



# CH205V Scientific Methods in Work Environment and Health

## 7.5 credits

Vetenskapliga metoder inom arbetsmiljö och hälsa

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

### Establishment

Course syllabus for CH205V valid from Spring 2025

### Grading scale

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

### Education cycle

Second cycle

### Main field of study

Technology and Health

### Specific prerequisites

120 credits in technical science, natural science, medical science or human resources management. Alternatively, 2 years of professional experience in work environment development. English B/6.

### Language of instruction

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

## Intended learning outcomes

The overall aim of the course is to give the student the knowledge and skills needed to compile and evaluate scientific literature in work and health, conduct a small study/survey about work and health and prepare the students for postgraduate studies.

After completing the course, the student should be able to:

1. explain scientific theoretical concepts in relation to the scientific field Work and health
2. formulate and identify the problem behind scientific questions of relevance to the scientific field Work and health
3. evaluate the differences between diverse research methods in terms of study design, data collection, and analysis methods; identify advantages and disadvantages of the different methods and understand how they complement each other
4. critically review scientific literature and research in quantitative and qualitative research
5. carry out a small, scientific study with a qualitative and quantitative approach
6. explain and critically reflect on the basic principles of research ethics

## Course contents

The course covers scientific theory, scientific methods and ethics. The theory of science lays the foundations for the methodology and includes deductive and inductive approaches as well as the history of science. However, the main focus of the course is on the scientific methods. The course goes through both quantitative methods (Epidemiology, experimental design and basic statistics) and qualitative methods with a focus on thematic analysis. It also includes valuing the ethical aspects within the research and the basic principles of research ethics.

## Examination

- SEM1 - Seminars, 1.5 credits, grading scale: P, F
- TEN1 - Written exam, 3.0 credits, grading scale: A, B, C, D, E, FX, F
- PRO2 - Project work, 3.0 credits, grading scale: P, 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.

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

\* In the event of absence from one seminar in the SEM1 module can, if the examiner deems it so, a replacement task may be assigned. In that case, this could be to submit a written reflection on the material studied before the respective seminar.'

A written project report together with an oral presentation, (PRO2, 3.0 credits), grading scale P/F, examines course objectives 2, 3, and 5.

Seminars (SEM1, 1.5 credits) with compulsory attendance, grading scale P/F, examines course objectives 2, 4 and 6.

The exam (TEN1, 3.0 credits) grading scale: A, B, C, D, E, Fx, F, examines course objectives 1, 3 and 6.

The final grade is based on TEN1 from its grade, scale A, B, C, D, E, Fx, F.

## **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.