



# FAD3100 Theory of Science and Research Methods in Art, Technology and Design 7.5 credits

Vetenskapsteori och forskningsmetodik i konst, teknik och design

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

## Establishment

Course syllabus for FAD3100 valid from Autumn 2015

## Grading scale

G

## Education cycle

Third cycle

## Specific prerequisites

To be eligible for the course, students must have completed a masters' degree or have an equivalent level of education in technology, art or design (such as architecture, planning, civil engineering, design, arts and crafts, or fine arts) or affiliated subjects within the humanities and social sciences. The course requires a minimum of 5 and a maximum of 25 students to be held.

## Language of instruction

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

## Intended learning outcomes

On completion of the course, the student should be able to

Account for and be able to reflect on the basic principles of scientific theory in relation to method

Account for and be able to reflect on concepts of knowledge in relation to research practice

Account for the main traditions in qualitative research methodology and critically assess them in relation to topics, aims and outcomes

Account for notions of paradigmatic shifts, inter- and transdisciplinary research, and for perceived divides between different scientific traditions

Critically reflect over how social complexity affects the preconditions for research, in general and in view of a specific study

Critically reflect over his/her own research practice in view of its epistemological and ethical challenges

## Course contents

The course provides an overview of theory of science and scientific method, set within a cultural framework and addressed in relation to (forms of) knowledge. The focus lies on reflexive, critical and qualitative research methods in the humanities and the social sciences. Notions of paradigmatic shifts, divides between different scientific traditions, and inter- and transdisciplinary research are presented and framed in ways that are particularly useful for students pursuing practice-based research, artistic research and design research. Students are provided with a solid understanding of key concepts and topics – such as the relation between epistemology, ontology, and methodology, and the linkage between research question, method, aim and result – through lectures and literature seminars. In emphasizing social complexity and with a focus on poorly-defined cases characterized by “messiness”, the course aims at providing students with advanced insights into recent thinking on reflexive and critical methodologies, qualitative and innovative methods, and performative research practices. Historical examples and key philosophical sources are combined with current thinking in various academic fields characterised by criticality, experimentation and reflexivity. On completion of the course, the student will be able to reflect on his/her own position in relation to dominant schools of thought, and critically discuss the problems and opportunities, as well as the epistemological and ethical challenges, inherent to his/her own research practice.

## Course literature

Excerpts from e.g. Mats Alvesson and Kaj Sköldböck, "Reflexive Methodology: New Vistas for Qualitative Research" (SAGE Publications, 2013); Celia Lury and Nina Wakeford (eds.), "Inventive Methods: The Happening of the Social" (Routledge, 2014); John Law, "After

method: *Mess in Social Science Research* (Routledge, 2004) in combination with articles presented at the beginning of the course.

## Examination

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.

## Other requirements for final grade

The course is graded P/F and examined in two parts:

- Participation in seminars, including group and/or individual assignments (4 credits).
- Hand-in of final paper of a satisfactory quality and participation in the final review/workshop (3,5 credits).

## 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.