Product Ergonomics

Programme course

6 credits

Produktergonomi

TMKT97

Valid from: 2017 Spring semester

Determined by
Board of Studies for Mechanical Engineering and Design

Date determined
2017-01-25

Offered for the last time
Spring semester 2024

Replaced by
TMPR06

Main field of study
Product Development, Mechanical Engineering

Course level
First cycle

Advancement level
G2F

Course offered for
- Design and Product Development

Entry requirements
Note: Admission requirements for non-programme students usually also include admission requirements for the programme and threshold requirements for progression within the programme, or corresponding.

Prerequisites
Mechanics, Design and Product Development

Intended learning outcomes
After the course the student should be able to:
- use some ergonomics theories and principles in product development
- use some qualitative and quantitative methods to understand the user's needs and requirements
- assess and evaluate the consequences of ergonomics in products
- analyse and examine the role of ergonomics by discussing and evaluating different products and product development questions
- communicate with other disciplines, acting professionally as engineer in a multidisciplinary context and presenting product concepts in a credible way.

Course content
The role of ergonomics in products and product development. User profile and task analyses. Qualitative and quantitative methods. The product and the context. Ergonomics (psychosocial and work organizational environment, physical workload, physical and chemical factors, man – technology system, safety – risk, laws). Communication with other disciplines and development and presentation of credible product concepts.

Teaching and working methods

The course runs throughout the fall semester. During the first study period mainly basic theoretical knowledge is acquired. The tuition is then structured around weekly themes where different knowledge areas are addressed in lectures, through discussion assignments, practical application exercises, assignments and seminars. Knowledge is applied and deepened by a product development project work that runs over both study periods. During this project a collaboration with students taking an occupational therapist at the Faculty of Health Sciences at Linköping University is included, there the role of the engineer is practiced.

Examination

PRA1	Project assignments	2 credits	U, G
UPG8	Assignments	1 credits	U, G
TEN2	Written examination	3 credits	U, 3, 4, 5

Grades

Four-grade scale, LiU, U, 3, 4, 5

Department

Institutionen för ekonomisk och industriell utveckling

Director of Studies or equivalent

Peter Hallberg

Examiner

Martina Berglund

Course website and other links

Education components

Preliminary scheduled hours: 55 h
Recommended self-study hours: 105 h

Course literature

Arbete och teknik på människans villkor (2010). Prevent, Stockholm, utdelat material och vetenskapliga artiklar.

Common rules

Regulations (apply to LiU in its entirety)

The university is a government agency whose operations are regulated by legislation and ordinances, which include the Higher Education Act and the Higher Education Ordinance. In addition to legislation and ordinances, operations are subject to several policy documents. The Linköping University rule book collects currently valid decisions of a regulatory nature taken by the university board, the vice-chancellor and faculty/department boards.

LiU's rule book for education at first-cycle and second-cycle levels is available at http://styrdokument.liu.se/Regelsamling/Innehall/Utbildning_pa_grund-_och_avancerad_niva.