JÖNKÖPING UNIVERSITY
Jönköping International Business School

COURSE SYLLABUS

Doctoral course: Advanced Applied Econometrics, 7.5 credit points

Course code:
Reviewed by: RFB
Approved by: RFB
Valid as of: 2019-11-07
Version: 1
Reference number:

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

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 a first course in econometrics at the doctoral level 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.

Judgement 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 assignments using STATA, LIMDEP or R.

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: (i) home assignments covering the main parts of the course, (ii) authoring an essay (6,000-8,000 words) that uses advanced econometric methods and is preferably part of the participants PhD thesis, (iii) presentation of the essay at a seminar. The home assignments, essay and its presentation each need to be passed in order to pass the course.

The grades for the course are "pass" or "fail".

- Home assignment covers ILOs 1, 2, 3, 4.
- Authoring an essay covers ILOs 1, 2, 3, 4, 5, 6.
- Presentation of essay at seminar covers ILOs 1, 2, 3, 4, 5, 6, 7.

Course evaluation:

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

Literature:

William H. Greene: Econometric Analysis, 8th Edition, Pearson, 2018.

Additional reading material published in econometrics and applied economics journals.