

FARM1BA - Introduction

Introduction

FARM1BA - Teaching profile

Learning outcomes

Students enrolled on the the Bachelor in Pharmacy course are preparing for the training offered in the Master in Pharmacy programme, on completion of which they will achieve the title of pharmacist. The aim of the programme is therefore to help the students become medication specialists able to improve patient health.

The training in the first year of the Bachelor programme is based on an in-depth study of the basic sciences (chemistry, biology, physics, anatomy, etc.) used in the context of pharmacy.

In the second year, the pharmaceutical element increases significantly, in particular via the study of pharmacology, medicinal plants, and an introduction to analytical chemistry and the chemical synthesis of medications.

The final year of the Bachelor programme further reinforces the foundation in pharmacy and initiates students into a work environment (compulsory work placement in a field of the student's choice). The programme as a whole enables students to acquire a base of knowledge and expertise in the basic sciences, as well as specialist training in pharmacy.

During the three years of the Bachelor's course, by coming to a better understanding of the use of a medication and its effect on the body, the students will develop their training and professional projects, which they will pursue throughout the Master's programme, with increasing independence.

On successful completion of this programme, each student is able to :

1. Demonstrate pharmaceutical expertise: use a body of concepts and knowledge in pharmacy and health

1a. Display command and understanding of the fundamental principles and essential concepts of the basic sciences in the practice of pharmacy.

1b. Assimilate knowledge of chemistry, physicochemistry, biochemistry, pharmacognosy and pharmacology useful in the synthesis, design and analysis of medications.

1c. Incorporate knowledge of anatomy, physiology, immunology, microbiology, nutrition, pharmacology and pharmacokinetics, pathology, medical biology, semiology and psychology in order to understand the action of a medication on the body and plan its use.

2. Scientific approach: resolve pharmaceutical problems by using their knowledge and critical thinking

2a. Understand a defined pharmaceutical problem or issue.

2b. Display command of the relevant tools and sources of information related to the problem or issue concerned.

2c. Analyse, interpret and compare the information in a robust manner.

2d. Summarise the fundamental and necessary elements related to the problem or issue concerned.

2e. Implement an experiment protocol to formulate, produce and characterise a medication.

2f. Learn how to work in a team.

3. Communication: communicate in an effective, robust and respectful manner from a professional perspective

3a. Tailor the communication to obtain and provide clear, complete and accurate information (verbal and/or written) in accordance with the relevant standards, if necessary in another language.

3b. Use information and communication technologies appropriately.

4. Sense of responsibility: act in an ethical and responsible manner

4a. Observe the rules of safety and professional best practice in a scientific context.

4b. Adopt ethical values and comply with scientific and professional agreements.

4c. Understand and respect the limits of their remit.

4d. Conduct themselves as responsible actors in their areas of expertise.

5. Quality: carry out self-assessment, supplement their knowledge and adapt their approach

5a. Develop a self-assessment approach to define their training needs in order to respond to specific situations.

5b. Utilise the individual and collective training tools in a robust and independent manner.

5c. Adapt to a variety of learning situations and take advantage of them while managing stress.

Year



				Year		
				1	2	3
○ WFARM1302	Pharmaceutical organic chemistry 🇺🇸	Raphaël Frédérick (coord.) Didier Lambert Séverine Ravez (compensates Raphaël Frédérick)	EX [q1+q2] [45h+30h] [6 Credits] 🌐 > English-friendly			X
○ WFARM1307	Physical pharmacy 🇺🇸	Rita Vanbever	EX [q2] [15h] [2 Credits] 🌐			X
○ WFARM1332	Pharmacologie générale, 2e partie 🇺🇸	Mireille Al Hsuayek Chantal Dessy (coord.)	EX [q1] [36h] [4 Credits] 🌐 > English-friendly			X
○ WFARM1324	Pharmacognosy 🇺🇸	Joëlle Leclercq	EX [q1] [22.5h+15h] [3 Credits] 🌐 > English-friendly			X
○ WFARM1325	Pharmacognosie : plantes médicinales 🇺🇸	Joëlle Leclercq	EX [q2] [22.5h+15h] [3 Credits] 🌐 > English-friendly			X
○ WFARM1300	Pharmacokinetics and metabolism of xenobiotics 🇺🇸	Nathalie Delzenne Laure Elens	EX [q1] [30h+30h] [4 Credits] 🌐 > English-friendly			X
○ WFARM1310	Inorganic drugs with use diagnosis and therapeutic 🇺🇸	Bernard Gallez	EX [q1] [30h] [3 Credits] 🌐			X

