

Work Science, basic course

Programme course

6 credits

Arbetsvetenskaplig grundkurs

TMIA11

Valid from:

Determined by
Board of Studies for Mechanical
Engineering and Design

Date determined

Main field of study

Mechanical Engineering

Course level

First cycle

Advancement level

G1X

Course offered for

- Applied Physics and Electrical Engineering, M Sc in Engineering
- Applied Physics and Electrical Engineering - International, M Sc in Engineering

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.

Intended learning outcomes

The goal of this course is that the students should gain insight in and basic knowledge about ergonomic issues, their relation to design of technology, and understanding of human needs and abilities at work. After finished course, the students should be able to:

- apply some ergonomics theories and principles about the design of work and technology
- analyse work situations from a work science perspective
- use some quantitative and qualitative methods to evaluate work and workplaces
- propose improvements of existing workplace design, technical solutions and work organisation

Course content

1. Socio-technology, systems theory and dynamic models
2. Planned change. Work environment and economy
3. Individual, group and organization. Roles
4. Qualitative and quantitative methods
5. Labor market and laws and regulations
6. Competence and learning. Gender
7. Physical work environment factors; light, noise. Perception and cognition

Teaching and working methods

The course consists of lectures, seminars and a project presented in a report.

Examination

UPG2	Assignments	3 credits	U, G
TEN1	Written examination	3 credits	U, 3, 4, 5

The course will have a written examination, and demands active participation in seminars and project.

Grades

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

Department

Institutionen för ekonomisk och industriell utveckling

Director of Studies or equivalent

Eva Lovén

Examiner

Eva Lovén

Education components

Preliminary scheduled hours: 22 h

Recommended self-study hours: 138 h

Course literature

Arbete och teknik på människans villkor, upplaga 3, Prenter, Stockholm samt forskningsartiklar.