



CH106V Noise and Vibrations in Working Life - risk assessments and development 4.5 credits

Buller och vibrationer i arbetslivet - riskbedömning och utveckling

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 CH106V valid from Autumn 2023

Grading scale

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

Education cycle

First cycle

Main field of study

Technology and Health

Specific prerequisites

120 credits in technical science, natural science, medical science (incl. Audiologist, Physiotherapist) or human resources science. Alternatively, at least 2 years of professional experience in work environment development. English B/6

Language of instruction

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

Intended learning outcomes

The overall aim of the course is to give the student theoretical and practical knowledge in general about how work environment development should be carried out, how work accidents can be prevented, how ergonomics can be assessed and developed, and specifically how noise and vibrations in the work environment can affect health and performance, and how these two factors can be measured, risk assessed and managed to reduce the risks. After completing the course, the student must be able to:

- Give examples of where in working life noise and vibrations occur.
- Describe how noise and vibration can affect health.
- Carry out exposure measurements and risk assessments of noise and vibrations according to current standards.
- Explain how noise and vibration risks can be remedied and give examples of specific measures in different operations (see objective 1).

Course contents

- Noise
- Vibrations
- Acute and long-term health effects
- Work environment rules in the area
- Technical measurements of noise and vibrations
- Limit values and risk assessment
- Custom actions
- Project work – risk assessment noise or vibration

The course is conducted as teacher-led distance learning with recorded video lectures and video lessons (Zoom) with demonstrations of instruments and seminars (webinars) with discussion of video material and written material studied before the seminars. Labs, using freely downloadable apps, are carried out at a place of your choice and the results are discussed at the seminars. An own project work in which the student carries out an own risk assessment of noise is carried out independently in a workplace or other activity space (e.g. sports hall). The project work is presented in writing and orally (Zoom).

Examination

- LABA - Laboratory work, 1.0 credits, grading scale: P, F
- PRO1 - Project work, 1.0 credits, grading scale: P, F
- SEM1 - Seminars, 1.0 credits, grading scale: P, F
- TEN1 - Written exam, 1.5 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.

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.