



FHN3001 Ergonomics - Overview 7.5 credits

Ergonomi - en översikt

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 FHN3001 valid from Autumn 2012

Grading scale

Education cycle

Third cycle

Specific prerequisites

Accepted for doctoral studies at KTH or KI.

Language of instruction

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

Intended learning outcomes

The overall aim with the course is to give the participants knowledge and understanding of the field of ergonomics and its sub domains. This includes definitions, aims and forms of

performing ergonomics work and research. The course also includes methods for ergonomics improvements. The aim of the course is also to give the participants deeper knowledge and understanding of the role of ergonomics in promoting safety, health, wellbeing and system performance.

The course participants shall demonstrate knowledge and understanding about:

- Definitions, theories and models in the field
- Abilities and needs of the human
- Different types of ergonomics improvement

The course participants should show skills and abilities to:

- Use methods to analyze and assess ergonomic design of work, workplaces and environments
- Use the methods and analysis models that are presented in the course
- Propose changes in order to improve work conditions and health for individuals with simultaneous consideration of organizational performance

The course participants should show ability to evaluate and have a reflected view through:

- Critically review, analyze and evaluate scientific literature in the field
- Analyze and assess results from studies in the field and summarize results orally and in written form
- Evaluate actions to improve work conditions and system performance

Course contents

- Ergonomics as a discipline
- Physical work environment
- Cognitive ergonomics
- Work organization
- Humans-technology-organization
- Factors influencing productivity
- Ergonomic improvements
- Interventions and interactive research

Disposition

Lectures and seminars.

Course literature

Helander, M, **A Guide to Human Factors and Ergonomics**, 2nd Edition, Boca Raton 2006, Taylor & Francis.

Wilson, J H; Corlett, E N (Editors), **Evaluation of Human Work**, 3rd Edition, Boca Raton 2005, Taylor & Francis.
Utdelat material och artiklar.

Examination

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.

Hand-in assignments, participation in seminars and review of research articles.

Other requirements for final grade

All course parts performed satisfactory.

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.