



Faculty of Arts and Social Sciences  
Economics

# Syllabus

## Applied Econometrics

<b>Course Code:</b>	NEAD17
<b>Course Title:</b>	Applied Econometrics <i>Tillämpad ekonometri</i>
<b>Credits:</b>	7.5
<b>Degree Level:</b>	Master's level
<b>Progressive Specialisation:</b>	Second cycle, has only first-cycle course/s as entry requirements (A1N)

**Major Field of Study:**  
NAA (Economics)

### Course Approval

The syllabus was approved by the Faculty of Arts and Social Sciences 2019-03-07, and is valid from the Autumn semester 2019 at Karlstad University.

### Prerequisites

90 ECTS credits in Economics, including NEGB22 Econometrics (7.5 ECTS credits) or equivalent, plus additional courses totalling at least 30 ECTS credits at the G2F level or above. 15 ECTS credits in Statistics, or equivalent. Upper secondary level English 6, English B, or equivalent

or

90 ECTS credits in Economics, including at least 30 ECTS credits at the G2F level or above. 22.5 ECTS credits in Statistics, including STGA02 Econometrics (7.5 ECTS credits), or equivalent. Upper secondary level English 6, English B, or equivalent

### Learning Outcomes

Upon completion of the course, students should be able to  
- choose and apply statistical methods to economic areas,

- master estimation of non-linear models,
- analyse models with a dichotomous variable as dependent variable: The LPM, Logit and Probit model,
- use simultaneous equation models, identification, indirect and two-stage least squares method,
- use dynamic models with time delayed explanatory variables,
- use the Granger causality test, and
- present the theory of stationary and non-stationary models such as the ARMA and ARIMA model.

### **Content**

The course centres on the use of statistical and mathematical methods to analyse economic data. It comprises the following components:

- non-linear regression models
- regression with qualitative dependent variables
- simultaneous equation models
- dynamic models
- time series analysis
- application of econometric methods to economic models
- independent identification of an economic problem and collection of relevant data to test an economic model using one of the econometric methods studied in the course.

### **Reading List**

See separate document.

### **Examination**

Assessment is based on a written exam, an individual hand-in assignment presented orally and in writing, and an independent project..

### **Grades**

One of the grades Distinction (VG), Pass (G) or Fail (U) is awarded in the examination of the course.

### **Quality Assurance**

Follow-up relating to learning conditions and goal-fulfilment takes place both during and upon completion of the course in order to ensure continuous improvement. Course evaluation is partly based on student views and experiences obtained in accordance with current regulations and partly on other data and documentation. Students will be informed of the result of the evaluation and of any measures to be taken.

### **Course Certificate**

A course certificate will be provided upon request.

### **Additional information**

The local regulations for studies at the Bachelor and Master levels at Karlstad University stipulate the obligations and rights of students and staff.