

MICRO-406

**Products design & systems engineering**

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<b>Cursus</b>	<b>Sem.</b>	<b>Type</b>
Microtechnics	MA1, MA3	Obl.

Language of teaching	English
Credits	10
Withdrawal	Unauthorized
Session	Winter
Semester	Fall
Exam	During the semester
Workload	300h
Weeks	14
<b>Hours</b>	<b>10 weekly</b>
Courses	5 weekly
Project	5 weekly
<b>Number of positions</b>	
<b>It is not allowed to withdraw from this subject after the registration deadline.</b>	

**Summary**

This course will cover all the aspects of product design and system engineering from learning relevant methods to the actual implementation in a hands-on practice of product development.

**Content**

The course will be sub-divided in lectures covering the various aspects of product designs (technical aspect such as system engineering, production engineering, quality control as well as organisational aspects such as project planning, including general knowledge about the structure of a company, IP, and innovations).

**Keywords**

Product design, project planning, system engineering, hands-on practice

**Learning Outcomes**

By the end of the course, the student must be able to:

- Design a product
- Elaborate a plan for an efficient product design cycle
- Plan a prototype realization
- Coordinate a team-work strategy

**Transversal skills**

- Chair a meeting to achieve a particular agenda, maximising participation.
- Communicate effectively, being understood, including across different languages and cultures.
- Evaluate one's own performance in the team, receive and respond appropriately to feedback.
- Identify the different roles that are involved in well-functioning teams and assume different roles, including leadership roles.

**Assessment methods**

The assessment will be based on three elements: a report, oral presentations as well as a final prototype.

**Supervision**

Office hours	No
Assistants	Yes
Forum	Yes