Traffic Infrastructure, Safety and Planning

Programme course

6 credits

Trafikinfrastruktur, säkerhet och planering

TNSL16

Valid from: 2017 Spring semester

Determined by
Board of Studies for Industrial Engineering and Logistics

Date determined
2017-01-25

Main field of study
Logistics

Course level
First cycle

Advancement level
G1X

Course offered for
- Air Transportation and Logistics
- Civic Logistics

Entry requirements
Note: Admission requirements for non-programme students usually also include admission requirements for the programme and threshold requirements for progression within the programme, or corresponding.

Prerequisites
Community Planning

Intended learning outcomes
The course aims at presenting basic knowledge on the infrastructure of the traffic system, its constitution and functionalities, safety and about planning of infrastructure. The course is focused on road traffic and transportation of persons. After the course a student shall

- be able to describe the different steps in the planning process for a public state roads.
- have knowledge on the conditions and methods used for planning public transport and pedestrian and bicycle traffic
- have knowledge of basic definitions and approaches used in road traffic planning
- be able to evaluate a spatial plan based on given planning requirements and forecasts
- be able to describe characteristics, functionalities and limitations of the major types of models used for traffic planning.
- understand a sustainable transporation system
- have basics knowledge of traffic safety
- understand the implementation and safety impact from road design
- apply traffic risk assessment analysis in a case study

Course content
Introduction to urban and traffic planning. Traffic engineering issues. Traffic safety. Traffic calming. Traffic risk assessment analysis. Evaluation of traffic systems. Traffic forecasts. Sustainable transport systems.

Teaching and working methods
The course contains a number of lectures, where several guest lectures are taking part. An important part of the course consists of three project tasks, which party are to be solved by use of commercial software.
The course is given during both study periods of the spring semester.

Examination

UPG2	Project assignments	3 credits	U, 3, 4, 5
UPG1	Hand-in assignments	3 credits	U, 3, 4, 5

Grades
Four-grade scale, LiU, U, 3, 4, 5

Other information
Supplementary courses:
Planning of public transport and railway traffic

Department
Institutionen för teknik och naturvetenskap

Director of Studies or equivalent
Erik Bergfeldt

Examiner
Ghazwan Al-Haji

Education components
Preliminary scheduled hours: 64 h
Recommended self-study hours: 96 h

Course literature
Hydén, C. (red.) Trafiken i den hållbara staden, Studentlitteratur, senaste upplagan. Kompletterande material som publiceras på Kursplatsen.

Common rules

Regulations (apply to LiU in its entirety)

The university is a government agency whose operations are regulated by legislation and ordinances, which include the Higher Education Act and the Higher Education Ordinance. In addition to legislation and ordinances, operations are subject to several policy documents. The Linköping University rule book collects currently valid decisions of a regulatory nature taken by the university board, the vice-chancellor and faculty/department boards.

LiU's rule book for education at first-cycle and second-cycle levels is available at http://styrdokument.liu.se/Regelsamling/Innehall/Utbildning_pa_grund-_och_avancerad_niva.