical applications: frauds in the "Wheel of Fortune" game; testing whether the difficulty of academic exams is constant across rounds; causality in microeconometrics: examples.

Language(s) of Instruction
English

Host Institution Course Number
67730

Host Institution Course Title ECONOMETRICS
Host Institution Course Details
Host Institution Campus ECONOMIA E MANAGEMENT
Host Institution Faculty
Host Institution Degree
Host Institution Department Business and Economics
Course Last Reviewed

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