



# AH204X Degree Project in Railway and Rail Traffic, Second Cycle 30.0 credits

Examensarbete inom järnväg och tågtrafik, avancerad nivå

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 AH204X valid from Autumn 2015

## Grading scale

P, F

## Education cycle

Second cycle

## Main field of study

Built Environment

## Specific prerequisites

In general, the following rules apply:

- For an Engineering degree of 300 credits:

At least 240 credits should be completed, including 30 credits of specialisation at an advanced level within the main field of study, before the degree project may be started.

- For Master degree 120 credits:

A main part of studies, at least 60 credits, should be completed, of which 30 credits of specialisation at an advanced level within the main field of study, before the degree project may be started.

Where at least one of the following courses is included for Master degree:

- AH2026 Railway Traffic - Market and Planning, Basic Course

It is the examiner's responsibility to decide whether the student has the intended specialisation and that the student has completed the main part of the studies before beginning the degree project. An exemption can be granted after hearing by the director of first and second cycle education.

The degree project should normally be carried out during the last semester of the educational programme.

## Language of instruction

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

## Intended learning outcomes

After completed degree project, the student should be able to

1. show knowledge of the disciplinary foundation and best practice of the transport field, advanced understanding in current research and development and advanced method knowledge.
2. demonstrate the ability to search, gather and integrate knowledge and identify the need for additional knowledge, all with a holistic, critical and systematic work approach.
3. demonstrate the ability to identify, analyse, assess and handle complex phenomena, issues and situations also with limited information
4. demonstrate the ability to plan and with adequate methods carry out qualified assignments within given time frames and to evaluate this work
5. demonstrate the ability to develop and evaluate products, processes, systems, methods or technical solutions with respect to people's circumstances and needs as well as society's goals in term of economically, societally and ecologically sustainable development.
6. demonstrate the ability, both orally and in writing, in dialogue with different groups, to clearly account for and discuss the conclusions and the knowledge and arguments on which these are based
7. demonstrate the ability to make assessments considering relevant scientific, social and ethical aspects

8. demonstrate a skill level that is required to participate in research and development or to work independently in other qualified activities

## Course contents

The degree project constitutes part of specialisation within the main field of study, civil engineering and urban management, at the second cycle level, to satisfy the requirements for a degree. This implies that the degree project normally should be carried out within Railway and Rail Traffic science.

## Disposition

The course is designed as a delineated research project.

The structure of the course can include, amongst other things, literature studies, problem formulation, collection and compilation of data, and analysis.

The degree project should be presented at a seminar. The degree project should be written and presented in Swedish or English. A summary should be included in both languages. The Master thesis will be checked for plagiarism.

## Course literature

Relevant literature to be able to carry out the degree project.

## Examination

- XUPP - Examination Assignment, 30.0 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.

The degree project should normally be carried out under the program's last semester. To pass the degree project, the performance must not be unsatisfactory for any of the expected learning outcomes of the course.

## Other requirements for final grade

An approved degree project that has been presented at a seminar.

## 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.