

BRAS2MC

2014 - 2015

Advanced Master in Bio-engineering : Brewery

At Louvain-la-Neuve - 60 credits - 1 year - Day schedule - In frenchDissertation/Graduation Project : **YES** - Internship : **optional**Activities in English: **NO** - Activities in other languages : **NO**Activities on other sites : **NO**Organized by: **Faculté des bioingénieurs (AGRO)**Programme code: **bras2mc** - European Qualifications Framework (EQF): 7**Table of contents**

Introduction	2
Teaching profile	3
- Learning outcomes	3
- Programme structure	3
- Detailed programme	3
- Programme by subject	3
Information	5
- Admission	5
- Teaching method	6
- Evaluation	6
- Mobility and/or Internationalisation outlook	6
- Possible trainings at the end of the programme	6
- Contacts	6

BRAS2MC - Introduction

Introduction

BRAS2MC - Teaching profile

Learning outcomes

For candidates who have prior training in fields such as biochemistry, microbiology and other aspects of engineering, this course offers special training for the brewery sector and enables them to gain a high-level, professional qualification.

Programme structure

This programme is designed to provide training and preparation for professional practice in the brewery sector. It comprises theoretical and practical training as well as a placement- dissertation in industry.

- Schematic description of the course components

1. Theoretical training

The theoretical training includes the biochemistry, chemistry and the microbiology of procedures used in the malting house and the brewery. It also covers the practical and technological aspects linked to these two industries as well as the organoleptic aspects. It will widen students' knowledge of related subjects such as the chemistry and microbiology of foodstuffs.

2. Placement-dissertation

The aim of this work is to enable students to discover the brewery sector in a practical context. They will familiarize themselves with the activity of a team working on a specific problem related to the production of malt or beer. They will have to use the theoretical knowledge they have acquired in the framework of a piece of scientific research (ability to analyze the context of the problem from all perspectives, understand the methodology adopted and analyze the team's results). In addition, students will become more familiar with the different analytic techniques (e.g. GC-MS and HPLC) applied to brewing/malting.

This work is sponsored by a lecturer from the Master programme and a manufacturer. It forms the subject of a written report and a public oral defence before a group of lecturers and researchers whose work relates to the area of the placement.

[> Programme détaillé](#) [en-prog-2014-bras2mc-lbras220t.html]

BRAS2MC Detailed programme

Programme by subject

CORE COURSES [60.0]

● Mandatory

△ Courses not taught during 2014-2015

⊕ Periodic courses taught during 2014-2015

⊗ Optional

⊙ Periodic courses not taught during 2014-2015

‡ Two years course

Click on the course title to see detailed informations (objectives, methods, evaluation...)

● LBRAL2101	Beer organoleptic and microbiological quality	Sonia Collin (coord.), Marc Maudoux	30h+22.5h	5 Credits	2q
● LBRAL2103	Food chemistry	Sonia Collin	30h+22.5h	5 Credits	1q
● LBRAL2104	Food microbiology	Jacques Mahillon	30h+22.5h	5 Credits	2q
● LBRAL2105	Brewing biochemistry	Pablo Alvarez Costales, Stephan Declerck (coord.), Laurent Mélotte	30h+22.5h	5 Credits	1q
● LBRAL2106	Brewing biochemistry	Sonia Collin	30h+22.5h	5 Credits	1q

○ LBRAL2201A	Food technology (partim)	Axel Kather	52.5h	5 Credits	2q
○ LBRAS3390	Stage-mémoire	N.		27 Credits	
○ LBIRC2213A	Séminaire d'accompagnement à la recherche en brasserie	N.	30h	3 Credits	2q

BRAS2MC - Information

Admission

In the event of the divergence between the different linguistic versions of the present conditions, the French version shall prevail

Decree of March 31st 2004 defining higher education, favoring its integration in the European framework of higher education and refinancing universities.

The admission requirements have to be met at the time of enrolment at the university.

The mentioned information may of modification for 2014-2015

All information can be obtained from the [University's Enrolment Office \(Service des inscriptions – SIC\)](#).

