SIdE PhD Courses 2020 – 31th Edition –

Introductory Econometrics

Bertinoro 7-13 June 2020

Coordinator

Giorgio Calzolari
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Lecturers

Giorgio Calzolari , University of Firenze
Francesca Di Iorio, University of Napoli Federico II
Marco Lippi , Einaudi Institute for Economics and Finance, Roma
Umberto Triacca, University of L'Aquila
Giulio Palomba , Università Politecnica delle Marche

Basic Requirements

The course requires a working knowledge of basic linear algebra, statistical inference and multiple linear regression model with the notation of linear algebra (matrices and vectors).

To this aim the following preliminary readings are suggested:

- Chapt. 1, 2, 3, 6 in Greene, W. H. (2002): Econometric Analysis (5-th edition). Upper Saddle River (NJ): Prentice Hall.
- Or chapt. 1-6 in Johnston, J. (1984): Econometric Methods (3rd edition). New York: McGraw-Hill, Inc. Italian translation by M. Costa and P. Paruolo (1993): Econometrica (3rd edition). Milano: Franco Angeli.

Reference textbook for the course:

Handouts, readings and further material will be provided before the beginning of the course and during the lectures.

Schedule of the course:

Linear regression, seemingly unrelated regressions, simultaneous equations, maximum likelihood

- Classical linear regression model (refresh).
- Elements of asymptotic theory: law of large numbers and central limit theorem (outline).

- Introduction to stochastic processes and Wold representation
- Introduction to time series analysis
- Likelihood: definition, score vector, information matrix, Cramer-Rao inequality, maximum likelihood, consistency, asymptotic efficiency.
- Seemingly unrelated regression equations (SURE): generalized least squares (GLS), feasible GLS, maximum likelihood (iterative GLS, hints).
- Simultaneous equations model: structural form and reduced form, static and dynamic solution, impact and dynamic multipliers, forecast, scenarios and economic policy.
- Identification: rank and order condition.
- Estimation: instrumental variables, limited-information methods (2SLS, LIVE, IIV)

Tutorials

Practical applications using the freeware software Gretl (download here).

For the computer tutorials participants will use the Gretl package, which will have to be installed on their own laptops. In exceptional cases, when students cannot use their computer, we may be able to supply an alternative solution, but please inform the course coordinator beforehand.

Program is *conditional* to the recruitment of a *minimum* of *15 participants*

Venue and timetables

The course will last one week and will be held in the University Residential Centre, Via Frangipane 6, 47032 Bertinoro (FC).

Participants will be hosted in the Centre guest quarters, (as an exception, in case of reduced availability of rooms in the Centre, they will be accommodated in local hotels).

Lectures and tutorials will be in English, with the following schedule:

Monday to Friday: lectures: 9.00-13.00, 15.30-17.30; tutorials: 17.40-19.30.

Saturday: lectures: 9.00-13.00.

Fees and Enrollment

- Students, new graduated students, PhD students and temporary university staff: 690€
- University staff: 800€
- Others: 2300€

Fee includes: accommodation (usually in double room with breakfast and lunch starting from Sunday evening.

Participants who wish to attend two or three Courses, are allowed the following reduced fees per Course

- Students, new graduated students, PhD students and temporary university staff: 590€ per Course
- University staff: 700€ per Course
- Others: 2000€ per Course

Application Deadline: April 18th, 2020

Deadline for Fee Payment is May 16th 2020

Contacts

- For more information: Antonella Mallus e-mail: info@side-iea.it
- For administrative issues : Alessandra Picariello phone:+39 0512092637; e-mail: alessandra.picariello@unibo.it
- For travel and accommodation: Monica Michelacci (mmichelacci@ceub.it), Roberta Partisani (rpartisani@ceub.it) phone: +39 0543446500