○ L'homme et la société, l'individu dans le monde professionnel (6 credits)

○ WFARM1160	Philosophy	Nicolas Cuneen (compensates Mylene Botbol) Charlotte Luyckx (compensates Mylene Botbol)	EX [q1] [30h] [3 Credits] 🌐	X		
○ LANGL1854	Medical English	Stéphanie Brabant Aurélie Deneumoustier Ariane Halleux Carlo Lefevre (coord.) Hila Peer Mark Theodore Pertuit				

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✂ Formation partielle à l'étranger (Erasmus) (27 credits)

L'étudiant autorisé à réaliser une partie de son parcours à l'étranger au 2^e quadrimestre du 3^e bloc annuel est dispensé de 12 crédits de la majeure et de 15 de l'approfondissement. Le programme suivi à l'étranger est déterminé en accord avec le responsable académique du programme de l'UCLouvain. Pour plus de renseignements, consulter la rubrique internationalisation et s'adresser au secrétariat de l'école de pharmacie.

o Minor or additional module (30 credits)

L'étudiant qui ne choisit pas l'approfondissement en sciences pharmaceutiques ou l'approfondissement en sciences pharmaceutiques - recherche-, choisit une mineure d'ouverture proposée par d'autres programmes, à raison de 15 crédits en BAC2 et 15 crédits en BAC3. Maximum 1 élément(s)

List of available minors

During the bachelor's of Pharmaceutical Sciences, the student has the opportunity to further his knowledge in the various pharmaceutical domains, by selecting in-depth study options.

Instead of these options, the bachelor's programme may likewise include an option of a " minor ", which will enable the student to open up new horizons. Minors in the following subjects : Biology, Chemistry, Law, Economics, Human Nutrition, Clinical Biomedical Sciences, Statistics, etc., may be envisaged, subject to the approval of the Teaching Committee of the School of Pharmacy.

- > [Minor in Law \(access\)](#) [en-prog-2023-minadroi]
- > [Minor in Antiquity: Egypt, Eastern World, Greece, Rome](#) [en-prog-2023-minanti]
- > [Minor in History of Art and Archeology](#) [en-prog-2023-minarke]
- > [Minor in Chinese studies](#) [en-prog-2023-minchin]
- > [Minor in Information and Communication](#) [en-prog-2023-mincomu]
- > [Minor in Culture and Creation](#) [en-prog-2023-mincucrea]
- > [Minor in Scientific Culture](#) [en-prog-2023-mincults]
- > [Minor in Development and Environment](#) [en-prog-2023-mindenv]
- > [Minor in Economics](#) [en-prog-2023-minecon]
- > [Minor in European Studies](#) [en-prog-2023-mineuro]
- > [Minor in French Studies \(*\)](#) [en-prog-2023-minfran]
- > [Minor in Gender Studies](#) [en-prog-2023-mingenre]
- > [Minor in Mangement \(basic knowledge\)](#) [en-prog-2023-minogest]
- > [Minor in History](#) [en-prog-2023-minhist]
- > [Minor in Human and Social Sciences](#) [en-prog-2023-minhuso]
- > [Minor in Arabic language and Islamic civilization](#)

Course prerequisites

The **table** below lists the activities (course units, or CUs) for which there are one or more prerequisites within the programme, i.e. the programme CU for which the learning outcomes must be certified and the corresponding credits awarded by the jury before registering for that CU.

These activities are also identified **in the detailed programme**: their title is followed by a yellow square.

Prerequisites and student's annual programme

As the prerequisite is for CU registration purposes only, there are no prerequisites within a programme year. Prerequisites are defined between CUs of different years and therefore influence the order in which the student will be able to register for the programme's CUs.

