Applied econometrics

Margherita Velucchi

Year: First year

Semester:: II Semester

Scientific sector:: SECS-P/05

Credits: 8

Total hours: 64 hours

Modular: No

OBJECTIVES

The course on Applied Econometrics is designed to introduce the basic tools to analyze linear relationships among economic and financial variables and to draw conclusions thereof. Theoretical classes will be supported and complemented by empirical exercises. We will try to address empirical and policy relevant questions, such as the response of inflation to an accommodative monetary policy, how to forecast inflation or how to compute measure of economic uncertainty that vary over time. As a consequence, the course will require the use of computers and programs; we will mainly work with Eviews. Core classes will be supported by practical sessions where the theoretical material will be reviewed with examples and the problem set corrected.

TEACHING PROGRAM

The course organization more in details is as follows:

Part 1: Linear Multivariate Regression Model

• Statistics and Probability Review, (Tutorial)

• Bivariate Regression Model, Intro

• Bivariate Regression Model, Properties

• Bivariate Regression Model, Specification

• Multivariate Regression Model

• Dummy Variables

Part 2: Applied Times Series

• Basic Concepts in Applied Times Series, AR, MA and ARMA processes

• Forecasting and Linear Projections

• Maximum Likelihood and Arch models

Modes of course: Lectures and lab hands-on applications (E-Views).

Examination methods: The examination will focus on the analysis and forecast of a time series and discussion on the theoretical issues related. Written Exam.

Student Reception:

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RECOMMENDED TEXTS

Professor will provide slides and text during the semester. In addition, suggested (non mandatory) textbooks are:

• (Introductory) Wooldridge J.M., Introductory econometrics, SouthWestern College Pub., 2003

• (Introductory) Stock J.H. and Watson, M. W., Introduction to Econometrics, 3rd Ed., Addison-Wesley Series in Economics, 2011

• (Advanced) Hamilton J.D., Time series analysis, Princeton University Press, 1994