

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

**Credits** 3.0      **Study time** 90 h      **Contact hrs** 30.0 h

**Course offerings and teaching methods in academic year 2017-2018**

A (semester 2)	group work	25.0 h
	lecture	5.0 h

**Lecturers in academic year 2017-2018**

Rombouts, Pieter	TW06	lecturer-in-charge
De Smet, Herbert	TW06	co-lecturer

**Offered in the following programmes in 2017-2018**

<a href="#">Bachelor of Science in Electrical Engineering</a>	crdts	offering
	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

**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**

**References**

- Geen

**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**

Participation, report

**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**

During semester: graded project reports.

**Calculation of the examination mark**

1 mark out of 20 of the exam grades is attributed to participation in the excursions.