



## FARM1BA - Introduction

### Introduction

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## FARM1BA - Teaching profile

### Learning outcomes

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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.

## Programme structure

The bachelor's of Pharmaceutical Sciences represents 180 credits.

A credit refers to " the volume of work that the student needs to produce to attain the study objectives".

The " major " of the programme consists of basic foundation studies for 60 credits (1st year) and specific studies ( 2nd and 3rd year) for 90 credits.

The major is completed by a course of 30 credits - an option, such as those offered on the "options menu", (advanced studies in Pharmaceutical Sciences), or in the form of a " minor " (an opening course in other disciplines). These courses of 30 credits may be followed on a parallel with the specific course.

### Principal Subjects

The bachelor's studies enable the student to learn about the functioning of life, from the atom to society.

#### *Atoms, molecules and the systems which govern them*

General Chemistry, Analytical, Inorganic and Organic Life, - Biochemistry - Applied Physics - Biophysics - Processing Applied Data - Instrumental Analysis.

#### *From plant cells to animal cells, from organic tissue to the human being*

General, Cellular, Special and Molecular Biology - Cytology and Histology - Elements of Functional Anatomy - Immunology - Physiology - Microbiology - General Pathology - Botanical Introduction to Pharmacognosy - Medical Biochemistry

#### *Medication*

Organic Chemistry applied to Medication - Conception of Medication - Pharmacology - Introduction to Pharmacotherapy - Pharmacokinetics and Xeno-biotic Metabolism - Pharmacognosy - Pharmaceutical Chemistry

#### *Man and Society, the individual in the professional world*

Philosophy - English

Immersion internship in a pharmaceutical milieu and the corresponding introduction courses

## FARM1BA Programme

## Detailed programme by subject

- Mandatory
- ✘ Optional
- △ Not offered in 2024-2025
- ⊖ Not offered in 2024-2025 but offered the following year
- ⊕ Offered in 2024-2025 but not the following year
- △ ⊕ Not offered in 2024-2025 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...)

Year

1 2 3

### o Majeure (150 credits)


#### o Des atomes, des molécules et des systèmes qui les régissent (67 credits)

● WMD1102	Physique expérimentale et introduction mathématique aux sciences expérimentales (1e partie)	Alexandre Lazarescu (compensates) Eduardo Cortina Gil Fabio Maltoni	FR [q1] [60h+21h] [8 Credits] 🌐	X		
● WMD1104	Physique expérimentale et introduction mathématique aux sciences expérimentales (2e partie)	Bryan Debin	FR [q2] [30h+21h] [5 Credits] 🌐	X		
● WMD1105	Chimie générale et minérale	Olivier Riant Alexandru Vlad	FR [q1] [60h+30h] [9 Credits] 🌐	X		
● WMD1106	ORGANIC CHEMISTRY	Mohamed Ayadim Olivier Riant Michael Singleton	FR [q2] [60h+30h] [9 Credits] 🌐	X		



				Year		
				1	2	3
○ WFARM1302	Pharmaceutical organic chemistry 	Raphaël Frédéric (coord.) Didier Lambert Quentin Spillier	FR [q1+q2] [45h+30h] [6 Credits]  > English-friendly			X
○ WFARM1307	Physical pharmacy 	Rita Vanbever	FR [q2] [15h] [2 Credits] 			X
○ WFARM1332	General pharmacology, second part 	Mireille Al Houayek Chantal Dessy (coord.)	FR [q1] [36h] [5 Credits]  > English-friendly			X
○ WFARM1324	General pharmacognosy 	Didier Lambert	FR [q1] [15h+15h] [2 Credits]  > English-friendly			X
○ WFARM1325	Specialized Pharmacognosy, including phytotherapy 	Michel Frederich Allison Ledoux	FR [q2] [15h+10h] [2 Credits]  > English-friendly			X
○ WFARM1300	Pharmacokinetics and metabolism of xenobiotics 	Nathalie Delzenne Laure Elens	FR [q1] [30h+30h] [4 Credits]  > English-friendly			X
○ WFARM1310	Inorganic drugs with use diagnosis and therapeutic 	Bernard Gallez	FR [q1] [30h] [3 Credits] 			X

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

○ WFARM1160	Philosophy	Nathalie Grandjean	FR [q1] [30h] [3 Credits] 	X		
○ LANGL1854	Medical English	Stéphanie Brabant Aurélie Deneumoustier Ariane Halleux Marielle Henriet Carlo Lefevre (coord.) Hila Peer Mark Theodore Pertuit				







