

# Department of Economics

# **Syllabus**

for course at first level

Empirical Methods in Economics I Empiriska metoder i nationalekonomi I

7.5 Higher Education Credits 7.5 ECTS credits

 Course code:
 EC2406

 Valid from:
 Spring 2023

 Date of approval:
 2020-12-03

 Changed:
 2022-09-01

**Department** Department of Economics

Main field: Economics

Specialisation: G1F - First cycle, has less than 60 credits in first-cycle course/s as entry

requirements

#### Decision

This syllabus was approved by the Board of the Department of Economics on September 1 2022.

#### Prerequisites and special admittance requirements

Economics I, 30 credits, or Microeconomic Theory and Applications, 15 credits and Macroeconomic Theory and Applications, 15 credits, or the equivalent.

#### **Course structure**

Examination codeNameHigher Education Credits242AEmpirical Methods in Economics I7.5

# **Course content**

The aim of this course is to provide an understanding of the statistical methods needed in order to analyze economic problems empirically. The analytical tools and concepts taught during the course are used in several different professions, and includes regression analysis, sources of endogeneity, randomized controlled experiments, the instrumental variable approach, difference-in-differences, panel data, and basic time series analysis (deterministic trends and seasonality, stationarity, properties of OLS, autocorrelation, and stochastic trends).

# **Learning outcomes**

Upon completion of this course, the student is expected to be able to:

- Independently carry out an empirical project;
- Explain and interpret the results of a regression analysis;
- Explain the fundamental possibilities and limitations of regression analysis;
- Identify strengths and weaknesses of empirical studies.

#### Education

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

#### Forms of examination

The course is examined on the basis of a written examination. Students may be awarded examination credits

during the course through voluntary partial examination during the course.

Students will receive 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, where F is lower than Fx.

#### Assessment criteria:

- A (Excellent): The student can in a well-developed reasoning explain the central parts of statistical methods that are needed for empirical analysis of economic problems. Furthermore, the student must be able to correctly apply the methods for solving economic practical problems. The student should also be able to explain very well why different methods are used for different economic problems.
- B (Very Good): The student can in a well-developed reasoning explain the central parts of statistical methods that are needed for empirical analysis of economic problems. Furthermore, the student must be able to correctly apply the methods for solving economic practical problems. The student must also be able to explain why different methods are used for different economic problems.
- C (Good): The student can explain the central parts of statistical methods that are needed for empirical analysis of economic problems. Furthermore, the student must to a large extent be able to correctly apply the methods for solving economic practical problems. The student must also be able to explain why different methods are used for different economic problems.
- D (Satisfactory): The student can explain a majority of the central parts of statistical methods needed for empirical analysis of economic problems. Furthermore, to a large extent, the student must be able to correctly apply the methods for solving economic practical problems. The student must also, to a certain extent, be able to explain why different methods are used for different economic problems.
- E (Adequate): The student can explain some of the central parts of statistical methods that are needed for the empirical analysis of economic problems. Furthermore, to a large extent, the student must be able to correctly apply the methods for solving economic practical problems. The student must also, to a small extent, be able to explain why different methods are used for different economic problems.
- Fx (Inadequate): The student does not meet the requirements for E.
- F (Totally Inadequate): The student does not meet the requirements for E.

If students fail a course unit and receive 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 this course is discontinued, students have the right to be examined on the course once per semester for three further semesters.

# Limitations

This course may not be included in a degree together with any of the following courses: NE2010 Fortsättningskurs i nationalekonomi (30 ECTS credits), NE2300 Fortsättningskurs i nationalekonomi på ekonomlinjen (30 ECTS credits), NE2400 Fortsättningskurs i nationalekonomi för matematik-ekonomilinjen (30 ECTS credits), NE2410 Fortsättningskurs i nationalekonomi för matematik-ekonomilinjen (22.5 ECTS credits), NE2500 Fortsättningskurs i samhällskunskap med inriktning mot nationalekonomi (30 ECTS credits), KG8140 Fysisk och ekonomisk planering med statistik - inriktning nationalekonomi (60 ECTS credits), NE2017 Empiriska metoder (7.5 ECTS credits), EC2401 Empirical Methods I (7,5 ECTS credits) or EC2403 Empirical Methods in Economics I (7,5 ECTS credits).

# Required reading

• Stock, J. H. & M. W. Watson, Introduction to Econometrics, Pearson Education, the latest edition.