MASTER OF SCIENCE IN BIOSCIENCE ENGINEERING: SUSTAINABLE URBAN BIOSCIENCE ENGINEERING

PROGRAMME JOINTLY OFFERED BY GHENT UNIVERSITY, CATHOLIC UNIVERSITY OF LEUVEN, UNIVERSITEIT ANTWERPEN, KU LEUVEN

120 ECTS CREDITS - LANGUAGE: ENGLISH

WHAT

The Master's programme will qualify you to become a bioscience engineer who can provide (eco) technological and sustainable solutions to these various societally relevant challenges. The programme will provide you with in-depth knowledge of urban environmental challenges from different disciplines and of the right tools to address them. Key in the Master's programme are the multidisciplinary CityLabs in the first year of the curriculum. Each CityLab is coordinated by a different university and focusses on a particular urban environmental challenge.

STRUCTURE

The Master Sustainable Urban Bioscience Engineering (SUBE) curriculum is designed to guide you step by step through two years of learning and discovery.

In the **first year**, you'll start with a set of introductory courses that build a solid foundation for what comes next. You'll explore what cities are, how they came to be, and what makes them sustainable — or not. You'll learn to use tools for spatial and sustainability analysis, and you'll see how disciplines such as sociology, urban planning, legislation, and economics play a vital role in urban projects.

Then comes the heart of the programme: the *three multidisciplinary CityLabs*, each on a different dimension of urban sustainability:

- The first, **The Urban Ecosystem**, coordinated by the *University of Antwerp*, looks at how cities interact with natural systems — water, air, soil, and urban green spaces.
- The second, **Urban Resources**, led by *Ghent University*, explores how to optimise the use of materials, water, energy, and food within urban environments.
- And the third, **Human Health and Urban Liveability**, coordinated by *KU Leuven*, examines how city life affects public health and overall quality of life. In every CityLab, you'll work on real-life cases together with city services, companies, and community organisations. It's hands-on, problem-based learning that connects bioscience engineering with many other disciplines to tackle complex, real-world sustainability challenges.

In your **second year**, you'll have the freedom to personalise your learning path with advanced electives and free-choice courses. You'll also gain valuable professional experience through a mandatory internship. Finally, you'll complete your Master's thesis — an individual, multidisciplinary research project that brings together everything you've learned and allows you to make your own contribution to the sustainable cities of tomorrow.

LABOUR MARKET

During the Master's programme, you will interact with different types of stakeholders that are active in a city, both locally and globally (citizens, policy makers, businesses, organisations and many more). The Master's programme prepares you for a global employability in a broad international professional field. You will find employment with a wide variety of employers, both with those already providing sustainable and (eco)technological solutions to urban environmental challenges and with those still lacking a sustainable approach: in the public sector at local, national or supranational level (e.g. ministries of environment or European institutions), in international organisations, in academic or research institutions (e.g. universities or research institutes), in non-governmental organisations, and in private companies (e.g. environmental sector, food industry or engineering firms).

Particularly relevant is that this Master's programme is jointly organised by the University of Antwerp (coordinator), Ghent University and KU Leuven, which is unique in Belgium and will result in a jointly awarded degree.

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TOELATINGSVOORWAARDEN VOOR HOUDERS VAN EEN VLAAMS DIPLOMA

1 **Rechtstreeks:**
- Bachelor in de bio-ingenieurswetenschappen

Additional Information on Admission (Flemish Degree)

Students with a Belgian *Bachelier en sciences de l'ingénieur, orientation bioingénieur,* are admitted directy into the programme.
There are no preparatory courses organised that give access to the Master's programmes of Bioscience Engineering. Students who have obtained an academic bachelor's degree in a closely related field of study (eg. Biology, Biochemistry and Biotechnology, Biomedical Sciences, Chemistry, Engineering, ...) can submit a request for exemptions in the Bachelor of Science in de bio-ingenieurswetenschappen which gives immediate admission to the master's programme.
For further information, please visit: https://www.sube.be/admission-and-enrolment/admission-

ADMISSION REQUIREMENTS FOR INTERNATIONAL DEGREE STUDENTS

The Master of Science in Bioscience Engineering: Sustainable Urban Bioscience Engineering is open to any applicant holding an academic bachelor's degree in engineering (bioscience engineering, bioengineering, agricultural engineering, environmental engineering, or any equivalent engineering degree), and to applicants holding other bachelor's or master's degrees encompassing thorough coursework in mathematics, statistics, physics, chemistry, and basic engineering courses; and at least one of the following two domains (i) Earth and environmental sciences, and (ii) biology and ecology. This degree should be obtained at a recognized university, college or institute, with an end result of at least second class upper or equivalent.
Admission can only be granted after an individual application procedure. The Board of Admission will make the final decision whether to accept the application or not.
Information on admission requirements and the administrative procedure for admission of a degree obtained abroad, can be found on the following page: https://www.sube.be/admission-and-enrolment

LANGUAGE REQUIREMENTS

Language requirements Dutch: no language requirements

Candidates with a prior degree issued outside Belgium, the Netherlands or Luxembourg are required to demonstrate their proficiency in English. They can do so in two ways: (1) Either by submitting a language certificate showing their TOEFL, IELTS, ITACE, Cambridge English or Pearson PTE Academic results (obtained within the last two years): (2) or by submitting proof they have studied at least one academic year (or 60 ECTS credits) in an English-language Bachelor or Master programme.
Please note that the Board of Admission may still ask for additional proof of proficiency in English.
More information on: https://www.sube.be/admission-and-enrolment/admission-requirements/

PRACTICAL INFORMATION

Study programme
studiekiezer.ugent.be/master-of-science-in-bioscience-engineering-sustainable-urban-bioscience-engineering-en/programma

Information sessions
EVOLV
evolv.gent/en/students/further-studies

Enrolling institution
Universiteit Antwerpen

More information on enrolment at the University of Antwerp.

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FACULTY OF BIOSCIENCE ENGINEERING

2026-27

Application Deadline (for International degree students)

For students **who need a visa** (non-EEA nationals): 1 March
For students **who don't need a visa** (EEA nationals): 1 June
Read more on www.sube.be/admission-and-enrolment/application-procedure/

Tuition fee

More information is to be found on: www.ugent.be/tuitionfee

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GHENT UNIVERSITY

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