



LTH

FACULTY OF
ENGINEERING

Course syllabus

Arbetsmiljö, hälsa och säkerhet Working Environment, Occupational Health and Safety

MAMF21, 7,5 credits, G2 (First Cycle)

Valid for: 2023/24

Faculty: Faculty of Engineering, LTH

Decided by: PLED C/D

Date of Decision: 2023-04-18

General Information

Main field: Architecture.

Main field: Technology.

Compulsory for: R2

Elective for: C4, D4, E4, I4, M4, RH4, MPRR1

Language of instruction: The course will be given in English on demand

Aim

The aim of the course is for students to:

- acquire fundamental knowledge that will enable them to consider work science aspects in their future places of work.
- understand the interaction of work environment factors of a technological, economic, medical, psychological, and sustainable nature.
- acquire basic skills in identifying and solving work science problems, according to the sustainability goals in Agenda 2030, in existing settings as well as in the design of new work organizations, jobs and workplaces.

Learning outcomes

Knowledge and understanding

For a passing grade the student must

understand and explain:

- general concepts and theories used to describe and analyse work environments
- how people and work are affected

- definitions of magnitude, their measurement and evaluation
- optimal levels for comfort and how prospective limits are specified
- organizational and technical principles for solving problems
- how motivation, self-control, influence, work management climate, stimulation, commitment, camaraderie, job requirements, strain, groups, group process, power, conflicts and mental health effect the work environment.
- how combinations of different factors influence people and work.
- how work environment is regulated according to labour market legislation, regulations and contracts.

Competences and skills

For a passing grade the student must

Systematically survey, analyse and suggest improvements in existing work environments as well as design new work organizations, jobs and workplaces with respect to:

- health risks
- conditions that promote health and sustainability
- criteria for comfort, satisfaction and personal development
- different production conditions and demands

Judgement and approach

For a passing grade the student must

Present the work carried out in a reflective and analytical way in the written project report..

Contents

The course is divided into the following modules, which are studied on one's own with the help of the web based course material:

1. Psychosocial work environment
2. The organisation of production and work
3. Physical load
4. Physical factors
5. Chemical health risks in working life
6. Human-technology systems
7. Safety and risk
8. Methods
9. Design processes
10. Occupational injuries
11. Work environment and economics
12. Work environment legislation
13. Standardisation

There will be possibilities to ask questions and discuss the material with the course coordinator. The second part of the course will comprise of individual work on a case including documentation and analysis of a work environment, a proposal of suggested improvements based on knowledge acquired from the web based course material and current scientific knowledge, and an approved written report.

Examination details

Grading scale: TH - (U,3,4,5) - (Fail, Three, Four, Five)

Assessment: For a passing grade the student must hand in approved summaries of all modules in the web based course material, and receive a passing grade on the written case report.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

Admission

The number of participants is limited to: No

The course overlaps following course/s: MAM203, MAMF20

Reading list

- Work and technology on human terms. Web based course material.
- Additional course literature such as scientific articles and other texts.
- Att utforma arbete och teknik på människans villkor.

Contact and other information

Course coordinator: Christina Isaxon, Christina.isaxon@design.lth.se

Examinator: Christina Isaxon, christina.isaxon@design.lth.se

Course homepage: <http://www.eat.lth.se>