



CH2003 Evaluations and Measures of the Acoustic Work Environment and Vibrations 4.5 credits

Bedömningar och åtgärder av vibrationer och den akustiska arbetsmiljön

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

On 2020-04-22, the Head of School of XXX has decided to establish this official course syllabus to apply from the autumn semester 2020 (registration number C-2020-0791).

Grading scale

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

Education cycle

Second cycle

Main field of study

Technology and Health

Specific prerequisites

Academic first degree, 180 higher education credits in engineering or natural sciences or equivalent education. 15 credits in mathematics or statistics.

Language of instruction

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

Intended learning outcomes

The overall aim is to provide knowledge about the impact on health and performance from the acoustic work environment and from vibrations, and how to improve these factors.

By the end of the course, the students should be able to:

1. Describe, exemplify and explain how work related factors within the field of noise and vibrations affect safety, health, wellbeing, and performance.
2. Describe and reflect on theories about mechanisms linked to noise and vibrations in causing work-related symptoms, disorders and performance effects.
3. Perform exposure measurements and risk assessments relating to noise and vibrations.
4. Propose work environment improvements, based on sociotechnical (human, technology and organisation) perspectives, concerning noise and vibrations.
5. Critically evaluate risk assessments and measurements including relevant work environment regulations.

Course contents

- Noise
- Vibrations
- Theories on acute and long term health effects
- Methods for exposure measurement and risk assessment
- Work environment regulations in the field
- Intervention strategies

Examination

- LAB1 - Laboratory work, 1.0 credits, grading scale: P, F
- TEN1 - Written exam, 2.5 credits, grading scale: A, B, C, D, E, FX, F
- ÖVN1 - Exercises, 1.0 credits, grading scale: P, 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.

Intended learning outcomes number 1 is examined in TEN1 and ÖVN1.

Intended learning outcomes number 2 is examined in TEN1 and ÖVN1.

Intended learning outcomes number 3 is examined in LAB1 and ÖVN1.

Intended learning outcomes number 4 is examined in TEN1 and ÖVN1.

Intended learning outcomes number 5 is examined in ÖVN1.

Other requirements for final grade

Requirements for final grade: Passed written and oral presentation of assignments and active participation in exercises and laboratory work. The final grade (A-F) is decided from the results of the final examination.

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.