



# FAH3463 Research Methods in Transport Science, Part 1 4.0 credits

Forskningsmetodik i transportvetenskap, del 1

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

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

## Establishment

Course syllabus for FAH3463 valid from Spring 2013

## Grading scale

## Education cycle

Third cycle

## Specific prerequisites

Admission into the doctoral programme in Transport Science.

## Language of instruction

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

## Intended learning outcomes

After finishing the course, the student shall be able to:

- Critically reflect on the predominant and alternative research methods in transport science, particularly his/her own research approach
- Consider the validity implications of alternative research designs and, on that basis, choose an appropriate design,
- Evaluate methodological approaches in published research in the context of broader methodological discourses,
- Critically review the research approach and methodology of another field within transport science,
- Articulate, in oral and written forms, a research design and methodology appropriate to the student's own research,
- Identify and handle potential ethical issues both in operative research activity and in research designs in themselves.

The above criteria, expressed through active participation in class sessions, written reflections, and research presentations, are those used to determine whether students receive a passing grade.

## Course contents

The course is designed to introduce research students at the early stage of their study to appropriate concepts, approaches, tools and methods to conduct research in the area of transport science. The course gives an overview of research methodologies and it deals with research processes including information retrieval, discussion and evaluation of results, and presentation of research work for the scientific community and for the general public. It also introduces how to better make use of research for the benefit of industry and society, and introduce the students with research ethics and scientific working methods in transport science as part of the course.

## Course literature

Creswell, 2009. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Los Angeles: Sage Publishing.

## 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.

Participation in course session activities; Written and oral report

## Other requirements for final grade

Participation in course session activities; Written and oral report

## 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.