



AH2029 Railway Signalling System 7.5 credits

Järnväg signalteknik - signalsystem

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

Establishment

Course syllabus for AH2029 valid from Autumn 2010

Grading scale

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

Education cycle

Second cycle

Main field of study

Specific prerequisites

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

Special Qualifications:

AH2026 Railway Traffic - Market and Planning, bc, or equivalent experience.

Language of instruction

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

Intended learning outcomes

After the course the student shall be able to:

- Explain the need of a signaling safety system for the railway
- Explain the interaction between trains, railway and train traffic control centers
- Describe the difference between current and future signaling systems
- Explain the different design of a signaling system dependent on infrastructure
- Design a reliable system for a railway line with mixed traffic
- Calculate the cost of a designed signaling safety system
- Describe the current law and regulations in the signaling safety system

Course contents

- General principles of railway control system
- Consequences in the society of a control system
- Basic principles of interlocking
- History
- Legislation
- Costs and expenditure
- Lifetime
- Standardisation
- Different types of ATP-systems
- The Swedish signaling system
- Rail traffic capacity
- Time tables
- Signaling systems for mass transit systems

Disposition

The course consists totally of twelve days of lectures by the basic knowledge needed to understand the subject. This is supplemented with exercises, project assignments and field trips to provide applications on the subject. Examination is a written exam. The course can partly be read at a distance.

Course literature

Examination

- TEN1 - Examination, 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.

TEN1 - Examination, 7.5 credits, grade scale: A, B, C, D, E, FX, F

Other requirements for final grade

A mandatory written examination 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.