



CH203V Design of Ergonomic Products 2.5 credits

Design av ergonomiska produkter

This is a translation of the Swedish, legally binding, course syllabus.

Establishment

Course syllabus for CH203V valid from Spring 2024

Grading scale

P, F

Education cycle

Second cycle

Main field of study

Technology and Health

Specific prerequisites

University education 120 credits. Alternatively, 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 for the students to be able to contribute to the design of better work environments/products that can also reduce the risk of personal injury. Through practical training in the subject, students gain basic knowledge of ergonomics and insight into its importance in product development.

After completing the course, students should be able to:

1. In your own words, explain basic concepts and give an account of areas such as, for example, human possibilities and limitations, biomechanical load ergonomics as well as risk management- and product development methods.
2. Practical use of Borg's estimation scales and the ErgoArmMeter exposure measurement method.
3. In a structured way, evaluate a product from an ergonomic perspective, and propose improvement measures.
4. Document and communicate the results of your own evaluation and justify your own improvement proposals - in writing and orally - and give feedback on the work of others in a structured way.

Course contents

The seminars provide an overview of the subject with facts and applied examples.

These cover, among other things: man's possibilities and limitations, anthropometry, load ergonomics as well as risk management and product development methods.

A practical experiment is carried out where the focus is on using Borg's estimation scales of physical load and the exposure measurement method ErgoArmMeter.

A submission task is carried out individually with the aim of evaluating and proposing improvements to the ergonomics of an existing product. The task includes presenting one's result, as well as giving and receiving feedback to/from other students.

Examination

- SEM1 - Seminars, 1.0 credits, grading scale: P, F
- INL1 - Hand in assignment, 1.0 credits, grading scale: P, F
- TEN1 - Home exam, 0.5 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.

If the course is discontinued, students may request to be examined during the following two academic years.

* In the event of absence from one seminar in the SEM1 module can, if the examiner deems it so, a replacement task may be assigned. In that case, this could be to submit a written reflection on the material studied before the respective seminar.

Assignment (INL1, 1.0 credits) grading scale: P/F, examines learning objectives 2, 3.

Seminars (SEM1, 1.0 credits) with compulsory attendance, grading scale P/F, examines learning objectives 1 – 4

Exam (TEN1, 1.0 credits) grading scale: P/F, examines learning objectives 1

The final grade is based on all modules based on the P/F grading scale.

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.