

Guidelines for safety when working on and in electric vehicles, 2,5 HE credits

Riktlinjer för säkerhet vid arbete på och i elfordon, 2,5 hp

Established: 2020-12-17

Established by: Department of Engineering Science

Applies from: H21

Learning outcomes

Knowledge and understanding

The student must, after completing the course, be able to demonstrate:

- an understanding of the risks associated with working with high voltage and current in electric vehicles
- knowledge and understanding of electrical installations related to electric vehicles
- knowledge of the chemical risks that battery leakage can cause
- knowledge of creating a risk-free working environment when working with electric drive systems for electric vehicles

Competence and skills

The student must, after completing the course, be able to demonstrate the ability:

- to perform risk analysis in work with electricity in electric vehicles and their surroundings

Judgement and approach

The student must, after completing the course:

- make assessment with regards to safety guidelines prepared by, among others, authorities

Entry requirements

Degree of Bachelor of Science in mechanical engineering or equivalent. Additionally the Bachelor of Science degree must be comprised of a minimum of 5 HE credits in programming and 15 HE credits in mathematics. In addition, verified knowledge of English corresponding to the course English B/English 6 in the Swedish Upper Secondary School or equivalent.

The forms of assessment of student performance

Individual written exam.

Course contents

The course presents the electrical safety guidelines required for work on and in electric vehicles. The course focuses on the creation of a risk-free environment with electric drive systems, electrical safety, maintenance of electrical installations and provides knowledge about the chemical risks that the use of batteries can entail.

Other regulations

Course grading: Failed or Passed

Course language: The teaching is conducted in English.

General rules pertaining to examination at University West are available at www.hv.se.

If the student has a decision/recommendation on special support due to disability, the examiner has the right to examine the student in a customized examination form.

Cycle

First cycle

Progressive specialization

G1F - first cycle, has less than 60 credits in first-cycle course/s as entry requirements

Main field of study

Electrical Engineering