AH2178 Research Methodology and Communication Skills 7.5 credits

Forskningsmetodik och kommunikation

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

Establishment

Course syllabus for AH2178 valid from Autumn 2016

Grading scale

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

Education cycle

Second cycle

Main field of study

The Built Environment

Specific prerequisites

180 credits higher education and English B level from Swedish upper secondary school or equivalent

Language of instruction

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

Intended learning outcomes

The main goal of the course is to prepare the students for research and scientific writing. The course intends to give the students the practical skills that are required to succeed with the degree project.

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

- Explain the historical development of scientific theoretical concepts, research methods and underlying ideas
- Identify and discuss critically, both orally and in writing, the basic scientific theoretical and methodological methods within technological, natural and social sciences.
- Design and formulate a plan for a smaller research project and identify the most appropriate research method
- Explain rules for scientific communication: contents, language, expression, copying and quoting the work of others
- Identify and critically review collected information, data, theoretical and methodological problems in research reports and scientific articles within the student's own subject study field. Assess these considering relevant scientific, societal and ethical aspects

Course contents

- The historical development of theory of science, basic concepts and terms
- The research process, hypothesis testing, experimental design
- Methods of measurement, observations, data collection, sources of information
- Qualitative and quantitative data analysis
- Research ethics
- Rules for scientific writing
- Peer review of scientific articles
- Formulate and write a research plan
- Project management

Examination

- SEM1 - Seminars, 3.0 credits, grading scale: P, F
- PRO1 - Project Work, 3.0 credits, grading scale: P, F
- TEN1 - Exam, 1.5 credits, grading scale: A, B, C, D, E, FX, 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.

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.