ME2710 Applied Econometrics 7.5 credits

Tillämpad ekonometri

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

Course syllabus for ME2710 valid from Autumn 2016

Grading scale

A, B, C, D, E, FX, F

Education cycle

Second cycle

Main field of study

Industrial Management

Specific prerequisites

University studies of at least 180 higher education credits of which at least 30 credits in mathematics / statistics / qualitative analysis or equivalent and documented proficiency in English B or equivalent.

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

After completing the course, participants will be able to:

- Demonstrate the ability to handle large amounts of data (Big Data Analysis) and combining theoretical approaches with data-driven decision making.
- Show a basic understanding of statistical characteristics of linear and nonlinear regressions
- Show the ability to distinguish between correlation and causality
- Demonstrate the ability to use appropriate quantitative methods to analyze different types of data.
- Demonstrate the ability to conduct and in a padagogical way present quantitative analyes

Course contents

This is a course in practical application of quantitative analysis methods for students in engineering and economics at the master's level. The course assumes that students have a basic knowledge of statistics and mathematics as well as the use of advanced statistical software (STATA, E-views, Matlab, R etc). The course is designed to provide students with practical knowledge and insight in modern research in the form of linear and non-linear estimation methods for large data sets.
Course main elements are:

- Basic linear regression
- Generalized Least Square (GLS) regressions
- Linear Instruments variable estimates
- Basic and advanced panel data models
- Binomial and Multinominala models
- Selection Models
- Models based on skewed distribution (Poisson distribution).
- Time Series Models

Course literature

Cameron, A.A., Trivedi, P.K. (2010) Mikroeconometrics Using Sata, revised Edition, Stata Press

Baltagi, B. (201) Econometric Analysis of Panel Data, forth edition. Wiley

Examination

- TEN1 - Exam, 5.0 credits, grading scale: A, B, C, D, E, FX, F
- ÖVN1 - Assignments, 2.5 credits, grading scale: P, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.