Introduction to Econometrics

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Basic Course Content:
1. The scientific method and definitions
2. Regression analysis and the classical linear regression model
3. Extensions of the classical linear regression model
4. Binary dependent variable
5. Time series

Learning Outcome:
The course aims at introducing students to the basic tools of econometric analysis, making use of weekly practices and econometric software that will help them develop basic empirical skills. In the first few classes it will become evident that knowing the main steps of the scientific method is the cornerstone of critical empirical thinking. The course will review the classical linear regression model (CLRM) and its extension to the multivariate case. Population and sample regression functions, the nature of the error term, parameter estimation, goodness of fit measures, hypothesis testing, dummy variables, and model selection criteria, are among the topics to be covered through the first two thirds of the course. The last few weeks will be devoted to the study of binary dependent variable models (LPM, Logit, and Probit) and time series analysis.

Level: 2nd and 3rd year / final year (intermediate)

Literature:
• Gujarati, D., *Basic econometrics*, 5th ed. 2008.
• Gujarati, D., *Essentials of econometrics*, 4th ed. 2009.
• Gujarati, D., E*conometrics by example*, 2011.
• Stundenmund, A.H., *Using econometrics: A practical guide*, 5th ed. 2005.
• Wooldridge, J., *Introduction to econometrics: A modern approach*, 4th ed. 2008.

Assessment: final written test (around 2 hours) and weekly practices; grading is: 80 (test) / 20 (practices).

Semester Hours per week: 4 (+4 of Tutorial).
Credits per course (ECTS): 8 (+8 of Tutorial).