GHENT UNIVERSITY

Course Specifications

Valid as from the academic year 2024-2025

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 2026-2027

A (semester 2)	Dutch	Gent	group work

Lecturers in academic year 2026-2027

De Smet, Herbert	TW06	lecturer-in-charge

Offered in the following programmes in 2026-2027	**crdts**	**offering**
Bachelor of Science in Engineering(main subject Electrical Engineering)	3	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, distorstion, 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.