1 Name, Scope and Level of the Course
The course is provided by the University of Skövde and is named Engineering Project II: Machine G1F. It comprises 9 credits and is on basic level. The level of progression of the course is G1F.

2 Objectives
After completed course the student should be able to:

- apply previously acquired skills in a cross-functional engineering projects,
- define, plan, implement, follow up and document projects and communicate the work process and its results,
- develop products and production equipment, taking into account sustainable development, including gender issues,
- use methods and tools to analyze and critically assess the work done in order to ensure quality,
- for a given geometry make a redesign by use of a finite element simulation,
- assess the reasonableness of a finite element simulation.

3 Course Content
The course aims for students to gain experience, based on their specific skills, working in an interdisciplinary project with the product development process (from a user perspective to a verified production).

The course main element is a project, which will include questions based on design and product requirement as well as mechanical engineering and production engineering aspects. The introductory lectures and exercises will focus on how to work in projects in means of management, models, planning and implementation.

The mechanical engineering parts include numerical simulations with finite element method. Specifically, a redesign of a given structure will be done.

4 Forms of Teaching
The teaching comprises lectures, group assignments, supervision and laboratory sessions.

The teaching is conducted in Swedish. Some teaching in English may occur.

5 Examination
The course is graded A (Excellent), B (Very good), C (Good), D (Satisfactory), E (Sufficient) or F (Fail).

Registration of examination results:

<table>
<thead>
<tr>
<th>Name of examination</th>
<th>Credits</th>
<th>Grading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project report¹</td>
<td>8 credits</td>
<td>A/B/C/D/E/F</td>
</tr>
<tr>
<td>Written assignments</td>
<td>1 credits</td>
<td>G/U</td>
</tr>
</tbody>
</table>

¹ Determines the final grade of the course.

Students with a permanent disability who have been approved for special educational support may be offered adapted or alternative examinations.
Admission Requirements

Prerequisite courses for this course are: Passed courses: MT302G-Strength of Materials I G1F and MT300G-Mechanics II G1F and BV103G-Sustainable Development for Engineers I G1N and PR011G-Quality and Measurement Technology G1N and IP338G-Engineering Project I G1F (or the equivalent).

Subject, Main Field of Study and Disciplinary Domain

The course forms a part of the academic subject area of Mechanical Engineering. The course is a part of the main field of study in Mechanical Engineering at the University of Skövde. The disciplinary domain of the course is Technology.

Every course at the University of Skövde belongs to a subject. The division of subjects is used for follow-up and quality assurance. A main field of study is an area in which a degree can be awarded. Disciplinary domain is a division which is used by the government for the allocation of resources for studies at basic level and advanced level.

Approval of Course and Course Syllabus

The course was approved by the Curriculum Committee for Engineering Science on 4 June 2018. This course syllabus was approved by the Curriculum Committee for Engineering Science on 10 December 2018. It is valid from 1 January 2020 and replaces the course syllabus approved 8 October 2018.

Overlapping with Another Course

This course cannot constitute a part of a degree also containing a course the content of which is totally or partly equivalent to the content of this course, e.g. Computer Aided Design Project G2F 7.5 credits

Additional Information

Further information will be available on the university's website before a course is given.

National and local regulations for higher education are available on the university's website.

Upon completion of the course there will be a follow-up. The main purpose of this follow-up is to contribute to improvements of the course. The students’ experiences and views constitute one of the criteria for the follow-up and are gathered by means of course evaluations. The students will be informed of the results of the follow-up and any decisions regarding actions that are to be taken.

Course Literature and Other Educational Materials

Main literature


Reference