

# Syllabus

for course at first level

**Empirical Methods in Economics IIa**  
**Empiriska metoder i nationalekonomi IIa**

**7.5 Higher Education  
Credits**  
**7.5 ECTS credits**

<b>Course code:</b>	EC2407
<b>Valid from:</b>	Spring 2023
<b>Date of approval:</b>	2020-12-03
<b>Changed:</b>	2022-09-01
<b>Department</b>	Department of Economics
<b>Main field:</b>	Economics
<b>Specialisation:</b>	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, and Empirical Methods in Economics I, 7,5 credits, or the equivalent.

## Course structure

Examination code	Name	Higher Education Credits
242A	Empirical Methods in Economics IIa	7.5

## Course content

The aim of this course is to provide a deeper understanding of research design and the statistical methods needed to empirically analyze research questions in economics. The focus is on causality. The course covers approaches such as randomized controlled studies, the instrument variable method, "Difference-in-differences", panel data and "Regression discontinuity".

## Learning outcomes

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

- Explain the fundamental possibilities and limitations of regression analysis;
- Understand the possibilities and the limitations of panel data;
- Understand the intuition for instrumental variable analysis;
- Understand the intuition for when and how a causal effect can be estimated.

## Education

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

## Forms of examination

The course is examined through assignments and a final course essay.

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): Be able to discuss, in a well-developed reasoning, the research design of empirical projects. Be able to discuss, in a well-developed reasoning, strengths and weaknesses with research design of empirical projects.
- B (Very Good): Be able to discuss, in a developed reasoning, research design of empirical projects. Be able, in a developed reasoning, to discuss strengths and weaknesses with a research design of empirical projects.
- C (Good): Be able to discuss key elements of research design of empirical projects. Be able to discuss the strengths and weaknesses of a research design of empirical projects.
- D (Satisfactory): Be able to discuss several central elements of research design of empirical projects. Be able to discuss several key areas of strengths and weaknesses in research design of empirical projects.
- E (Adequate): Be able to discuss some elements of research design of empirical projects. Be able to discuss some areas of strengths and weaknesses with research design of empirical projects.
- Fx (Inadequate): Does not meet the requirements for E.
- F (Totally Inadequate): 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 Föreläsning i nationalekonomi (30 ECTS credits), NE2300 Föreläsning i nationalekonomi på ekonomlinjen (30 ECTS credits), NE2400 Föreläsning i nationalekonomi för matematik-ekonomilinen (30 ECTS credits), NE2410 Föreläsning i nationalekonomi för matematik-ekonomilinen (22.5 ECTS credits), NE2500 Föreläsning 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), EC2402 Empirical Methods II (7.5 ECTS credits), eller EC2404 Empirical Methods in Economics 2 (7.5 ECTS credits).

### **Required reading**

The course includes research articles (see course website available from [www.ne.su.se](http://www.ne.su.se).) and the following books:

- Stock J H & Watson M W. Introduction to Econometrics, Pearson Education, the latest edition.
- Angrist J & Pischke J-S. Mastering Metrics. The Path from Cause to Effect, Princeton University Press, the latest edition.
- Békés G & Kézdi G. Analysis for Business, Economics, and Policy, Cambridge University Press, the latest edition.