BRAS2MC: Advanced Master in Brewing Engineering

#### **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.

#### **BRAS2MC Programme**

#### **Detailed programme by subject**

#### **CORE COURSES [60.0]**

- Mandatory
- ☼ Optional
- △ Not offered in 2023-2024
- O Not offered in 2023-2024 but offered the following year
- ⊕ Offered in 2023-2024 but not the following year
- $\Delta \, \oplus \, \text{Not offered in 2023-2024}$  or the following year
- Activity with requisites
- Open to incoming exchange students
- [FR] Teaching language (FR, EN, ES, NL, DE, ...)

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

O LBRAL2103A

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O LBRAS2303	Hop Chemistry and Technology for wort boilong and dry-hopping	Pablo Alvarez Costales Stephan Declerck (coord.) Charles Nouwen	ि [q1] [30h+15h] [4 Credits] 🥦
O LBRAS2304	Qualités organoleptiques et microbiologiques de la bière et du vin	Sonia Collin (coord.) Marc Maudoux	[q1] [15h+30h] [4 Credits] 🕮
O LBRAS2305	Questions spéciales de brasserie	Sonia Collin (coord.) Marc Maudoux	[q1] [45h] [5 Credits] 🥮
O LBRAS2310	Stage-mémoire		[q1+q2] [] [27 Credits] 🕮

o Courses to chosen for 8 credits amongst the following list:

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## The programme's courses and learning outcomes

For each UCLouvain training programme, a reference framework of learning outcomes specifies the the skills expected of every graduate on completion of the programme. Course unit descriptions specify targeted learning outcomes, as well as the unit's contribution to reference framework of learning outcomes.

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## **BRAS2MC - Information**

# **Access Requirements**

BRAS2MC: Advanced Master in Brewing Engineering

UCL - Université catholique de Louvain Study Programme 2023-2024

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Useful Contact(s)

BRAS2MC: Advanced Master in Brewing Engineering