



CH2002 Evaluation and Measures of Biomechanical Workload 3.0 credits

Bedömningar och åtgärder av biomekaniska arbetskrav

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 CH2002 valid from Autumn 2019

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 biomechanical work demands, 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 biomechanical load affect safety, health, wellbeing, and performance.
2. Describe and reflect on theories about mechanisms linked to the above mentioned factors in causing work- related symptoms, disorders and performance effects.
3. Describe and reflect on theories about sociotechnical (human, technology and organisation) perspectives linked to the above mentioned factors
4. Perform exposure measurements and risk assessments relating to the above mentioned factors.
5. Propose work environment improvements concerning the above mentioned factors.
6. Critically evaluate risk assessments and measurements including relevant work environment regulations.

Course contents

- Anthropometry
- Biomechanics and biomechanical calculations
- Methods for exposure measurement and risk assessment of MSDs
- Work environment regulations in the field
- Intervention strategies

Examination

- TEN1 - Exam, 1.5 credits, grading scale: A, B, C, D, E, FX, F
- ÖVN1 - Exercises, 1.5 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.

Other 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.