AH1021 Urban and Traffic Planning, Basic Course 7.5 credits

Stads- och trafikplanering, grundkurs

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

Establishment

Grading scale

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

Education cycle

First cycle

Main field of study

The Built Environment, Technology

Specific prerequisites

completed upper secondary education including documented proficiency in Swedish corresponding to Swedish B, English corresponding to English A. For students who received/will receive their final school grades after 31 December 2009, there is an additional entry requirement for mathematics as follows: documented proficiency in mathematics corresponding to Mathematics A.

Language of instruction

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

Intended learning outcomes

The course provides a basic overview of the theory and methods of analysis and planning of transport systems and their interaction with the urban environment. The course provides practical training in the production of a city plan document which will be designed in ArcGIS of comprehensive plan including building and transport. It also aims to improve the ability to work in groups with traffic planning, design and presentation of plans and solutions regarding traffic system and urban development. In the course the student will:

- Have acquired a basic understanding of city building and features a historical perspective with emphasis on the relationship between traffic and buildings.
- Understand in-depth planning concepts, theories, methods and objectives of urban planning during the 1900s based on the Swedish and international examples.
- Be able to apply the methodology for the production of programs, planning assumptions, analysis, design and evaluation of network and traffic facilities for different types of traffic.
- Able to produce a formal plan for a district with the use of ArcGIS software
- Have acquired a basic understanding of the relationship between transportation technology development, location and urban development.
- Identify traffic impacts on the built-up area
- Have acquired basic skills in an educational way to present and argue for the proposed new city plan.

Course contents

- Methods for analysis, design and evaluation of traffic facilities.
- Overall context of transportation planning
- Methods for goal analysis, design and evaluation of traffic network & facilities for different modes of transport.
- Traffic calming.
- Calculation of environmental impact of traffic including noise an pollution
- Historic overview of the relationship between transport and urban localisation and development.
- Excursion in the Stockholm region reviewing areas from different periods and the relationship between land use, urban form and physical planning.
- Short exercises with application of different theories and methods.
- Project work with development of a town plan for part of a city using the ArcGIS software.

Course literature

- Kurskompendium i trafikplanering samt utdrag ur planeringsanvisningar och internationell litteratur ska läggas på BILDA.
- Lugna gatan (Kommunförbundet 1998)
- TRAST;Trafik för en attraktiv stad (Vägverket och Kommunförbundet 2004)
- Vägar och gators utformning (VGU 2004) Vägverket och Kommunförbundet.
- Stadsplanera (Boverket 2003)
- Stadsplanering i Sverige (Åström 2003)
- Trafiken i den hållbara staden (Christer Hydén 2008)

Examination

- ÖVN1 - Exercises, 4.5 credits, grading scale: P, F
- TEN1 - Examination, 3.0 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.

If the course is discontinued, students may request to be examined during the following two academic years.

- TEN1 - Examination, 3.0 credits, grade scale: A, B, C, D, E, FX, F
- ÖVN1 - Exercises, 4.5 credits, grade scale: P, F

Other requirements for final grade

Written examination (TEN; 3 cr) and project work (ÖVN; 4,5 cr).

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.