

**BRAS2MC**

2016 - 2017

Advanced Master in Bio-engineering : Brewery

**At Louvain-la-Neuve - 60 credits - 1 year - Day schedule - In french**Dissertation/Graduation Project : **YES** - Internship : **optional**Activities in English: **NO** - Activities in other languages : **NO**Activities on other sites : **NO**Main study domain : **Sciences agronomiques et ingénierie biologique**Organized by: **Faculté des bioingénieurs (AGRO)**Programme code: **bras2mc** - Francophone Certification Framework: 7**Table of contents**

Introduction .....	2
Teaching profile .....	3
- Learning outcomes .....	3
- Programme structure .....	3
- Detailed programme .....	3
- Programme by subject .....	3
- The programme's courses and learning outcomes .....	5
Information .....	6
- Admission .....	6
- Teaching method .....	7
- Evaluation .....	7
- Mobility and/or Internationalisation outlook .....	7
- Possible trainings at the end of the programme .....	7
- Contacts .....	7

## BRAS2MC - Introduction

### Introduction

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## 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-2016-bras2mc-lbras220t.html ]

## BRAS2MC Detailed programme

### Programme by subject

#### CORE COURSES [60.0]

● Mandatory

△ Courses not taught during 2016-2017

⊕ Periodic courses taught during 2016-2017

⊗ Optional

⊖ Periodic courses not taught during 2016-2017

■ Activity with requisites

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

● LBRAL2101	<a href="#">Beer organoleptic and microbiological quality</a>	Sonia.Collin (coord.) Marc.Maudoux	30h+22.5h	5 Credits	2q
● LBRAL2103	<a href="#">Food chemistry</a>	Sonia.Collin	30h+22.5h	5 Credits	1q
● LBRAL2104	<a href="#">Food microbiology</a>	Jacques.Mahillon	30h+22.5h	5 Credits	2q
● LBRAL2105	<a href="#">Brewing biochemistry</a>	Pablo.Alvarez Stephan.Declerck (coord.) Catherine.Liegeois	30h+22.5h	5 Credits	1q
● LBRAL2106	<a href="#">Brewing biochemistry</a>	Sonia.Collin	30h+22.5h	5 Credits	1q

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

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## The programme's courses and learning outcomes

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For each UCL training programme, a [reference framework of learning outcomes](#) specifies the competences expected of every graduate on completion of the programme. You can see the contribution of each teaching unit to the programme's reference framework of learning outcomes in the document "In which teaching units are the competences and learning outcomes in the programme's reference framework developed and mastered by the student?"

The document is available by clicking [this link](#) after being authenticated with UCL account.

## BRAS2MC - Information

### Admission

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

Decree of 7 November 2013 defining the landscape of higher education and the academic organization of studies.  
The admission requirements must be met prior to enrolment in the University.

#### General requirements

Subject to the general requirements laid down by the academic authorities, admission to the specialized Master's degree programme will be granted to students who fulfil the entry requirements for studies leading to the award of a Master's (second-cycle) degree and who hold a second-cycle diploma, degree, certificate or other qualification issued within or outside the French Community of Belgium, or whose prior learning or experience has been accredited by the Examination Board as being equivalent to at least 300 credits.

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#### 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.

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#### 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

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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

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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

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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

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

## Contacts

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Attention, you are currently reading a page of an old programme study. To get up to date contact information, please go to the [current program study](#) site.

## Curriculum Managment

Entite de la structure AGRO

Sigle	<b>AGRO</b>	
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	<a href="http://www.uclouvain.be/agro">http://www.uclouvain.be/agro</a>	
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 : Charles Bielders

Secrétaire de jury : Marc Maudoux

## Usefull Contacts

Responsable du programme : Sonia Collin

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