AH2031 Railway Signalling System - Project Planning 7.5 credits

Järnväg signalteknik - projektering

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

Establishment

Course syllabus for AH2031 valid from Spring 2011

Grading scale

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

Education cycle

Second cycle

Main field of study

The Built Environment

Specific prerequisites

At least 120 credit academic studies and documented proficiency in Swedish B and English A or equivalent.

Special Qualifications:

AH2029 Railway Signalling System, bc or equivalent.

Language of instruction

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

Intended learning outcomes

The course aims at providing students with basic knowledge of planning and design of signal safety systems for rail traffic through them to:

- Explain the need for a signal safety system
- Understand the various components and functions of a signal safety system
- Designt a secure signaling safety system
- Optimize the system for increased capacity

Course contents

- General principles of signal safety system design
- Signal and railway operation principles
- Side protection, front part protection and rail track circuits
- Shunting movements, interlocking and point switches
- ATP: function, design and validation
- Road crossing protection, functionality and design
- Signaling systems for higher capacity

Disposition

The course consists totally of twelve days of lectures by the basic knowledge needed to understand the subject. This is supplemented with exercises and project assignments to provide applications on the subject. Examination is five accepted project reports.

The course can partly be read at a distance.

Course literature

Course compendium

Examination

- PRO1 - Project, 7.5 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.

PRO1 - Project, 7,5 credits, grade scale: A, B, C, D, E, FX, F

Other requirements for final grade

A mandatory project assignment equivalent to 7,5 cr with grading scale A-F.

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.