



## Course syllabus

School of Business and Economics

Department of Economics and Statistics

4NA080 Avancerade empiriska metoder i nationalekonomi, 7.5 credits

Advanced Empirical Methods in Economics

### **Main field of study**

Economics

### **Subject Group**

Economics

### **Level of classification**

Second Level

### **Progression**

A1F

### **Date of Ratification**

Approved 2020-06-24

Revised 2022-05-23 by School of Business and Economics. Small correction of prior knowledge requirements and update of standard texter.

The course syllabus is valid from spring semester 2023

### **Prerequisites**

General entry requirements for second-cycle studies, plus specific entry requirements:

- Bachelor Degree in Economics, or in another social science or natural sciences field, or the equivalent;
- Economics, at A1N/F level, a minimum of 22,5 credits acquired in advanced mathematical economics, advanced econometrics, advanced microeconomics, advanced macroeconomics, or the equivalent;
- Statistics, at G1N/F level, a minimum 15 credits, or credits acquired in time series analysis and regression analysis, or the equivalent;
- Advanced Mathematical Economics, at A1N level, 7.5 credits, or the equivalent;
- English 6, or the equivalent.

## Objectives

After completing this course the student should be able to:

- explain the idea behind econometric methods to isolate causal effects in the analysis of economic problems;

- apply the most common econometrics methods on economic problems;
- explain how selection affects the ability to isolate causal effects and explain and use methods to solve the selection problem;
- reflect critically on ethical issues in empirical studies in economics;
- value and identify strengths and weaknesses of empirical studies within economics;
- both orally and in writing interpret, report and summarize results of conducted regression analyses.

## Content

The course contains:

- the selection problem and randomization;
- panel data and panel data methods such as fixed effects and difference-in-differences;
- instrumental variable analysis;
- regression discontinuity design;
- experimental and quasi-experimental methods.

## Type of Instruction

The teaching consists of lectures and seminars.

## Examination

The course is assessed with the grades A, B, C, D, E, Fx or F.

The course is examined through a written examination (5 credits) and a serie of laboratory sessions that are oral presentated (2.5 credits).

The grade A constitutes the highest grade on the scale and the remaining grades follow in descending order where the grade E is the lowest grade on the scale that will result in a pass. The grade F means that the student's performance is assessed as fail. Grading criteria for the A–F scale are communicated in writing to the student by the start of the course at the latest, as well as how the weighting and weighting of grades on individual examining elements to the final course grade takes place. The basis for the student's grade is determined by the student's fulfillment of the objectives.

Repeat examination is offered in accordance with Local regulations for courses and examination at the first and second-cycle level at Linnaeus University. An examiner can, in exceptional cases, decide that a student who is close to the level for a passing grade may carry out supplementary assignments in order to reach the passing grade.

If the university has decided that a student is entitled to special pedagogical support due to a disability, the examiner has the right to give a customised exam or to have the student conduct the exam in an alternative way.

## Course Evaluation

During the implementation of the course or in close conjunction with the course, a course evaluation is to be carried out. Results and analysis of the course evaluation are to be promptly presented as feedback to the students who have completed the course. Students who participate during the next course instance receive feedback at the start of the course. The course evaluation is to be carried out anonymously.

## Credit Overlap

The course cannot be included in a degree along with the following course/courses of

which the content fully, or partly, corresponds to the content of this course: 4NA050 and 4NA070 with 7,5 credits each.

## Required Reading and Additional Study Material

### **Required reading**

Angrist, J. D. & Pischke, J. S. *Mostly Harmless Econometrics: An Empiricist's Companion*. Latest Edition. About 370 pages.

Stock, J. H. & Watson, M. W. *Introduction to Econometrics*. Latest edition. About 840 pages.

Scientific articles. About 300 pages.