

## Study programme: Master of Bioscience Engineering: Agro- and Ecosystems Engineering

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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 Master of Bioscience Engineering: Agro- and Ecosystems Engineering.

### Strengths of the study programme(s)

Agro- and Ecosystems Engineering (ACE) is a - in Flanders - unique master programme with a multidisciplinary basis (truncus communis) and with specializations (majors) in plant production systems, soil and water systems, forest, nature and landscape systems, and agricultural and resource economics.

- The programme is internationally oriented, focused on training international and local students able to tackle climate- and environmental problems in global agro- and ecosystems.
- A core component of the programme is an integrated field project abroad, in a temperate or tropical environment. Here students are not only challenged regarding their scientific knowledge and technical skills, they also develop transferable skills like interactive and multicultural learning in team, project management, efficient communication and economic assessment.
- All students can opt for an own initiative exchange semester and/or an international internship and/or an international thesis research project at other partner universities. Students of the major Plant Production Systems are encouraged to make use of specific opportunities for international outgoing mobility: an exchange semester Hortology at Stellenbosch University in South Africa or an exchange semester Production Forestry Systems at the Universidad de la Frontera in Chile.

### Planned actions

- The programme will be further promoted on the international scene, in cooperation with the faculty.
- A continuous action relates to quality control and monitoring of the program, e.g. by revising admission rules based on previous experiences.
- Develop and communicate model trajectories for major/minor combinations
- Develop and communicate guidelines about the order in which courses should preferably be included in the study programme
- Enhance visibility of internships and share information about internships via e.g. the Toledo community
- Follow up and coordinate the workload for permanent evaluation/assignments throughout the academic year
- Activate teaching staff/ZAP to provide feedback on assignments and exams
- Inform students about job profiles for ACE graduates e.g. via CV book of alumni on Toledo community

This COBRA report is a result of the past four-year COBRA cycle (2019-2023). 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.



More information on COBRA: <https://www.kuleuven.be/english/education/quality/cobra-english/quality-assurance-method>  
More information on the quality of education: <https://www.kuleuven.be/english/education/quality>  
KU Leuven educational terminology: <https://www.kuleuven.be/english/education/educational-glossary/educational-glossary>