

# COBRA REPORT

## Study programme: Master of Electromechanical Engineering Technology

Drawn up on: 6 December 2019

KU Leuven uses the [COBRA method](#) to work on the quality of its study programmes. In this report the programme committee reports every four years on the quality of its programme(s) and describes the identified strength(s) and planned action(s) of its programme(s).

### Strengths of the study programme(s)

- Application-oriented academic training.
  - Plenty of lab sessions, exercises and assignments.
  - Many learning goals are included in the lab sessions.
  - Interesting company visits and guest lecturers from the professional field.
- Students choose their major in the second year of the preceding bachelor programme. The common core with its broad scientific training helps students to make an informed decision. The first phase of the programme therefore maintains a balance between the various professional disciplines.
- Versatile programme:
  - Scientific-disciplinary knowledge, comprehension and research competences (common core with broad scientific training in several disciplines, specialization in a chosen domain)
  - Engineering competences (problem analysis and solving, design and/or development, application-oriented research, ethical behaviour, entrepreneurship ...)
  - Practical competences (managing systems and installations, software, applying safety regulations ...)
  - General competences (information gathering and processing, communication, critical thinking, team work ...)
- Personal guidance and support thanks to easily approachable, dedicated lecturers and student career counsellors.
- Diverse student population: intake via bachelor's programme and bridging programme, appeals to students from both general secondary education as well as technical secondary education.
- Very diverse career opportunities with the degree.
- Geographical proximity: programme offered at several campuses in Flanders.
- The lecturers of all campuses of the KU Leuven Faculty of Engineering Technology represent extensive educational experience and collaborate in a collegial and constructive manner in teams for each learning trajectory. This allows for cross-fertilization of complementary expertise and vision.
- Appealing, well equipped campuses with extensive student facilities (e.g. student restaurants, study spaces, information sessions about study skills).
- The master's thesis includes a company internship and/or experience in a research group.

### Planned actions

- To fully benefit from the complementarity of the multi campus faculty, the full engineering technology curriculum is being reformed. The reforms of both the bachelor and master

This COBRA report is a result of the past four-year COBRA cycle (2015-2019). Each study programme that participated in the COBRA cycle has drawn up this document, which specifies the strengths and planned actions of the study programme. These strengths and actions result from the dialogue between the programme and its stakeholders (primary actors, alumni, professional field and international experts from the discipline). This report aims to give a comprehensive indication of the study programme's realised quality. The COBRA report will be made available in the programme guide, so it will be accessible to the public.



curriculum is a multiannual plan of the Faculty of Engineering Technology to invest in the programmes. The cohort of 2020-2021 will be the first to enroll in the new bachelor programme, therefore the first master students in Electromechanical Engineering Technology will follow in 2023-2024.

- A current challenge is how, across universities and disciplines, the bridging programme are experiencing a very high study load with limited margins for students to compensate for missing prior knowledge. Therefore the bridging programmes will be reformed as of 2021-2022 according to interuniversity agreements.
- As master's thesis guidance currently differs according to the supervisor, faculty-wide guidelines on master's thesis guidance will be developed. A working group will be established within the POC Electromechanical / Polymer Processing Engineering Technology to stimulate to share good practices.