



# AK3024 Introduktion till vetenskapsteori och forskningsmetodik, teknik och naturvetenskaplig inriktning 4,5 hp

Introduction to Theory of Science and Research Methodology, for Graduate Students in Technology and Natural Sciences

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Kursplan för AK3024 gäller från och med VT09

**Betygsskala:**

**Utbildningsnivå:** Forskarnivå

## Lärandemål

The course provides an introduction to the theory and methodology of science and is intended for the 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 natural 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.

## Kursens huvudsakliga innehåll

- 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

## Undervisningsspråk

Undervisningsspråk anges i kurstillfällesinformationen i kurs- och programkatalogen.

## Behörighet

Basic degree 180 hp.

## Litteratur

- A.F. Chalmers "What Is This Thing Called Science?"
- Sven Ove Hansson "The art of being scientific"

## Examination

## Krav för slutbetyg

- Seminars 1.5 hp
- Exam 3 hp