## BIOSCIENCE ENGINEERIN

2024-25

## MASTER OF SCIENCE IN SUSTAINABLE FOOD PACKAGING

60 ECTS CREDITS - LANGUAGE: ENGLISH

Food packaging is omnipresent in our daily lives.

#### WHAT

making it possible to better protect food and reduce food waste. However, in the past decade, the packaging industry has experienced strong growth, with some notable evolutions: the increased use of plastics to replace other substrates (partly to serve the end user better), and a strong economic growth in emerging countries. Together with the use of single-use packaging, it causes a substantial environmental impact, and makes the management of packaging waste extremely challenging in terms of recyclability. Consumers and governments are therefore increasingly demanding sustainable packaging, driving companies towards more socially responsible packaging strategies. At the same time, the food industry has also undergone a number of evolutions: an increasing attention to reducing additives in food, less intensive processes such as mild pasteurisation processes instead of sterilisation processes, etc. These evolutions result in higher quality food with better retention of nutrients and sensory properties, but put pressure on the microbiological and chemical stability. In order to guarantee the required shelf life, a suitable packaging system must be used, both in terms of the type of packaging materials and machines, and in terms of the environmental conditions in which the filling takes place. Such a packaging system must be developed or selected specifically on the basis of the characteristics of the

The Master of Science in Sustainable Food Packaging brings the three domains together and addresses the question of how we can keep food safe and preserve it for the required shelf-life using food packaging systems that are sustainable and balance the ecological footprint with ensuring access to high quality food and maintaining profitable food supply chains. This question is part of the larger (international) challenge to ensure sustainable consumption and production patterns by improving environmental and societal sustainability and increasing the circularity in food packaging systems.

food to be packaged, the storage conditions during distribution, and storage further down the food

#### **STRUCTURE**

chain.

The Master Science in Sustainable Food Packaging is divided in five modules, allowing you to spread the programme over several years and study part-time. Together with online teaching activities and evening

classes, it offers you maximum flexibility to combine the programme with a career or family. A master's dissertation and internship at an external organisation adds to the hands-on character of the programme.

For more information about the different modules, please visit www.sfp.ugent.be.

#### **LABOUR MARKET**

The interdisciplinary character of the programme ensures that you are well prepared to pursue a career in a field related to Sustainability, Food and/or Packaging. Ample (international) job opportunities exist for Sustainable Food Packaging experts, situated in sectors such as the food industry, packaging industry, packaging machines producing industry, gas supplying industry, retail, the waste and recycling industry, government agencies and NGOs. You will be qualified to fill technical-, research- policy- and management-oriented positions.



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#### TOELATINGSVOORWAARDEN VOOR HOUDERS VAN EEN VLAAMS DIPLOMA

- 1 Na onderzoek van de bekwaamheid van de student om de opleiding te volgen:
  - a opleidingen nieuwe structuur:
    - Een diploma van een masteropleiding aansluitend op een bacheloropleiding
  - b opleidingen oude structuur:
    - Een diploma van de tweede cyclus van het hogeschoolonderwijs van twee cycli
    - Een diploma van een academische opleiding van de tweede cyclus

Additional Information on Admission (Flemish Degree)

Students with certain minor gaps in their educational background will be provided with extra learning materials (for example in microbiology or biochemistry).

## ADMISSION REQUIREMENTS FOR INTERNATIONAL DEGREE STUDENTS

#### **REQUIREMENTS**

Target audience

The programme aims at three types of students; recent graduates, (ii) international students and (iii) professionals.

In general, any highly motivated candidate with a master's degree, a keen interest in Sustainability, Food and Packaging, and sufficient background in chemistry and mathematics can be admitted. If you hold a master's degree in an entirely different field of study, your application will still be considered if you can demonstrate the necessary academic requirements.

Students with certain minor gaps in their educational background will be provided with extra learning materials (for example in microbiology or biochemistry).

Academic requirements

Each application file is evaluated by the programme committee **irrespective of the diploma obtained**, and has to be approved by the registrar's office.

- Applicants must have a master's degree or a bachelor's degree of minimum 4 years from a university or recognised equivalent. Good overall scores are recommended.
- Applicants are expected to have a basic science training (e.g. demonstrable in the transcripts) in (i) Mathematics and Statistics; and (ii) General and/or Organic Chemistry.

 Applicants are expected to add a short letter of motivation.

If you do not yet hold a master's degree but expect to graduate before the start of the programme, you should submit your application package before the deadline. Instead of the legalised diploma and final transcripts/diploma supplement, you are required to submit upon application:

- an official declaration from your school/university confirming the expected graduation date and the exact name of the diploma that will be awarded
- · your most recent transcript

Information on admission requirements and the administrative procedure for admission on the basis of a diploma obtained abroad, can be found on the following page: www.ugent.

<u>be/prospect/en/administration/enrolment-or-registration.</u>

#### LANGUAGE REQUIREMENTS

Language requirements Dutch: no language requirements English: CEFR level B2

#### PRACTICAL INFORMATION

#### Study programme

studiekiezer.ugent.be/master-of-science-in-sustainable-food-packaging-en/programma

#### Information sessions

#### **Graduation Fair**

afstudeerbeurs.gent/en/students/further-studies

#### **Enrolling institution**

Information on enrolment at Ghent University.

#### Application Deadline (for International degree students)

- 1 April (non-EEA citizens)
- 1 June (EEA citizens and non-EEA citizens with a valid residence permit)

For **ALL students** (both Belgian and international): please read carefully the programme specific application procedures.



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Tuition fee  More information is to be found on: www.ugent.be/tuitionfee
Contact sfp@ugent.be
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