



# AI2134 Quantitative Methods Applied to Real Estate and Fi- nancial Service 7.5 credits

Quantitative Methods Applied to Real Estate and Financial Service

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

## Establishment

Course syllabus for AI2134 valid from Autumn 2009

## Grading scale

A, B, C, D, E, FX, F

## Education cycle

Second cycle

## Main field of study

## Specific prerequisites

In addition to being admitted to the Real Estate Management programme, students must have 7,5 credits Mathematics and/or Statistics and/or Mathematical Statistics and/or Investment Mathematics and Economics

## Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

## Intended learning outcomes

After taking this course students should be able to use, understand and interpret quantitative methods, e.g., regression analysis, to examine the real estate market, analyse trends, conduct forecasting and construct index series.

## Course contents

The course is divided into the following main parts: 1. Regression analysis using cross sectional data In this part, we study how we may establish and quantify relationships between variables, mainly on the real estate market. To do this we will first discuss the technique of regression analysis, both for simple regression analysis and for multiple regression analysis. 2. Regression analysis using time series data In this part, we will study the central issues regarding regression analysis when applied to data over longer period, i.e., a time series. We will look at both time series analysis and residual analysis.

## Course literature

Wooldridge, J.M., Introductory Econometrics

## Examination

- INL1 - Assignment, 3.0 credits, grading scale: P, F
- TEN1 - Examination, 4.5 credits, grading scale: A, B, C, D, E, FX, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

## Other requirements for final grade

Written exam, 4.5 credits, A-F

Assignments, P/F, To pass (P) the student must hand in at least 4 assignments.

## Ethical approach

- All members of a group are responsible for the group's work.

- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.