



School of Economics and Management

EKHM44, Economic History: Advanced Time Series Analysis, 7.5 credits

Ekonomisk historia: Avancerad tidsserieanalys, 7,5 högskolepoäng
Second Cycle / Avancerad nivå

Details of approval

The syllabus was approved by The Board of the Department of Economic History on 2012-12-11 to be valid from 2013-01-01, spring semester 2013.

General Information

This is a graduate level course which is optional at the master's programs offered by the Department of Economic History. It provides a progression from the course EKHM21 Econometrics with Time Series Analysis.

Language of instruction: English

Main field of studies

Economic History

Depth of study relative to the degree requirements

A1F, Second cycle, has second-cycle course/s as entry requirements

Learning outcomes

On a general level the student will acquire advanced knowledge in the use time series analysis techniques such as co-integration and panel data regression on economic problems. More specifically, to pass the assessments students will:

Knowledge and understanding

- have a deeper understanding of univariate time series analysis in levels,
- understand how unit root hypotheses are formulated and tested in univariate models,
- have an understanding of multivariate time series analysis in levels,
- have a deeper understanding of co-integration analysis,

- have an understanding of the analysis of either volatility in a univariate time series or unit roots and co-integration in panel data models.

Competence and skills

As regards skills, students will be able to

- apply advanced econometric tools to economic problems using time series
- choose a suitable time series model to analyse a specific problem
- evaluate whether the assumptions made by the chosen model are reasonable
- apply rational modelling strategies even when basic assumptions must be rejected
- implement econometric analyses of time series using econometric software
- give an account of and discuss their abilities within time series analysis and the appropriateness of different time series methods for the analysis of economic problems
- pursue further studies in the subject and should be able to search for and evaluate information with a high degree of independence
- individually write an empirically orientated essay at the master level using time series methods

Judgement and approach

As regards judgement and approach, students will:

- be able to formulate and test the hypothesis of co-integration in both single equation and multivariate time series models
- be able to formulate and test hypotheses concerning the co-integration vector
- be able to generalise their knowledge to economic problems that haven't been treated during the course
- be able to understand relevant empirical and econometric research

Course content

The content of the course is delimited of both teaching and literature.

The course gives an introduction to basic concepts within time series analysis. The univariate analysis of time series in this course is based upon ARMA/ARIMA models. Multivariate time series analysis is based on VAR models. Non-stationary time series are analysed using unit root tests, co-integration methods and VEC models. Students have the choice of specialising in the analysis of volatility models or non-stationary panel data models. Theoretical studies are interwoven with practical applications in financial economics and macroeconomics.

Course design

The course is designed as a series of lectures and computer exercises.

Assessment

Grading is based on individual performance on exercises and on written assignment. Written class room examinations will be offered at more than one occasion. All such exams will be assessed according to regular procedure.

The University views plagiarism very seriously, and will take disciplinary actions against students for any kind of attempted malpractice in examinations and assessments. The penalty that may be imposed for this, and other unfair practice in examinations or assessments, includes suspension from the University.

Subcourses that are part of this course can be found in an appendix at the end of this document.

Grades

Marking scale: Fail, E, D, C, B, A.

At the School of Economics and Management grades are awarded in accordance with a criterion-based grading scale UA:

A: Excellent
B: Very good
C: Good
D: Satisfactory
E: Sufficient
U: Fail

Students have to receive a grade of E or higher in order to pass a course.

GRADE	CHARACTERISTIC	CRITERIA
A	Excellent	A distinguished result that is excellent with regard to the following aspects – theoretical depth, relevance for the subject matter, analytical ability and independent thought.
B	Very good	A very good result with regard to the above mentioned aspects.

C	Good	The result is of a good standard with regard to the above mentioned aspects and lives up to expectations.
D	Satisfactory	The result is of a satisfactory standard with regard to the above mentioned aspects and lives up to expectations.
E	Sufficient	The result satisfies the minimum requirements with regard to the above mentioned aspects, but not more.
U	Fail	The result does not meet the minimum requirements with regard to the above mentioned aspects.

Students who do not obtain grades A-E on their written class room exam will be offered opportunities to retake the exam in which case the student will be assessed according to regular procedure. In the case of home exams that are handed in after the set deadline the teacher can: a) hand out a new exam which will be assessed according to regular procedure, b) may penalize the student by handing out a lower grade on the assignment in question unless the student can demonstrate special circumstances for the delay.

Entry requirements

Admission to this course is open for students on master's programmes offered by the Department of Economic History, as well as Ph D students in Economic History, who have passed the course EKHM21 (Econometrics with Time Series Analysis) or elsewhere have acquired the equivalent knowledge.

Further information

This course was previously labelled EKHP07 Advanced Time Series Analysis and cannot be included in the same degree as this course.

Subcourses in EKHM44, Economic History: Advanced Time Series Analysis

Applies from V12

1101 Advanced Time Series Analysis, 7,5 hp
Grading scale: Fail, E, D, C, B, A