# SACULTY OF BIOSCIENCE ENGINEERING

2019–20

BW1

# MASTER OF SCIENCE IN FOOD TECHNOLOGY

MAJORS: FOOD SCIENCE AND TECHNOLOGY • POSTHARVEST AND FOOD PRESERVATION ENGINEERING International Course Programme (ICP): Master's Programme organised by Ghent University, KU Leuven and supported by the Flemish Interuniversity Council (VLIR-UOS)

120 ECTS CREDITS - LANGUAGE: ENGLISH - DEGREE: MASTER OF SCIENCE

### **COURSE CONTENT**

The general objective of IUPFOOD is to provide a multidisciplinary and specialised professional training in areas of food technology, with emphasis on postharvest and food preservation engineering on the one hand and food science and technology on the other hand, to equip future personnel with the necessary technological and managerial knowledge, skills, and attitudes, which are required to successfully contribute to solving problems related to food security. The IUPFOOD programme particularly focuses on developing countries where food security (delivering enough nutritious, high-quality safe food) is a current and future major concern and key challenge.

Today it is recognised that post-production considerations or activities such as postharvest handling, storage, processing, preservation, marketing, distribution and utilizations need to form part of agricultural development programmes because there are many opportunities for food to be lost between harvest and consumption. These postharvest food losses represent a loss of valuable nutrients and money, especially in developing countries. Food should not only be produced, it should also be delivered to the ultimate consumer in an acceptable form if it is to fulfil its nutritional destiny. To bring foods to the consumer in an acceptable form, on the one hand processing technologies are used to convert edible raw materials into foods with decreased inherent stability; on the other hand preservation technologies are required to increase the stability and shelf life of foods. Based on these considerations, two technological dimensions of prime and crucial importance in food processing and preservation are the key objectives and programme options in IUPFOOD:

- The transformation (processing) of raw materials into products suited for human consumption.
- The role of postharvest and food preservation unit operations in delivering safe and nutritious foods to the end consumer.

These two concerns are directly translated in the focus points of the IUPFOOD training programme.

### **COURSE STRUCTURE**

The programme builds on the integrated expertise in research and education of KU Leuven and UGent in the field of food technology. IUPFOOD offers two years of academic education, leading to a MSc degree 'Master of Science in Food Technology'. In the first year of the MSc programme, in-depth knowledge in food science, engineering and food engineering is obtained, in order to achieve a common base level between students of different backgrounds. The first year is common to all participants. The first semester is organised at UGent while the second semester is organised at KU Leuven. The second year of the MSc programme provides a broad knowledge in food technology and in-depth understanding in either 'Postharvest or Food Preservation Engineering' (PFPE) or 'Food Science and Technology' (FST), depending on the major chosen.

The second year of the programme therefore consists of specific courses on each major (PFPE and FST), optional courses and dissertation research. The major, the optional courses and the dissertation topic are chosen after completing the first year. For the optional courses the student may choose among the

courses of the other specialisation and the additional optional courses offered. This enables the participants to compile a tailor-made study curriculum according to their individual needs and interests. The specialisation 'Food Science and Technology' (FST) is organised at UGent, while the specialisation 'Postharvest and Food Preservation Engineering' (PFPE) is organised at KU Leuven.

### > Master's dissertation

The master's dissertation integrates the acquired knowledge with the personal education/development of the student and is programmed in the third and fourth semester. It represents an important study load (30 credits) because it is considered to be an outstanding example of guided self-tuition, an integration of all aims and objectives and an instrument for evaluation of the end terms of the master's programme. The master's dissertation represents a considerable volume of experimental work, analytical processing, interpretation and communication and is performed within a research group in KU Leuven or UGent.

### CAREER PERSPECTIVES

It is the objective of IUPFOOD to offer a programme that takes into account the specific needs and approaches in developing countries. The IUPFOOD programme prepares students for different tasks, particularly in a professional teaching and research environment.

IUPFOOD alumni are mainly active in the following sectors: academic institutes (as teaching and/or research staff), research institutes (as research staff), non-governmental organisations (in different capacities), governmental institutes (e.g. in research programmes, quality surveillance programmes or national nutritional programmes) and private industry (in particular quality control related jobs). A number of IUPFOOD alumni complete further PhD studies in an early phase of their career.



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# TOELATINGSVOORWAARDEN VOOR HOUDERS VAN EEN VLAAMS DIPLOMA

### Rechtstreeks:

- Ba bio-ingenieurswetenschappen

## Via voorbereidingsprogramma:

- Ba chemie
- Ba biochemie en biotechnologie
- Ba ingenieurswetenschappen: chemische technologie
- Ba industriële wetenschappen: chemie
- Ba biowetenschappen

### **TAAL**

Je voldoet aan de taalvoorwaarden op basis van je Vlaams diploma.

### **PRAKTISCHE INFORMATIE**

## Studieprogramma:

# https://studiegids.ugent.be

> faculteiten > opleidingstypes > ga naar de opleiding van je keuze

## Alternatieve trajecten - doorstroomprogramma's

Ben je in het bezit van een van onderstaande masterdiploma's dan kan je – na toelating op basis van dossieronderzoek – rechtstreeks starten in masteropleiding:

- Ma biowetenschappen: voedingsindustrie
- Ma industriële wetenschappen: biochemie
- Ma industriële wetenschappen:
  - chemie
  - milieukunde
- Ma biowetenschappen: land- en tuinbouwkunde Meer info: iupfood.postharvest@biw.kuleuven.be

# Infomomenten

### Masterbeurs

www.ugent.be/masterbeurs

# ADMISSION REQUIREMENTS FOR INTERNATIONAL DEGREE STUDENTS

For programme specific academic and language requirements consult www.ugent.be/bw/en/education/master-programmes.

## PRACTICAL INFORMATION

## Study programme

www.ugent.be/coursecatalogue

> by Faculty > Programme types > select your programme

### Application deadline

For programme specific application procedures and deadlines consult www.ugent.be/bw/en/education/master-programmes.

### **Enrolling institution**

KU Leuven

### **Tuition fee**

More information is to be found on: www.ugent.be/tuitionfee and www.itc.ugent.be. This programme is supported by (VLIR-UOS and other) scholarships.

www.ugent.be/bw/en/education/scholarships

Course website www.iupfood.be

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