



# AK2032 Vetenskapsteori och vetenskaplig metodik (samhällsvetenskap) 4,5 hp

Theory and Methodology of Science (Social Science)

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Kursplan för AK2032 gäller från och med HT08

**Betygsskala:** A, B, C, D, E, FX, F

**Utbildningsnivå:** Avancerad nivå

**Huvudområde:** -

## Lärandemål

### Course goals

The course provides an introduction to the theory and methodology of science and is intended for the Master student or beginning PhD student. One aim is to supply the basic concepts needed for placing the techniques and knowledge acquired in the student's other courses in the wider context of the social sciences. Another aim is to provide the basic intellectual tools that allow for a reasoned and critical assessment of results and methods from the wide variety of disciplines that the student is likely to encounter during his or her continued career in research and/or in professional life. The course is mainly focused on the general theoretical and methodological issues that arise in science, with an emphasis on the social sciences; but basic theoretical issues, techniques and problems from the natural and technological sciences are also covered to provide the student with a wider outlook. Emphasis is placed on the fundamental problems common to the social and natural sciences and on the general strategies, methods and concepts that modern science has developed to address these problems.

## Kursens huvudsakliga innehåll

### Course contents

- Scientific knowledge
- Hypothesis testing
- Causes and correlations
- Observations and measurements
- Experiments
- Models
- Law and explanations
- Science for societal decision-making
- The development of science
- Research ethics

## Kursupplägg

### Course disposition

Lectures and seminars.

## Undervisningsspråk

Undervisningsspråk anges i kurstillfällesinformationen i kurs- och programkatalogen.

## Behörighet

### Eligibility for "free movers" applying to single courses:

The course is intended for students that have passed 180 credits (three years of full-time studies) in their engineering programme.

## Litteratur

### Course literature

- Malcolm Williams "Introduction to philosophy of social research"
- Sven Ove Hansson "The art of being scientific"

## Examination

- SEM1 - Seminarier, 1,5 hp, betygsskala: P, F
- TEN1 - Tentamen, 3,0 hp, betygsskala: A, B, C, D, E, FX, F