



Course syllabus

Trafiksäkerhet Traffic Safety

VTVN20, 7,5 credits, A (Second Cycle)

Valid for: 2023/24

Faculty: Faculty of Engineering, LTH

Decided by: PLED V

Date of Decision: 2023-03-21

General Information

Elective for: V4-tv

Language of instruction: The course will be given in English on demand

Aim

The purpose of the course is to give an in depth knowledge about traffic safety and with a scientific approach give a system view of the area. The traffic safety problem is analysed on an international as well as a national level. Principles and overall measures are discussed. On a local level the course brings up aspects as traffic safety measures, evaluation conditions for different road users and means of transport.

Learning outcomes

Knowledge and understanding

For a passing grade the student must

- Have knowledge of factors affecting traffic safety on a general level.
- Have knowledge of factors affecting the number of accidents and the security of accidents.
- Have knowledge about which measures can be taken to improve traffic safety in different situations and on different locations.
- Have knowledge of different measurement methods for traffic safety on a general as well as location based level.
- Have knowledge of how different authorities work with the traffic safety problem
- Have understanding of how different road users need can vary.
- Have understanding of how different means of transport differ regarding traffic safety.

- have understanding of how road user's behaviour may change with different types of measures.

Competences and skills

For a passing grade the student must

- Have the ability to analyze the traffic safety problem based on the dimensions Risk-Consequence-Exposure.
- Have the ability to identify locations and situations with lacking traffic safety.
- Have the ability to propose measures to increase traffic safety.
- Have the ability to write technical and scientific reports built on relevant theories.
- Have the ability to discuss and orally present the results of the project assignments.

Judgement and approach

For a passing grade the student must

- Have a system view of traffic safety effects on different levels and for different road users and modes of transport.
- Have the ability to discuss traffic safety for a location based on its conditions.
- Have the ability to assess and relate to traffic safety investigations and value the quality of collected data and the conclusions that can be drawn from it.

Contents

The course includes lectures, exercises, field studies and project assignments. The student works with traffic safety on an overall as well as on a detailed level. Lectures give a solid theoretical base and understanding of the area. A group project assignment gives the students the possibility to deepen their knowledge in a specific area of the field. This project assignment is presented in a written reports as well as in an oral presentation and the teachers provide formative as well as summative feedback during the course.

Examination details

Grading scale: TH - (U,3,4,5) - (Fail, Three, Four, Five)

Assessment: For a passing grade: approved written tests, approved exercises, approved project work, approved oral presentation and presence at the obligatory parts are needed. The grade is awarded on the basis of the written tests and the project work report.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

Admission

Admission requirements:

- VTTF01 Traffic Engineering

Assumed prior knowledge: VTVN15 Traffic Engineering and Analysis

The number of participants is limited to: No

The course overlaps following course/s: VTT141, VTTF05, VTTF10

Reading list

- Englund, Gregersen, Hydén, Lövsund & Åberg: Trafiksäkerhet, en kunskapsöversikt. Studentlitteratur, 2007, ISBN: 9789144050386.

- Elvik, Rune: The power model of the relationship between speed and road safety. TØI, 2009, ISBN: 978-82-480-1001-2.
- European Transport Safety Council: Traffic safety performance indicators. 2001, ISBN: 90-76024-11-1.
- Stigson, H. & Kullgren, A.: Fotgängares risk i trafiken, Analys av tidigare forskningsrön. 2010.
- WHO: Global Status Report on Road Safety 2013. 2013, ISBN: 978-92-4-156456-4.
- Höye, Elvik, Sörensen & Vaa: Trafikksikkerhetshåndboken. TØI, Oslo, Norge, 2013.

Contact and other information

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