

Engineering Project (E610052)

Course size *(nominal values; actual values may depend on programme)*

Credits 5.0 **Study time 150 h**

Course offerings and teaching methods in academic year 2023-2024

A (Year)	Dutch	Kortrijk	excursion	
			lecture	
			group work	0.0h

Lecturers in academic year 2023-2024

Callens, Ria	TW08	staff member
De Boever, Simon	TW08	staff member
Dereyne, Steve	TW08	staff member
Monte, Michael	TW08	staff member
Verstockt, Steven	TW06	staff member
Stockman, Kurt	TW08	lecturer-in-charge
Pollefliet, Leen	TW05	co-lecturer

Offered in the following programmes in 2023-2024

	crdts	offering
Bachelor of Science in Engineering Technology(main subject Machine and Production Automation)	5	A
Bachelor of Science in Industrial Design Engineering Technology	5	A
Bachelor of Science in Engineering Technology (Joint Section)	5	A

Teaching languages

Dutch

Keywords

CDIO, project work, written report, oral presentation

Position of the course

In this course you learn how to setup and execute a project in a team consisting of several students. You will report the outcome of the project both in a written report and by means of an oral presentation . Each student will participate in 2 projects.

Contents

Project work:

The projects are performed in a team (typically 5 students) by using the CDIO model. The students will learn how to brainstorm and realize technical solutions within the context of the project. Apart from acquiring technical knowledge students will also train their skills to demonstrate and to communicate to other people. In the second semester, also a company visit is included.

Lectures on communication skills:

- Communication session 1: Writing a report: First the students are introduced to communication principles. Next they learn how to create business emails, create a technical report (structure, referencing, correct grammar).
- Communication session 2: Preparing a presentation: In this session you will learn how to setup a good presentation based on your technical realization during the project work. The presentation is a team effort and focus is on the structure, generating strong powerpoint slides, correct use of language and body language.

Lecture on literature research (2h)

Lecture on sustainability and environmental awareness (2h)

Initial competences

Final competences

- 1 You can successfully run a project in a team, taking care of deadlines, durability and environmental issues and specific limitations (depending on the project).
- 2 You know how to gather scientific and technical information and how to use it.
- 3 You use software packages for technical drawings, graphs and calculations.
- 4 You know how to write a technical report.
- 5 You can give a good technical presentation.

Conditions for credit contract

Access to this course unit via a credit contract is determined after successful competences assessment

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Group work, Excursion, Lecture

Extra information on the teaching methods

Lectures, project work and company visit

Learning materials and price

Project work:

- Powerpoint presentations on project work available on the electronic learning environment
- Background information available on the electronic learning environment

Communication partim (learning path from the first bachelor up to the first master's year)

- Syllabus: 'Communicatie in drie modules' (250 pages, available on via the electronic learning platform), to be used from the first bachelor's year up to the first master's year (and afterwards).
- Handbook: 'Scoren met je scriptie - Het standaardwerk voor verslagen, rapporten en projecten, off- en online' (355 pages + QR codes to instructional videos and interactive language and writing exercises) - Owl Press (<https://borgerhoff-lamberigts.be/boeken/scoren-met-je-scriptie>, ISBN 9789463937276), student price 30 euros: compulsory handbook for the communication partim on writing (reports, bachelor's thesis, master's dissertations), to be used from the first bachelor up to the first master's year (and afterwards).
- PowerPoint presentations/hand-outs/knowledge clips on writing and presenting available on the electronic learning platform.

References

- Project work: references on <http://www.cdio.org>
- Communication partim (learning path from the first bachelor up to the first master's year): 'Bij wijze van spreken - Het standaardwerk voor mondelinge communicatie' (550 pagina's) - Owl Press (<https://borgerhoff-lamberigts.be/owlpress>, ISBN 9789463934381, student price: 39,90 euros).

Course content-related study coaching

The project teams typically consist of 5 students. Each team has a technical mentor who is guiding the team.

Assessment moments

continuous assessment

Examination methods in case of periodic assessment during the first examination period

Presentation

Examination methods in case of periodic assessment during the second examination period

Presentation

Examination methods in case of permanent assessment

Peer and/or self assessment, Assignment

Possibilities of retake in case of permanent assessment

examination during the second examination period is not possible

Extra information on the examination methods

Project semester 1:

- Intermediate written report evaluated on grammar
- Final report evaluated on technical content, structure, references, grammar.
- Peer assessment in the project team
- Product evaluation by the technical mentors

Project semester 2:

- Final report evaluated on technical content, structure, references, grammar. This reports also contains a reflection based on the company visit.
- Group presentation: evaluation of content, structure, spoken language and body language
- Peer assessment of the presentations
- Peer assessment by the team members
- Evaluation of the final product by the technical mentors based on the predefined technical requirements

Calculation of the examination mark

Project semester 1: 40%

- Written report (30% of the score in semester 1)
- Product and process (70% of the score in semester 1)
- Peer evaluation among the project team members. Results will be available in the electronic learning environment.

Project semester 2: 60%

- Oral presentation (25% of the score in semester 2)
- Final written report (25% of the score in semester 2)
- Product and process (50% of the score in semester 2)
- Peer evaluation among the project team members. Results will be available in the electronic learning environment.