AH1025 Public Transport Systems, Buses and Rail, BC 7.5 credits

Kollektivtrafiksystem, bussar och spårtrafik, gk

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 AH1025 valid from Autumn 2021

Grading scale

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

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

Active participation in course AH1030 Urban Development and Transport System.

Language of instruction

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

Intended learning outcomes

Students who have taken the course should be familiar with bus and rail transport's role in society, their capabilities and their limitations. The course provides a basic knowledge of the conditions, design, management and control of a public transportation system. Environmental impact, market, vehicle systems, planning, financing and organization are treated on a general level. The exercises illustrate the design of a public transport system, using modern planning tools, traffic planning and implementation of the traffic system in an urban region

The students should after the course:

- be able to discuss the role of public transport and market
- describe the customer survey and valuation methods and the order of time values and similar
- explain the various steps in the planning of public transport
- describe the properties of different public transit systems
- be able to make realistic estimates about the capacity of the various bus and train systems
- account for good and poorer conditions for public transport in geographic planning
- describe the design of various types of infrastructure; stops, bus lanes, track and other infrastructure for bus and rail
- be able to describe how public transport in general is organized, its procurement and financing
- be able to outline and explain the design and purpose of IT solutions for traffic control and passenger information
- be able to describe public transport’s own environmental impact

Course contents

The course provides a basic knowledge of the condition, design, management and control of a public transportation system. Environmental impact, market, vehicle systems, planning, financing and organization are treated on a general level.

Examination

- PRO1 - Project exercise, 3.5 credits, grading scale: P, F
- TEN1 - Written Examination, 4.0 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.

Particular examination, written or oral exam, administered in the middle of the course

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.