



## Course syllabus

Faculty of Arts and Humanities

Department of Cultural Sciences

2UVÄ08 Vetenskapsteori och forskningsmetodik för ämneslärare - inriktning mot arbete i gymnasieskolan, 7,5 högskolepoäng

Theory of science and research methodology for subject teachers, specialisation for upper secondary school teachers, 7.5 credits

### **Main field of study**

Educational Sciences

### **Subject Group**

Educational Sciences/General Didactics

### **Level of classification**

First Level

### **Progression**

G2F

### **Date of Ratification**

Approved 2014-08-27

Revised 2019-05-08 by Faculty of Arts and Humanities. Revised prerequisites.

The course syllabus is valid from spring semester 2020

### **Prerequisites**

Subject studies of 150 credits in the Teacher Education, 22.5 credits of UVK courses, and Teaching practice placement I for upper secondary school teachers, or the equivalent.

## Objectives

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

- account for similarities and differences between methods in the natural sciences, the social sciences, and the humanities, on the basis of theoretical reflections,
- critically discuss the relation between knowledge interest, aims, research questions and methods in scientific projects,
- evaluate choices of methods for collecting and analysing various types of data,
- critically analyse scientific projects, focusing on the relation between theoretical approaches, methods and results,
- problematise the relation between scientific basis and reliable experience in relation to their future careers,
- produce texts adhering to established norms for academic writing,
- discuss research ethics in relation to specific research questions and methods.

## Content

In this course the students discuss various scientific traditions and reflect on their similarities and differences, focusing especially on methods. Various traditions are placed in a theoretical context, focusing both on views of knowledge and on research interest. The course also includes a practical part in which the students practise critically reviewing scientific projects concerning method choices and implementation, as well as their own formulation of research questions and choice of appropriate methods. The course includes two distinct parts. One part consists of a general introduction to the theory of science. The other part includes a comparison between various scientific traditions, focusing in methodologies, for example text interpretation, interviews, field work, surveys and experiments. The students also practise formulating scientific texts and reflecting on issues concerning research ethics.

### *Scientific approach and scientific progression*

In this course the students have the possibility to develop the scientific reflections they have started in previous subject studies, but also to broaden their competence by comparing methods in different subject areas. By doing this, the students develop their understanding of scientific aspects in other disciplines than their own, as well as their abilities to comprehend and evaluate various types of research results. The course includes in-depth discussions of critical approaches and the abilities to analyse and accurately communicate scientific results in speech and writing.

### *Professional basis and professional progression*

The professional basis of the teaching profession lies in subject studies, the educational sciences (UVK), and teaching practice placement. This course emphasises science and research as significant parts of educational work, and the students practise their abilities to comprehend and evaluate research relevant to their future careers. This provides the students with possibilities to develop their professional skills and to participate actively in the development work at their future workplace.

## Type of Instruction

Teaching is delivered in the form of lectures and seminars, as well as student-led workshops. Participation in seminars is compulsory.

## Examination

The course is assessed with the grades Fail (U), Pass (G) or Pass with Distinction (VG).

The course is examined through:

- Written assignments (3 credits) Grades U–VG
- Active participation in seminars (1.5 credits) Grades U–G
- A final report in the form of a research plan with methodological reflections (3 credits) Grades U–VG

In order to receive the grade of Pass, the student must achieve the intended learning outcomes. In order to receive the grade of Pass with Distinction, the student must have received this grade for the written assignments and the final report.

For students who do not pass their first examinations, retake examinations are provided in accordance with local regulations at the university.

## Course Evaluation

At the end of the course, a course evaluation is conducted. Results and analysis of the course evaluation are communicated to the students who have taken the course and the students who are taking the course when it is offered the next time. The evaluation is anonymous. The course evaluation is filed according to departmental regulations.

## Required Reading and Additional Study Material

Allwood Carl Martin & Erikson Martin (2010) *Grundläggande*

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*vetenskapsteori*. Lund: Studentlitteratur, (180 p). ISBN: 9789144047980

Chalmers, Alan F. (2003). *Vad är vetenskap egentligen?* 3rd revised edition. Nora: Nya Doxa, ( 237 p). ISBN: 9789157804259

Denscombe, Martyn (2009). *Forskningshandboken*. 2nd ed. Lund: Studentlitteratur, (selected parts, 250 p). ISBN: 9789144050041

Hermerén, Göran (2011). *God forskningssed*. Stockholm: Vetenskapsrådet, (130 p). ISBN: 9789173071895 Available online: [www.cm.se/webbshop\\_vr/pdf/2011\\_01.pdf](http://www.cm.se/webbshop_vr/pdf/2011_01.pdf)

Kjørup, Søren (2009). *Människovetenskaperna: problem och traditioner i humanioras vetenskapsteori*. 2nd ed [revised and updated]. Lund: Studentlitteratur. (380 p). ISBN: 9789144054124

Lantz, Björn (2011). *Den statistiska undersökningen grundläggande metodik och typiska problem*. Lund: Studentlitteratur, (182 p). ISBN: 9789144072739.

Schött, Kristina (2007). *Studentens skrivhandbok*. 2nd [updated] edition. Stockholm: Liber (176 p). ISBN: 978-91-47-08459-3 .

Articles in accordance with instructions by the teacher, 20 p.