

# Syllabus

for course at advanced level

**Econometrics 4b: Empirical Macroeconomics**

**Ekonometri 4b: Empirisk makroekonomi**

**7.5 Higher Education**

**Credits**

**7.5 ECTS credits**

|                          |   |
|--------------------------|---|
| <b>Course code:</b>      | EC7415  |
| <b>Valid from:</b>       | Autumn 2020   |
| <b>Date of approval:</b> | 2013-05-23  |
| <b>Changed:</b>          | 2020-05-14  |
| <b>Department</b>        | Department of Economics   |
| <b>Subject</b>           | Economics   |
| <b>Specialisation:</b>   | A1F - Second cycle, has second-cycle course/s as entry requirements |

## Decision

This syllabus was approved by the Board of the Department of Economics on May 23, 2013, and changed May 14, 2020.

## Prerequisites and special admittance requirements

Admission to this course requires that the student is either (1) enrolled in a Master's Programme in Economics at Stockholm University, or (2) has (a) eligibility for the Master's Programme in Economics at Stockholm University, and (b) prerequisites equal to the mandatory courses that have been given prior to this course according to the current curriculum for the Master's Programme in Economics.

## Course structure

| <b>Examination code</b> | <b>Name</b>                               | <b>Higher Education Credits</b> |
|-------------------------|---|---------------------------------|
| 741A                    | Econometrics 4b: Empirical Macroeconomics | 7.5                             |

## Course content

This course aims to provide students with econometric tools to answer various empirical macroeconomic questions. The methods covered include VAR, SVAR, cointegration, dynamic panels, GARCH, micro to macro, Bayesian VAR models and simple DSGE models. The focus is on applying these methods to various sets of data and choosing the appropriate method for different problems. The economic issues discussed in the course include causes of business cycle fluctuations in GDP, long-term macroeconomic equilibrium relationships, and determination of financial market risk premiums. The final quarter of the course is dedicated to the construction and evaluation of macroeconomic forecasts.

## Learning outcomes

Upon completion of the course, the student is expected to:

- understand and be familiar with key macroeconometric methods, especially multivariate time-series methods;
- be able to use these methods to analyse relevant problems;
- be able to determine which method is the most suitable to analyse a specific macroeconomic problem;
- be able to produce and evaluate macroeconomic forecasts;

- be able to critically evaluate macroeconomic analyses.

### **Education**

Instruction is given in the form of lectures and computer experiments. The language of instruction is English.

### **Forms of examination**

The course is examined on the basis of written assignments and a term paper.

The examination uses letter grades on a seven-point scale related to the learning objectives of the course. Passing grades are A, B, C, D and E, where A is the highest grade and E the lowest. Failing grades are F and FX.

Assessment criteria:

- A: The student demonstrates an excellent understanding of the theory behind the methods and their application; is able to use the methods independently and with great skill to analyse relevant problems; demonstrates an excellent understanding of which methods are suitable for analysing specific problems.
- B: The student demonstrates a very good understanding of the theory behind the methods and their application; is able to use the methods independently to analyse relevant problems; demonstrates a very good understanding of which methods are suitable for analysing specific problems.
- C: The student demonstrates a good understanding of the theory behind the methods and their application; is able to use the methods to analyse relevant problems; demonstrates a basic understanding of which methods are suitable for analysing specific problems.
- D: The student is able to give an account of the empirical methods; is able to use the methods to analyse relevant problems with minor flaws; demonstrates some understanding of which methods are suitable for analysing specific problems.
- E: The student is able to give an account of the most important empirical methods; is able to use the methods to analyse relevant problems with apparent flaws.
- FX: The student demonstrates having some, but insufficient, theoretical and empirical knowledge.
- F: The student demonstrates no substantial knowledge of the course's empirical methods.

If a student receives the grade FX or F on an examination, there are no restrictions on how many times they are allowed to retake the examination in order to obtain a grade of E or higher.

### **Interim**

If the course is discontinued, students have the right to be examined once per semester for three further semesters.

### **Misc**

The course is also included in the subject of econometrics.

In addition to the entry requirements, we strongly advise students to have prerequisites equivalent to the course EC7413, Econometrics 3b: Time Series Data, 7,5 ECTS.

### **Required reading**

See course homepage available from [www.ne.su.se](http://www.ne.su.se).