## List of available minors

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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-2024-minadroi*]
- > [Minor in Antiquity: Egypt, Eastern World, Greece, Rome](#) [*en-prog-2024-minanti*]
- > [Minor in History of Art and Archeology](#) [*en-prog-2024-minarke*]
- > [Minor in Chinese studies](#) [*en-prog-2024-minchin*]
- > [Minor in Information and Communication](#) [*en-prog-2024-mincomu*]
- > [Minor in Culture and Creation](#)



- 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 WMD1102
- WFARM1243 - [Introduction to analytical chemistry](#)
  - WMD1102 - [Physique expérimentale et introduction mathématique aux sciences expérimentales \(1e partie\)](#)
- 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 to analytical chemistry](#)
  - WFARM1219 - [Biophysics applied to the drugs](#)
- WFARM1313** "Travaux pratiques d'analyse instrumentale" has prerequisite(s) WFARM1243 ET WFARM1244 ET WFARM1219
- WFARM1243 - [Introduction to analytical chemistry](#)
  - 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 - [Botanical introduction to pharmacognosy](#)
  - WFARM1238 - [Active ingredients of natural origin](#)
- WFARM1324** "Pharmacognosie générale" has prerequisite(s) WFARM1237 ET WFARM1238
- WFARM1237 - [Botanical introduction to pharmacognosy](#)
  - WFARM1238 - [Active ingredients of natural origin](#)
- WFARM1325** "Pharmacognosie spéciale, y compris phytothérapie" has prerequisite(s) WFARM1237 ET WFARM1238
- WFARM1237 - [Botanical introduction to pharmacognosy](#)
  - WFARM1238 - [Active ingredients of natural origin](#)
- WFARM1329** "Compléments d'analyse instrumentale" has prerequisite(s) WFARM1243 ET WFARM1219
- WFARM1243 - [Introduction to analytical chemistry](#)
  - 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 to analytical chemistry](#)
  - 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 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.

## Detailed programme per annual block

### FARM1BA - 1ST ANNUAL UNIT

- Mandatory
- ⊗ Optional
- △ Not offered in 2024-2025
- ⊙ Not offered in 2024-2025 but offered the following year
- ⊕ Offered in 2024-2025 but not the following year
- △ ⊕ Not offered in 2024-2025 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...)

### o Majeure

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

○ WMD1102	<a href="#">Physique expérimentale et introduction mathématique aux sciences expérimentales (1e partie)</a>	Alexandre Lazarescu (compensates) Eduardo Cortina Gil Fabio Maltoni	FR [q1] [60h +21h] [8 Credits] 🌐
○ WMD1104	<a href="#">Physique expérimentale et introduction mathématique aux sciences expérimentales (2e partie)</a>	Bryan Debin	FR [q2] [30h +21h] [5 Credits] 🌐

○ WMD1105	Chimie générale et minérale	Olivier Riant Alexandru Vlad	PS [q1] [60h +30h] [9 Credits]
○ WMD1106	ORGANIC CHEMISTRY	Mohamed Ayadim Olivier Riant Michael Singleton	PS [q2] [60h +30h] [9 Credits]
○ WFARM1003	Practicals of general chemistry approach	Bernadette Schmitz Alexandru Vlad (coord.)	PS [q2] [0h +30h] [2 Credits]

**FARM1BA - 2ND ANNUAL UNIT**

- Mandatory
- ⊗ Optional
- △ Not offered in 2024-2025
- ⊙ Not offered in 2024-2025 but offered the following year
- ⊕ Offered in 2024-2025 but not the following year
- △ ⊕ Not offered in 2024-2025 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...)

