

SYLLABUS

Project in Mechanical Engineering C 7.5 credits M0024T

Projektkurs C

Course syllabus admitted: Autumn 2023 Sp 1 - Present

**DECISION DATE
2021-02-17**

Project in Mechanical Engineering C 7.5 credits M0024T

Projektkurs C

First cycle, M0024T

Education level	Grade scale	Subject	Subject group (SCB)
First cycle	G U 3 4 5	Maskinteknik	Mechanical Engineering

Main field of study

Energy Engineering

Entry requirements

In order to meet the general entry requirements for first cycle studies you must have successfully completed upper secondary education and documented skills in English language and Basic knowledge in mathematics, physics, chemistry, material science, solid mechanics, project work, calculus and electronics. It is also beneficial if the student has basic knowledge in e.g. hydro mechanics, thermodynamics, machine components, manufacturing, experimental techniques and computer aided design.

Selection

The selection is based on 1-165 credits.

Course Aim

The student shall after passing the course be able to:

1. Knowledge and understanding

- plan and carry out a larger development project including several collaborating projects with focus on sustainable development
- show basic knowledge about sustainability considerations (including equality) in engineering

2. Skills and abilities

- plan, develop, realise and operate technical systems in a sustainable way
- use product development methods
- apply system perspective in technical problem solving
- plan collaboration between different competence areas
- show ability in oral and written communication
- describe the Swedish national equality goals
- give examples of prerequisites for equality in the professional life

3. Ability of assessment and attitude

- apply their knowledge and experience to carry out sustainable technical development
- search for and survey any additional information required to enable technical development
- show ability to work in a larger team
- show the ability to evaluate which sustainability aspects (including equality) that are necessary to consider for technical development

Contents

The course is carried out in projects and the students work in teams with product development. The work involves all stages from idea to operating the developed system. Each team work on individual subprojects which are also connected via joint activities and deliverables. Each subproject is allocated a supervisor that will support and provide structure for the students' knowledge development. The work is presented in a technical report and through oral presentation.

Realization

Each course occasion's language and form is stated and appear on the course page on Luleå University of Technology's website.

The course is mainly based on project work. A few lectures are also given to provide theoretical framework in specific areas of project work.

Examination

If there is a decision on special educational support, in accordance with the Guideline Student's rights and obligations at Luleå University of Technology, an adapted or alternative form of examination can be provided. The project work is evaluated in several stages to enable the student to (individually and in group) show the abilities in different parts of the work. The parts that are evaluated includes idea generation, concept generation, detailed design, planning, project results and written and oral presentations.

Final grade is based on the students' participation and contribution to the development project. The final grade is a weighted average of the grades for the different parts.

Unauthorized aids during exams and assessments

If a student, by using unauthorized aids, tries to mislead during an exam or when a study performance is to be assessed, disciplinary measures may be taken. The term "unauthorized aids" refers to aids that the teacher has not previously specified as permissible aids and that may assist in solving the examination task. This means that all aids not specified as permissible are prohibited. The Swedish version has interpretative precedence in the event of a conflict.

Transition terms

2113

Course offered by

Department of Engineering Sciences and Mathematics

Modules

Code	Description	Grade scale	Cr	Status	From period	Title
0002	Project work	G U 3 4 5	7	Mandatory	A20	
0003	Sustainability module	U G#	0.5	Mandatory	A20	

Study guidance

Study guidance for the course is to be found in our learning platform Canvas before the course starts. Students applying for single subject courses get more information in the Welcome letter. You will find the learning platform via My LTU.

Last revised

by Head Faculty Programme Director Niklas Lehto 2021-02-17

Syllabus established

The syllabus was established by the Department of Applied Physics and Mechanical Engineering 2007-02-28, and remains valid from autumn 2007.