The following students, after meeting the conditions set by the academic authorities, have access to the complementary Master's degree with the aim of obtaining the grade that these studies sanction:

- An academic Master's degree within the same field allowing 2nd-cycle studies, including at least 120 credits
- An academic Master's degree, following a decision by the academic authorities, under the complementary conditions that they set and as a result of a motivated decision by the jury
- An academic grade which is similar to those mentioned above, issued by the Flemish Community, the German Community or the Royal Military Academy, under the same conditions
- A foreign academic grade that has been acknowledged as being equivalent to those mentioned above, in application of this decree, a European-level directive or an international convention, under the same conditions
- Under the same conditions, one or several titles or academic grade issued by the Flemish Community, the German Community or the Royal Military Academy, sanctioning 2nd-cycle studies and valued at least 300 credits by the jury, or sanctioning 2nd-cycle studies and valued at least 240 credits completed of 60 credits, the all that must be valued by the jury according to the decree of March 31st, 2004 (art 54, 5 °)

In the event of the divergence between the different linguistic versions of the present conditions, the French version shall prevail

Specific Admission Requirements

Special procedures :

- degree in chemistry and bioindustries, agricultural bio-engineering, bio-engineering or engineering from a Belgian university or a degree recognized as equivalent by the Faculty of Biological, Agricultural and Environmental Engineering.
- adequate command of French is required.

Accessible to adults

The Advanced Master in Bio-engineering : Brewery is open to adults. It provides candidates who already have some experience with more advanced practical and theoretical training in the field of brewery and enables them to broaden or change the focus of their professional career in this constantly changing sector. The strong link between the theoretical aspects of the training and the practical work placement sponsored by a manufacturer gives added value to the training and facilitates entry into the brewery sector.

Teaching method

The teaching staff on the programme have a wide variety of backgrounds, both academic and industrial, and at an international level : this enables candidates to acquire themultidisciplinary knowledge necessary to understand these complex subjects. Being able to join a unit at the forefront of brewing research and undertaking a research placement sponsored by a manufacturer are major benefits for candidates who wish to improve their knowledge of the brewery world.

Evaluation

The evaluation methods comply with the [regulations concerning studies and exams](#). More detailed explanation of the modalities specific to each learning unit are available on their description sheets under the heading "Learning outcomes evaluation method".

The methods by which students are assessed include written and/or oral examinations as well as a placement which forms the subject of a written report and a public oral defence before a group of lecturers and researchers whose work relates to the area of the placement.

Mobility and/or Internationalisation outlook

The wide variety of participants on the programme for the Advanced Master in Bio-engineering : Brewery gives it a strong international outlook and offers many useful opportunities for exchanging experiences. There is special emphasis in the syllabus on globalization of the sector e.g. sourcing raw materials or problems in production methods. It is possible to undertake a placement in an international unit: this is clear evidence of the international scope of this Master.

Possible trainings at the end of the programme

This programme may only be taken after gaining a first Master's degree for 2nd cycle studies worth at least 300 credits. It may lead to doctoral training.

Contacts

Curriculum Management

Entite de la structure AGRO

Sigle	AGRO	
Dénomination	Faculté des bioingénieurs	
Adresse	Croix du Sud, 2 bte L7.05.01 1348 Louvain-la-Neuve Tél 010 47 37 19 - Fax 010 47 47 45	
Site web	https://www.uclouvain.be/agro	
Secteur	Secteur des sciences et technologies (SST)	
Faculté	Faculté des bioingénieurs (AGRO)	
Mandats	Philippe Baret Christine Devlesaver	Doyen Directeur administratif de faculté

Commissions de programme	Commission de programme - Master Bioingénieur-Sciences agronomiques (BIRA)
	Commission de programme - Master Bioingénieur-Chimie et bioindustries (BIRC)
	Commission de programme - Master Bioingénieur-Sciences & technologies de l'environnement (BIRE)
	Commission de programme - Bachelier en sciences de l'ingénieur, orientation bioingénieur (CBIR)
	Commission de programme interfacultaire en Sciences et gestion de l'environnement (ENVI)

Academic Supervisor : [Sonia Collin](#)

Jury

Président de jury : **Pierre Bertin**

Secrétaire de jury : **Marc Maudoux**

Usefull Contacts

Responsable du programme : **Sonia Collin**

