KURSPLAN
# Theory of Science and Scientific Method, 15 högskolepoäng

*Theory of Science and Scientific Method, 15 credits*

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| **Kurskod:** | HTSR23 | **Utbildningsnivå:** | Avancerad nivå |
| **Fastställd av:** | Utbildningsrådet 2022-04-12 | **Utbildningsområde:** | Vård |
| **Reviderad av:** | Utbildningschef 2023-04-21 | **Ämnesgrupp:** | TR1 |
| **Gäller fr.o.m.:** | 2023-08-28 | **Fördjupning:** | A1N |
| **Version:** | 2 | **Huvudområde:** | Arbetsterapi |

## Lärandemål

Upon completion of the course, the student should have the ability to:

Kunskap och förståelse
- differentiate between traditional approaches in theory of science
- describe and assess appropriate qualitative and quantitative research methods in relation to different kinds of research questions
- describe ethical considerations within qualitative and quantitative research methods
- explain what signifies trustworthiness as well as validity and reliability in qualitative and quantitative studies.

Färdighet och förmåga
- problematize and specify research questions in a particular field of study
- apply ethics in research
- perform studies using qualitative and quantitative research methods.

Värderingsförmåga och förhållningssätt
- evaluate and discuss approaches in theory of science in relation to a research question
- assess the quality of qualitative and quantitative studies.

## Innehåll

### Module 1. Philosophical principles of research and approaches of theory of science, 3 credits
- approaches in theory of science

### Module 2. Qualitative research methods, 5 credits
- research design using qualitative research methods
- trustworthiness
- research ethics

### Module 3. Quantitative research methods, 5 Credits
- research design using quantitative research methods
- validity and reliability
- research ethics

### Module 4. Thesis proposal, 2 Credits
- research design using qualitative or quantitative research methods
- trustworthiness or validity and reliability
- research ethics

## Undervisningsformer
The course is given as a web-based course. Learning activities include lectures, seminars, practical exercises, and group discussions.

Undervisningen bedrivs på engelska.

## Förkunskapskrav
Kandidatexamen 180 hp eller motsvarande inom huvudområdena hälsa och vårdvetenskap, beteendevetenskap, socialt arbete inklusive ett avslutat examensarbete om minst 15 hp (eller motsvarande kunskaper).

## Examination och betyg
Kursen bedöms med betygen A, B, C, D, E, FX eller F.

### Module 1. Philosophical principles of research and approaches of theory of science, 3 Credits
A written group assignment.

### Module 2. Qualitative research methods, 5 Credits
An individually written assignments and an oral group assignment.

### Module 3. Quantitative research methods, 5 Credits
Two individually written assignments.

### Module 4. Thesis proposal, 2 Credits
A written thesis proposal with a qualitative or quantitative research design, an oral defense of the proposal, and an opposition of a proposal.

A university senior lecturer serves as examiner for the course.

Poängregistrering av examinationen för kursen sker enligt följande system:

| Examinationsmoment | Omfattning | Betyg |
|---|---|---|
| Module 1. Forskningens filosofiska grunder och vetenskapsteor. synsätt | 3 hp | A/B/C/D/E/FX/F |
| Module 2. Kvalitativa vetenskapliga metoder | 5 hp | A/B/C/D/E/FX/F |
| Module 3.Kvantitativa vetenskapliga metoder | 5 hp | A/B/C/D/E/FX/F |
| Module 4. Projektplan | 2 hp | U/G |

## Kurslitteratur
American Psychological Association. (2019). *Publication manual of the American Psychological*

*Association* (7th ed.). American Psychological Association.

Brinkmann, S., & Kvale, S. (2018). *Doing interviews* (2nd ed.). SAGE Publications Ltd.

Chalmers, A.F. (2013). *What is this thing called science?* (4th ed.). University of Queensland Press.

Creswell, J.W., & Creswell, J.D. (2018). *Research design: qualitative, quantitative, and mixed method approaches* (5th ed.). SAGE Publications Inc.

DePoy, E., & Gitlin, L. N. (2020). *Introduction to research: understanding and applying multiple strategies* (6th ed.). Elsevier.

Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). SAGE Publications, Inc.

Gustavii, B. (2017). *How to write and illustrate a scientific paper* (3rd ed). Cambridge University Press.

Iphofen, R. (Ed.) (2020). *Handbook of research ethics and scientific integrity* (1st ed.). Springer.

The latest edition of the course literature should be used.
In addition: scientific articles and reports depending on main area and chosen research method.