In addition, when the jury validates a student's individual programme at the beginning of the year, it ensures its coherence, meaning that it may:

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- WMD1106 - [ORGANIC CHEMISTRY](#)
 - WFARM1003 - [Practicals of general chemistry approach](#)
- WFARM1247** "[Traitement statistique des données](#)" has prerequisite(s) WMD1102
- WMD1102 - [Physique expérimentale et introduction mathématique aux sciences expérimentales \(1e partie\)](#)
- WFARM1282** "[Microbiologie générale](#)" has prerequisite(s) WMD1120P ET WMD1006
- WMD1120P - [General biology and an experimental approach to biology](#)
 - WMD1006 - [Cytology and general histology](#)
- WFARM1300** "[Pharmacocinétique et métabolisme des xénobiotiques](#)" has prerequisite(s) WFARM1221 ET WFARM1213
- WFARM1221 - [Biochemistry and molecular biology](#)
 - WFARM1213 - [Human physiology and basics of physiopathology](#)
- WFARM1302** "[Chimie pharmaceutique](#)" has prerequisite(s) WFARM1231 ET WFARM1232 ET WFARM1219
- WFARM1231 - [Organical chemistry of drugs](#)
 - WFARM1232 - [General Pharmacology](#)
 - WFARM1219 - [Biophysics applied to the drugs](#)
- WFARM1303** "[Biochimie médicale](#)" has prerequisite(s) WFARM1221 ET WFARM1213
- WFARM1221 - [Biochemistry and molecular biology](#)
 - WFARM1213 - [Human physiology and basics of physiopathology](#)
- WFARM1305** "[Eléments de pathologie humaine](#)" has prerequisite(s) WFARM1221 ET WFARM1212 ET WFARM1213
- WFARM1221 - [Biochemistry and molecular biology](#)
 - WFARM1212 - [Eléments de physiologie générale](#)
 - WFARM1213 - [Human physiology and basics of physiopathology](#)
- WFARM1306** "[Microbiologie médicale](#)" has prerequisite(s) WFARM1282
- WFARM1282 - [General microbiology](#)
- WFARM1307** "[Eléments de physico-chimie appliqués aux médicaments](#)" has prerequisite(s) WFARM1243 ET WFARM1219
- WFARM1243 - [Introduction à la chimie analytique](#)
 - WFARM1219 - [Biophysics applied to the drugs](#)
- WFARM1309** "[Stage d'immersion professionnelle dans le monde pharmaceutique](#)" has prerequisite(s) WFARM1213 ET WFARM1239 ET WFARM1232
- WFARM1213 - [Human physiology and basics of physiopathology](#)
 - WFARM1239 - [Computerized workshop and research on scientific information related to drugs.](#)
 - WFARM1232 - [General Pharmacology](#)
- WFARM1310** "[Médicaments inorganiques à usage diagnostique et thérapeutique](#)" has prerequisite(s) WFARM1219
- WFARM1219 - [Biophysics applied to the drugs](#)
- WFARM1311** "[Projet expérimental en sciences pharmaceutiques](#)" has prerequisite(s) LANGL1855 ET WFARM1247 ET WFARM1239
- LANGL1855 - [Medical English](#)
 - WFARM1247 - [Statistical data processing](#)
 - WFARM1239 - [Computerized workshop and research on scientific information related to drugs.](#)
- WFARM1312** "[Analyse instrumentale appliquée aux sciences pharmaceutiques](#)" has prerequisite(s) WFARM1243 ET WFARM1219
- WFARM1243 - [Introduction à la chimie analytique](#)
 - WFARM1219 - [Biophysics applied to the drugs](#)
- WFARM1313** "[Travaux pratiques d'analyse instrumentale](#)" has prerequisite(s) WFARM1243 ET WFARM1244 ET WFARM1219
- WFARM1243 - [Introduction à la chimie analytique](#)
 - WFARM1244 - [Travaux pratiques d'introduction à la chimie analytique](#)
 - WFARM1219 - [Biophysics applied to the drugs](#)
- WFARM1319** "[Pharmacognosie-étude de cas](#)" has prerequisite(s) WFARM1237 ET WFARM1238
- WFARM1237 - [Introduction botanique à la pharmacognosie 1re partie](#)
 - WFARM1238 - [Introduction botanique à la pharmacognosie 2e partie](#)
- WFARM1324** "[Pharmacognosie générale](#)" has prerequisite(s) WFARM1237 ET WFARM1238
- WFARM1237 - [Introduction botanique à la pharmacognosie 1re partie](#)
 - WFARM1238 - [Introduction botanique à la pharmacognosie 2e partie](#)
- WFARM1325** "[Pharmacognosie : plantes médicinales](#)" has prerequisite(s) WFARM1237 ET WFARM1238
- WFARM1237 - [Introduction botanique à la pharmacognosie 1re partie](#)
 - WFARM1238 - [Introduction botanique à la pharmacognosie 2e partie](#)
- WFARM1329** "[Compléments d'analyse instrumentale](#)" has prerequisite(s) WFARM1243 ET WFARM1219
- WFARM1243 - [Introduction à la chimie analytique](#)
 - WFARM1219 - [Biophysics applied to the drugs](#)
- WFARM1332** "[Pharmacologie générale, 2e partie](#)" has prerequisite(s) WFARM1213 ET WFARM1232
- WFARM1213 - [Human physiology and basics of physiopathology](#)
 - WFARM1232 - [General Pharmacology](#)
- WFARM1339** "[Compléments de pharmacocinétique](#)" has prerequisite(s) WFARM1221 ET WFARM1213
- WFARM1221 - [Biochemistry and molecular biology](#)

