

COURSE SYLLABUS

Doctoral course: Econometrics II, 7,5 credit points

Course code:
Reviewed by: RFB
Approved by: RFB
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Version: 1
Reference number: 2016/1090-41

Education Cycle: Third cycle, doctoral program course
Doctoral programme subject: Economics and Statistics

Purpose:

This is an intermediate level Ph.D. course in econometrics dealing mainly with a range of topics including panel data, discrete choice, limited dependent variables and time series models. The goal of the course is to provide an overview of advanced econometrics used in research.

The course has several main objectives. The first is to build on the first course in econometrics by providing an extended up-to-date knowledge in the use of the methodology. The second is to provide an overview of the recent developments in the literature related to the topics listed above. The third is to provide an overview of ways to tackle methodological issues that arise when doing research on panel data, qualitative and time series models and development and application of the methodology. Numerous applications from the literature will be considered. Finally, an additional purpose is to help the students to identify possible thesis topics and to prepare them for conducting original research in the field.

Intended learning outcomes:

On completion of the course, the students will be able to:

Knowledge and understanding

1. Demonstrate a broad knowledge of the development in the field of econometrics as a subject and its applicability and practice.
2. Demonstrate familiarity with methods used within the field of econometrics, i.e. modelling, estimation, testing, inference and analysis of results.

Skills and abilities

3. Demonstrate the ability to engage in scholarly analysis, presentations and discussions within the field of econometrics.
4. Demonstrate skills in performing econometric analysis.

Judgment and approach

5. Critically evaluate key contributions to the literature and demonstrate deeper insight into the potentials and limitations of econometrics in evaluations.
6. Critically analyze the relevance and contributions of contemporary perspectives to econometrics.
7. Critically and independently evaluate own and colleagues' assignments

Content:

The course is divided into three main parts:

Part I – Generalized Regression Models: systems of equations and models for panel data.

Part II – Cross Sections, Panel Data and Microeconometrics: discrete choice, event count and limited dependent variable models.

Part III – Time Series and Macroeconometrics: serial correlation and nonstationary data

The course will include computer exercises using STATA or LIMDEP.

Type of Instruction/Teaching format:

Lectures, computer assignments, course paper preparation, seminar presentation.

Prerequisites:

Admitted to a doctoral programme in economics, statistics or equivalent in a recognized university and having completed at least one Ph.D. course in statistics and/or econometrics, and having completed a course in matrix algebra.

Examination and grades:

The course is assessed through a written examination and computer assignments. The final exam and the computer assignments each need to be passed to pass the course. The grades for the course are “pass” or “fail”.

- Final exam covers ILOs 1, 2, 5, 6.
- Computer assignments cover ILOs 2, 3, 4, 7

Course evaluation:

A course evaluation will be conducted at the end of the course.

Additional information:**Literature:**

William H. Greene: *Econometric Analysis*, 7th Edition, Pearson, 2012.

Additional reading material: see separate list of journal articles.