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

○ WFARM1243	<a href="#">Introduction to analytical chemistry</a> ■	Marie-France Herent Giulio Muccioli (coord.)	[FR] [q2] [30h] [4 Credits] 🌐 > English- friendly
○ WFARM1244	<a href="#">Travaux pratiques d'introduction à la chimie analytique</a> ■	Marie-France Herent Giulio Muccioli (coord.)	[FR] [q2] [0h +105h] [3 Credits] 🌐
○ WFARM1231	<a href="#">Organical chemistry of drugs</a> ■	Mohamed Ayadim Raphaël Frédéric (coord.)	[FR] [q1+q2] [45h +120h] [10 Credits] 🌐 > English- friendly
○ WFARM1221			

## ⌘ 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	EN [q1] [30h +15h] [3 Credits] 🌐
○ WFARM1247	Statistical data processing 🇺🇸	Eugen Pircalabelu	EN [q2] [15h +15h] [3 Credits] 🌐
○ WFARM1239			

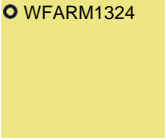
***FARM1BA - 3RD ANNUAL UNIT***

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WFARM1324



⌘ WFARM1375	Drugs and sustainable development	
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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](#) 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

- Access to bachelor programmes for candidates of nationality outside the European Union who are not assimilated to Belgian nationals is subject to the following criteria:
  - not have obtained a secondary education diploma for more than 3 years maximum. Example: for an admission application for the academic year 2024-2025, you must have obtained your diploma during the academic years 2021-2022, 2022-2023 ou 2023-2024. In the French Community of Belgium, the academic year runs from September 14 to September 13
  - not already hold an undergraduate degree
- Candidates, whatever their nationality, with a secondary school diploma **from a country outside the European Union**, must have obtained an average of 13/20 minimum or, failing that, have obtained this average, have passed one year of study in Belgium (for example special Maths / sciences). A non-successful year will not be taken into consideration.

- For any secondary school diploma **from a European Union country**, the admission request must contain the equivalence of your

## Specific professional rules

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These studies lead to a professional title subject to specific rules or restrictions on professional accreditation or establishment.

You will find the necessary legal information by [clicking here](#).

## Teaching method

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The training provided in the Bachelor in Pharmacy programme is based on a variety of teaching methods enabling an integrated approach to the theoretical and practical aspects of the different disciplines with regard to medication.

The theory courses are aimed at developing a specialised knowledge base, using practical examples illustrating the complexity of pharmacy. Most of the theory courses are also associated with practical laboratory work, exercises and seminars during which the students are actively engaged in their training.

Several teaching units invite the students to learn about pharmacy through individual or group work. The aim of such work is to develop skills in self-learning, summarising and communication.

Finally, through work placements in a professional environment, the Bachelor in Pharmacy training enables the students to discover for themselves the various aspects of the pharmacist's job. The theory-based and practical training involves pharmacy experts throughout the academic programme. This specialist supervision ensures a balance between the expected learning outcomes and current expectations of society in the field of pharmacy.

## 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".***

Each course is subject to one or more evaluations, in the form of written and/or oral exams, organised in two main sessions: one in January and the other in June. The September session is a re-sit opportunity. The specific details of the exam are communicated to the students at the start of each course. These evaluations are intended to assess the learning outcomes defined in the course objectives.

With regard to the practical elements of the training (practicals, seminars and projects), the evaluation is ongoing and may include a final assessment. It places the emphasis on expertise in the fields of health science and pharmacy and on the students' ability to tackle a pharmaceutical problem using a scientific approach. The evaluation of certain seminars and work is aimed at appraising the incorporation of the different pharmacy disciplines by the students.

## Possible trainings at the end of the programme

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Positioning of the programme within the University cursus

The bachelor's degree entitles access to the master's of Pharmaceutical Sciences. Complementary masters with a professional vocation are organised in the practice of industrial pharmacy, clinical biology, hospital pharmacy, clinical hospital pharmacy, pharmaceutical technology.

Other studies accessible upon completion of the programme

Other masters within the Faculty of Medicine, as well as some programmes from other faculties, may be accessible subject to certain prerequisites.

## Contacts

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### Curriculum Management

## 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](#)

Other academic Supervisor(s)

- [Giulio Muccioli](#)

## Jury

- Président des 3 années de bachelier: [Bernard Gallez](#)
- Secrétaire de jury de la 1re année: [Giulio Muccioli](#)

Useful Contact(s)

- Personne de contact de la 1re année de bachelier: [secretariat-bac1-fasb@uclouvain.be](mailto:secretariat-bac1-fasb@uclouvain.be)
- Personne de contact des 2e et 3e années de bachelier: [secretariat-farm@uclouvain.be](mailto:secretariat-farm@uclouvain.be)
- Responsable administrative de la faculté de pharmacie et de sciences biomédicales: [Johanne Garny](#)
- Conseiller aux études: [Marie-France Herent](#)