- WFARM1213 - [Human physiology and basics of physiopathology](#)
- WFARM1349** "[Séminaire intégré en sciences pharmaceutiques](#)" has prerequisite(s) WFARM1243 ET WFARM1231 ET WFARM1213 ET WFARM1232 ET WFARM1239
 - WFARM1243 - [Introduction à la chimie analytique](#)
 - WFARM1231 - [Organical chemistry of drugs](#)
 - WFARM1213 - [Human physiology and basics of physiopathology](#)
 - WFARM1232 - [General Pharmacology](#)
 - WFARM1239 - [Computerized workshop and research on scientific information related to drugs.](#)
- WFARM1359** "[Drug design en chimie pharmaceutique](#)" has prerequisite(s) WFARM1231 ET WFARM1232 ET WFARM1219
 - WFARM1231 - [Organical chemistry of drugs](#)
 - WFARM1232 - [General Pharmacology](#)
 - WFARM1219 - [Biophysics applied to the drugs](#)
- WFARM1369** "[Evaluation de la biodistribution et de l'effet d'un médicament par des méthodes non invasives](#)" has prerequisite(s) WFARM1232 ET WFARM1219
 - WFARM1232 - [General Pharmacology](#)
 - WFARM1219 - [Biophysics applied to the drugs](#)
- WFARM1370** "[Formation à la communication scientifique](#)" has prerequisite(s) LANGL1855 ET WFARM1239
 - LANGL1855 - [Medical English](#)
 - WFARM1239 - [Computerized workshop and research on scientific information related to drugs.](#)
- WFARM1379** "[Exercices pratiques de biochimie médicale](#)" has prerequisite(s) WFARM1221 ET WFARM1213
 - WFARM1221 - [Biochemistry and molecular biology](#)
 - WFARM1213 - [Human physiology and basics of physiopathology](#)
- WFARM1380** "[Stage d'immersion en recherche pharmaceutique](#)" has prerequisite(s) LANGL1855 ET WFARM1247 ET WFARM1239
 - LANGL1855 - [Medical English](#)
 - WFARM1247 - [Statistical data processing](#)
 - WFARM1239 - [Computerized workshop and research on scientific information related to drugs.](#)
- WFARM1383** "[Génétique et biotechnologie pharmaceutiques](#)" has prerequisite(s) WFARM1221 ET WFARM1282
 - WFARM1221 - [Biochemistry and molecular biology](#)
 - WFARM1282 - [General microbiology](#)
- WSBIM1334F** "[Immunologie générale \(partim FARM\)](#)" has prerequisite(s) WFARM1221 ET WFARM1282
 - WFARM1221 - [Biochemistry and molecular biology](#)
 - WFARM1282 - [General microbiology](#)

