

## Engineering Project (E099121)

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

**Credits 3.0**

**Study time 90 h**

**Course offerings and teaching methods in academic year 2024-2025**

A (semester 2)

Dutch

Gent

group work

**Lecturers in academic year 2024-2025**

De Smet, Herbert

TW06

lecturer-in-charge

**Offered in the following programmes in 2024-2025**

[Bachelor of Science in Engineering\(main subject Electrical Engineering\)](#)

**crdts**

3

**offering**

A

**Teaching languages**

Dutch

**Keywords**

Electrical measurements, design of electrical circuits

**Position of the course**

**Contents**

- Usage of measurement equipment (function generator, oscilloscope, multimeter, ...) to validate the behavior and non ideal effects in an electrical circuit.
- design of a simple circuit based on predefined I/O behavior
- building a prototype of such a circuit

**Initial competences**

**Final competences**

- 1 Using electrical measurement equipment
- 2 Measuring static and dynamic characteristics of electrical components
- 3 Design a simple electrical circuit
- 4 set up a measurement protocol to validate the operation of electrical circuits
- 5 Awareness of the limitations and imperfections of electrical measurement equipment (noise, distortion, frequency range, ...)
- 6 awareness of imperfections of electrical components
- 7 The ability to work in group

**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, Lecture

**Extra information on the teaching methods**

Presence for this course is compulsory

**Study material**

Type: Slides

Name: Slides intro session and topics magnetism and filters

Indicative price: Free or paid by faculty

Optional: no

Language : Dutch  
Number of Slides : 125  
Oldest Usable Edition : none  
Available on Ufora : Yes

Type: Other

Name: Project assignment bundles  
Indicative price: Free or paid by faculty  
Optional: no  
Language : Dutch  
Author : Pieter Rombouts & Herbert De Smet  
Number of Pages : 10  
Oldest Usable Edition : none  
Available on Ufora : Yes

Type: Other

Name: Completely equipped practicals room including a supply of electronic components  
Indicative price: Free or paid by faculty  
Optional: no  
Usability and Lifetime within the Course Unit : intensive  
Usability and Lifetime within the Study Programme : regularly  
Usability and Lifetime after the Study Programme : not

#### References

- none

#### Course content-related study coaching

#### Assessment moments

continuous assessment

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

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

#### Examination methods in case of permanent assessment

Professional practice, Skills test, Participation, Peer and/or self assessment, Assignment

#### Possibilities of retake in case of permanent assessment

examination during the second examination period is possible in modified form

#### Extra information on the examination methods

- (1) During the semester there are around 3 reports that are assessed.
- (2) During the practical sessions there will be occasional individual interrogations. Typically every student will be interrogated 2 times.
- (3) The functioning of the groups will be assessed by a Peer Assessment.
- (4) At the end of the semester there will be a practical skill test.
- (5) There is one company visit: participation to this company visit is compulsory.

#### Calculation of the examination mark

#### Facilities for Working Students

Work students cannot be exempted from the participation in the practical sessions.