

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 2023-2024

A (semester 2) Dutch Gent group work

Lecturers in academic year 2023-2024

De Smet, Herbert TW06 lecturer-in-charge

Offered in the following programmes in 2023-2024

	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, 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

Learning materials and price

Notes with information on the specific projects. These will be distributed at no cost during the introduction sessions as well as in electronic form through the electronic learning environment. If applicable, additional information will be provided in electronic form through the electronic learning environment.

References

- none

Course content-related study coaching**Evaluation methods**

continuous assessment

Examination methods in case of periodic evaluation during the first examination period**Examination methods in case of periodic evaluation during the second examination period****Examination methods in case of permanent evaluation**

Professional practice, peer and/or self assessment, participation, assignment, skills test

Possibilities of retake in case of permanent evaluation

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