[The programme's cour4e8250fh3 7.64400005 Tm \[\(LANGL1855 ET WFARM1247 ET WFARM1239](#)

o Majeure

o Des atomes, des molécules et des systèmes qui les régissent

o WMD1102	Physique expérimentale et introduction mathématique aux sciences expérimentales (1e partie)	Fabio Maltoni Geoffroy Piroux	ES [q1] [60h +21h] [8 Credits]
o WMD1104	Physique expérimentale et introduction mathématique aux sciences expérimentales (2e partie)	Michel Herquet	ES [q2] [30h +21h] [5 Credits]
o WMD1105	Chimie générale et minérale	Olivier Riant Alexandru Vlad	ES [q1] [60h +30h] [9 Credits]
o WMD1106	ORGANIC CHEMISTRY	Mohamed Ayadim Olivier Riant (coord.) Michael Singleton	ES [q2] [60h +30h] [9 Credits]
o WFARM1003	Practicals of general chemistry approach	Bernadette Schmitz Alexandru Vlad (coord.)	ES [q2] [0h +30h] [2 Credits]

o De la cellule végétale à la cellule animale, des tissus à l'être humain

o WMD1120P	General biology and an experimental approach to biology	Jean Baptiste Demoulin (coord.)	ES [q1] [65h +25h] [9 Credits] > English- friendly
o WMD1006	Cytology and general histology	Christophe Pierreux	ES [q2] [10h +40h] [5 Credits]
o WFARM1009	Elements of general and functional anatomy	Christine Galant (coord.) Catherine Hubert Alain Poncelet	ES [q2] [30h] [3 Credits]

o Du médicament

o WFARM1004	The molecular aspect of drugs	Mohamed Ayadim Raphaël Frédéric (coord.)	ES [q2] [15h +15h] [2 Credits] > English- friendly
o WFARM1008	Design of the drug	Giulio Muccioli	ES [q2] [15h +15h] [2 Credits]

o L'homme et la société, l'individu dans le monde professionnel

o WFARM1160	Philosophy	Nicolas Cuneen (compensates Mylene Botbol) Charlotte Luyckx (compensates Mylene Botbol)	ES [q1] [30h] [3 Credits]
o LANGL1854	Medical English	Stéphanie Brabant Aurélie Deneumoustier Ariane Halleux Carlo Lefevre (coord.) Hila Peer Mark Theodore Pertuit	ES [q2] [30h] [3 Credits]

FARM1BA - 2ND ANNUAL UNIT

- 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
- △ ⊕ 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, ...)

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

⌘ Additional module in Pharmacy

○ Deuxième bloc annuel de bachelier

○ LANGL1855	Medical English 🇺🇸	Timothy Byrne (coord.) Aurélie Deneumoustier Carlo Lefevre (coord.)	EN [q1 or q2] [30h] [3 Credits] 🌐
○ WFARM1219	Biophysics applied to the drugs 🇺🇸	Bernard Gallez (coord.) Joseph Lorent	FR 🌐

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○ WFARM1324	Pharmacognosy 🇺🇸	Joëlle Leclercq	FR [q1] [22.5h +15h] [3 Credits] 🌐 > English- friendly
○ WFARM1325	Pharmacognosie : plantes médicinales 🇺🇸	Joëlle Leclercq	FR [q2] [22.5h +15h] [3 Credits] 🌐 > English- friendly
○ WFARM1300	Pharmacokinetics and metabolism of xenobiotics 🇺🇸	Nathalie Delzenne Laure Elens	FR [q1] [30h +30h] [4 Credits] 🌐 > English- friendly
○ WFARM1310	Inorganic drugs with use diagnosis and therapeutic 🇺🇸	Bernard Gallez	FR [q1] [30h] [3 Credits] 🌐

⌘ Additional module in Pharmacy

○ Troisième bloc annuel de bachelier

Dans le cadre du complément à la majeure en bloc annuel 3, l'étudiant choisit soit de poursuivre l'approfondissement débuté en 2e bloc annuel, soit de bifurquer de l'approfondissement en sciences pharmaceutiques vers l'approfondissement en sciences pharmaceutiques - recherche, soit de réaliser une partie de sa formation à l'étranger (Erasmus).

