## **GNUC2MC - Introduction**

## Introduction

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ATTENTION: Register for this programme through the institution responsible for its administrative management, i.e. ULB, not through the UCLouvain Enrolment Office.

The master offers:

- the possibility of acquiring the skills necessary for designing and operating electronuclear power plants;
- a specialisation in nuclear sciences and technologies;
- the skills necessary for understanding the functioning of today's reactors and those of the 4th generation;
- a training organised by six universities and the Belgian Nuclear Research Centre and recognised on the European level.

#### Your profile

# Cours au choix du master complémentaire en génie nucléaire [9.0]

#### COURS AU CHOIX DU MASTER COMPLÉMENTAIRE EN GÉNIE NUCLÉAIRE [9.0]

O Mandatory

☼ Optional△ Not offered in 2023-2024

Not offered in 2023-2024 but offered the following year

Offered in 2023-2024 but not the following year

 $\Delta \oplus \mathsf{Not}$  offered in 2023-2024 or the following year

Activity with requisites

Open to incoming exchange students

❀ Not open to incoming exchange students [FR] Teaching language (FR, EN, ES, NL, DE, ...)

# 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.

3) Candidates with a foreign higher education degree may be admitted within the limits stipulated in the Decrees (Decree of the Frenchspeaking Community of 31 March 2004 on the definition of higher education and its integration in the European system of higher education and the refinancing of universities ; corresponding Decrees of the Dutch-speaking Community), following evaluation and approval by the Teaching Committee and respecting the regulations and procedures of the universities participating in the program.

4) Holders of the new degrees (Master ingénieur civil and Master in ingenieurswetenschappen) awarded according to the abovementioned decrees will have the same rights as soon as these degrees have been awarded by Belgian universities.

Students may enrol in the participating university of their choice. Students' candidacies will first be submitted to the Teaching Committee of the BNEN which will then make a recommendation in function of the criteria set out above.

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## **Teaching method**

Access to the resources (researchers and laboratories with their major infrastructure) of the Centre d'Etudes Nucléaires (SCK†¢CEN) is indispensable to ensure the pedagogical quality of this program. The interuniversity partnership guarantees the availability of the diversity of expertises necessary, as well as the quality of the teaching staff.

The modular system of each course concentrated over a limited period from several days to three weeks facilitates the participation of students engaged in professional life as well as foreign students.

### **Evaluation**

The evaluation methods comply with the <u>regulations concerning studies and exams</u> (https://uclouvain.be/fr/decouvrir/ rgee.html). 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 learning activities are evaluated according to the rules in force at the University (see examination regulations), viz. written and oral examinations, laboratory examinations, individual and group work, public presentations of projects, and thesis defence.

#### Mobility and/or Internationalisation outlook

The courses and practical work are given in English.

Since the foundation of the BNEN consortium (Belgian Nuclear higher Education Network), which has been in charge of the organisation of this program, the international dimension has been provided by student exchanges, as well as by the offer of three courses especially adapted to exchanges within the European Interuniversity Association ENEN (European Nuclear Education Network - http://www.enen-assoc.org/). Students have the possibility of following part of their course in another university of this association. If they have acquired 20 credits in this context, the ENEN association will award the certificate "European Master of Science in Nuclear Engineering". Some of these mobility exchanges can be financed within the Erasmus program.

## Possible trainings at the end of the programme

The program is organised conjointly by six universities: UCL, ULg, ULB, KULeuven, UGent, VUB. The courses are given in rooms made available to the universities by the Study Centre for Nuclear Energy at Mol (SCK.CEN). The practical work relies on the substantial infrastructure and laboratories of the Centre. The researchers of the Centre also assist with the practical work.

#### **Contacts**

#### **Curriculum Management**

Entity

Structure entity Denomination Sector SST/IMMC (IMMC) Sciences and Technology (SST)

- Thermodynamics and fluid mechanics (TFL)
- Laboratoire d'Analyse, Caractérisation et Mise en oeuvre (ACAM)
- Conception, Réalisation et Essais de Dispositifs ElectroMécaniques (CRDM)
- Laboratoire Essais mécaniques, Structures et génie civil (EMSC)

Academic supervisor: <u>Yann Bartosiewicz</u> (https://uclouvain.be/repertoires/yann.bartosiewicz) Jury

• Président du Jury: <u>Jean-Didier Legat</u> (https://uclouvain.be/repertoires/jean-didier.legat)

• Secrétaire du Jury: Yann Bartosiewicz (https://uclouvain.be/repertoires/yann.bartosiewicz)

Useful Contact(s)

• Secrétariat: Isabelle Hennau (https://uclouvain.be/repertoires/isabelle.hennau)

UCL - Université catholique de Louvain Study Programme 2023-2024 GNUC2MC: Advanced Master in Nuclear Engineering