



AE2406 Research Methodology

3.0 credits

Forskningsmetod

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

Establishment

Course syllabus for AE2406 valid from Autumn 2010

Grading scale

P, F

Education cycle

Second cycle

Main field of study

Specific prerequisites

Admitted to TWSTM or TEESM. Documented proficiency in English B or equivalent.

Language of instruction

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

Intended learning outcomes

The aim of this course is to provide the necessary tools for students to conduct research in natural and applied science and to present their findings. The course deals with the cycle of research processes and includes conceptualization, information searching, evaluation, analysis, report-writing and oral presentation techniques. It addresses issues such as validity, reliability and ethics.

After completion of the course the students should be able to design a research project. They should be able to decide upon appropriate research methodology. They should be able to conduct a literature hunt. They should be able to write a report in the format which is required by international scientific journals. This entails knowing the basic structure of a scientific paper, what the different parts of a paper should consist of as well as different methods for citation of references and how to write a reference list. It also entails word processing skills and oral presentation skills. Students should know how to submit, on line, a journal article to an international journal. Students should also be able to critically evaluate research papers.

Course contents

The course consists of structured lectures where the students have to prepare prior to the session. Students will be required to submit their preparation material prior to each session. The sessions are compulsory. The students will have a project to design a research project. They will be required to write abstracts to scientific journal papers. They will be required to evaluate the structure of scientific journal papers. They will be required to make a mock online submission of a paper to an international journal. They will work with computer programs for word processing, word and latex, as well as reference programs. They will design the layout of a journal publication.

Examination

- INL1 - Assignment, 3.0 credits, grading scale: P, 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.

Other requirements for final grade

The grade in the course will be based on the student's participation in the structured lectures, the quality of their preparation assignments, exercises and project work.

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.