⌘ Poursuite de l'approfondissement (9 crédits obligatoires et 6 crédits au choix)

○ WFARM1309	Internships in the pharmaceutical world 🇺🇸
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⌘ WFARM1375	Drugs and sustainable development	Nathalie Delzenne (coord.) Raphaël Frédérick Pauline Modrie Anne Spinewine
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FARM1BA - Information

Access Requirements

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.

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

SUMMARY

- [General access requirements](#)
- [Specific access requirements](#)
- [Access based on validation of professional experience](#)
- [Special requirements to access some programmes](#)

General access requirements

Except as otherwise provided by other specific legal provisions, admission to undergraduate courses leading to the award of a Bachelor's degree will be granted to students with one of the following qualifications :

1. A Certificate of Upper Secondary Education issued during or after the 1993-1994 academic year by an establishment offering full-time secondary education or an adult education centre in the French Community of Belgium and, as the case may be, approved if it was issued by an educational institution before 1 January 2008 or affixed with the seal of the French Community if it was issued after this date, or an equivalent certificate awarded by the Examination Board of the French Community during or after 1994;
2. A Certificate of Upper Secondary Education issued no later than the end of the 1992-1993 academic year, along with official documentation attesting to the student's ability to pursue higher education for students applying for a full-length undergraduate degree programme;
3. A diploma awarded by a higher education institution within the French Community that confers an academic degree issued under the above-mentioned Decree, or a diploma awarded by a university or institution dispensing full-time higher education in accordance with earlier legislation;
4. A higher education certificate or diploma awarded by an adult education centre;
5. A pass certificate for one of the [entrance examinations](https://uclouvain.be/fr/etudier/inscriptions/examens-admission.html) (https://uclouvain.be/fr/etudier/inscriptions/examens-admission.html) organized by higher education institutions or by an examination board of the French Community; this document gives admission to studies in the sectors, fields or programmes indicated therein;
6. A diploma, certificate of studies or other qualification similar to those mentioned above, issued by the Flemish Community of Belgium, the German Community of Belgium or the Royal Military Academy;
7. A diploma, certificate of studies or other qualification obtained abroad and deemed equivalent to the first four mentioned above by virtue of a law, decree, European directive or international convention;

Note:

Requests for equivalence must be submitted to the Equivalence department ([Service des équivalences](#)) of the Ministry of Higher Education and Scientific Research of the French Community of Belgium in compliance with the official deadline.

The following two qualifications are automatically deemed equivalent to the Certificate of Upper Secondary Education (Certificat d'enseignement secondaire supérieur – CESS):

- European Baccalaureate issued by the Board of Governors of a European School,
- International Baccalaureate issued by the International Baccalaureate Office in Geneva.

8. Official documentation attesting to a student's ability to pursue higher education (diplôme d'aptitude à accéder à l'enseignement supérieur - DAES), issued by the Examination Board of the French Community.

Specific access requirements

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Entity

Structure entity	SSS/FASB/FARM
Denomination	(FARM)
Faculty	Faculty of Pharmacy and Biomedical Sciences (FASB)
Sector	Health Sciences (SSS)
Acronym	FARM
Postal address	Avenue Mounier 73 - bte B1.73.03 1200 Woluwe-Saint-Lambert Tel: +32 (0)2 764 73 60

Academic supervisor: Françoise Van Bambeke (<https://uclouvain.be/repertoires/francoise.vanbambeke>)

Other academic Supervisor(s)

- Giulio Muccioli (<https://uclouvain.be/repertoires/giulio.muccioli>)

Jury

- Président des 3 années de bachelier: Bernard Gallez (<https://uclouvain.be/repertoires/bernard.gallez>)
- Secrétaire de jury de la 1re année: Giulio Muccioli (<https://uclouvain.be/repertoires/giulio.muccioli>)

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