

# Al1175 Basic Statistics for Economists 7.5 credits

#### Grundläggande statistik för ekonomer

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 AI1175 valid from Autumn 2016

## **Grading scale**

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

## **Education cycle**

First cycle

## Main field of study

**Technology** 

#### Specific prerequisites

SF1627 Mathematics for Economists 9.0 credits, or matching courses.

#### Language of instruction

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

#### Intended learning outcomes

After the course, students should have basic knowledge of commonly-used statistical concepts and methods, as economists in different industries apply. After completing the course students will for different circumstances be able to:

- 1. Identify appropriate statistical methods.
- 2. Perform calculations using computer software, in particular spreadsheet programs such as Excel.
- 3. Interpret, analyze and present results from statistical calculations.
- 4. Critical use own and others' statistical results.

#### Course contents

- Examples of statistical applications in various economic issues
- Descriptive statistics, both visual (graphical) and numerical description
- Data Types
- Data sources, data collection and sampling methods
- Production of official statistics
- Probability
- Discrete and continuous probability distributions
- Statistical inference
- Point estimates, confidence intervals and hypothesis testing
- Statistics with Excel (and perhaps introduction to R).

## Disposition

Lectures

Exercises in class-rooms and computer rooms

Mandatory group tasks with Excel

#### **Course literature**

Statistics for Business and Economics (latest edition) av Paul Newbold, William Carlson, Betty Thorne. Pearson.

Lecture notes and training materials, as well as datasets from mainly web-based data sources.

#### **Examination**

- INL1 Assignment, 3.5 credits, grading scale: P, F
- TEN1 Written Exam, 4.0 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.

# 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.