

**At Bruxelles Woluwe - 180 credits - 3 years - Day schedule - In French**Dissertation/Graduation Project : **NO** - Internship : **YES**Activities in English: **NO** - Activities in other languages : **NO**Activities on other sites : **NO**Main study domain : **Sciences biomédicales et pharmaceutiques**Organized by: **Faculty of Pharmacy and Biomedical Sciences (FASB)**Programme acronym: **FARM1BA** - Francophone Certification Framework: 6**Table of contents**

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## FARM1BA - Introduction

### Introduction

#### Introduction

The training we offer is interdisciplinary, designed to produce pharmacists who are experts in medicines, versatile, innovators, and committed healthcare professionals serving patients and society.

The pharmacy profession is constantly evolving, particularly due to scientific, technological, and societal advances that influence the skills required to perform the various roles of a pharmacist.

The pharmaceutical sciences program trains pharmacists to fully fulfill their role as practitioners of the art of healing, in collaboration with other healthcare professionals. It aims to give them the ability to integrate basic sciences (chemistry, physics, biology) to design and understand the activity of drugs, evaluate their efficacy and safety, as well as prepare and dispense them and provide advice on their use, in accordance with pharmaceutical regulations and ethics. It prepares future graduates for the current demands of the profession and the major challenges facing society. At the end of the first cycle, you will:

- will have received solid scientific training clearly focused on pharmaceutical sciences;
- will have developed technical skills enabling you to apply theoretical concepts to specific pharmaceutical issues, to understand experimental approaches or technical procedures specific to pharmaceutical activities in research, development, quality assurance, or basic compounding;
- have the opportunity to familiarize yourself with one of the professional aspects of the pharmacy profession through an internship.

#### Your profile

An interest in chemistry and biology, an attraction to experimental work, a taste for innovation, good communication skills, a desire to contribute to human health, and a dose of enthusiasm combined with scientific rigor are the desired qualities.

But the main factor in your success is you! You will need to persevere, work hard throughout the year, and not be discouraged by setbacks, with a view to surpassing yourself. Finally, you will need to manage your work and leisure time according to your learning abilities.

#### Your future job

While half of graduates choose to work in retail pharmacy (as a pharmacy owner, manager, assistant, or traveling pharmacist), a growing number of graduates are moving into professions in the industry (research, production, clinical studies, regulatory affairs, pharmacometrics), in hospitals (hospital and clinical pharmacists, radiopharmacists, biological pharmacists) and in the public sector (quality control, healthcare, research, and teaching).

These studies lead to a professional qualification subject to specific rules.

#### Your programme

The bachelor's degree offers you:

- training structured around four areas: "physics-chemistry," "biology-pharmacology," "physiopathology-medicine-patient," and "society-communication";
- courses in fundamental disciplines (biology, physics, chemistry, etc.) applied to pharmaceutical sciences from the first year of the bachelor's degree
- rigorous mastery of an experimental protocol: from information management to the production, interpretation, and presentation of results;
- the opportunity to complete an internship in one of the sectors open to pharmacists (pharmacy, hospital, industry, research or clinical biology laboratory, among others).
- a strong practical component (practical work and role-playing exercises, problem-based learning, personalized work in small groups, oral presentations).

Once you have obtained your bachelor's degree, you will continue your training with a Master's degree in Pharmaceutical Sciences.

## FARM1BA - Teaching profile

### Learning outcomes

The challenge that bachelor's students in pharmaceutical sciences are preparing to take on is to get the best possible training to tackle the master's degree in pharmaceutical sciences, at the end of which they will obtain the title of pharmacist. The ultimate goal is to enable students to become true drug specialists with a view to contributing to patient health in collaboration with other healthcare professionals.

The first year of the bachelor's program focuses mainly on an in-depth study of the fundamental sciences (chemistry, biology, physics, anatomy, histology, physiology, etc.) in the context of pharmaceutical sciences. This is complemented by the basics of pharmacology and an introduction to philosophy, English, and sustainable development in health. From the second year onwards, the pharmaceutical dimension is expanded, in particular through more advanced study of pharmacology, an introduction to analytical chemistry and the chemical synthesis of drugs, and pharmacokinetics. The third year of the bachelor's program further strengthens the focus on pharmaceutical sciences with an introduction to galenic pharmacy and integrated thematic courses in pathophysiology, biomarkers, and special pharmacology. It also provides an initial introduction to a professional environment (mandatory internship in a field of your choice). The bachelor's degree program provides students with a foundation of knowledge and skills in basic sciences, as well as specific training in pharmaceutical sciences.

During the three annual bachelor's degree blocks, through an integrative understanding of how a drug acts on the body and its use, students will develop their training and career plans, which they will pursue during the master's program with increasing autonomy.

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, physical chemistry, biophysics, and instrumental analysis useful in the synthesis, design, analysis and formulation of drugs.

1c Assimilate knowledge of anatomy, histology, biology, biochemistry and molecular biology, physiology and pathology, immunology, microbiology, medical biochemistry, pharmacognosy, pharmacology, and pharmacokinetics to understand the action of a medication on the body and plan its use.

1d Assimilate knowledge of public health, epidemiology, evidence-based practice, and communication necessary to become a committed healthcare professional serving patients and society.

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

2a Understand a defined pharmaceutical problem or issue.

2b Use relevant tools and reliable, evidence-based sources of information, and make judicious use of artificial intelligence resources to answer the question posed.

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

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

2e Implement an experiment protocol to produce, analyze, characterize and formulate 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 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 Know and respect the limits of your field of activity

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

4e Assimilate sustainable development concepts ("one health" approach) into a responsible approach

5 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 Utilize the individual and collective training tools in a robust, independent and proactive manner.

5c Adapt to a variety of learning situations and take advantage of them to define your professional goals.

## Programme structure

The Bachelor of Science in Pharmaceutical Sciences program totals 180 credits and consists solely of a major. It is structured as a continuum of subjects that span the three years of the program and continue into the Master's program. These continuums are organized according to the following themes: (a) From molecule to medicine; (b) From drug to patient; (c) From professional to healthcare provider. They are accompanied by cross-disciplinary integration activities in pharmaceutical sciences throughout the program.

## FARM1BA Programme

## Detailed programme by subject

- Mandatory
- ⊗ Optional
- △ Not offered in 2026-2027
- ⊖ Not offered in 2026-2027 but offered the following year
- ⊕ Offered in 2026-2027 but not the following year
- △ ⊕ Not offered in 2026-2027 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 Major (180 credits)

#### o From Molecule to Medicine (66 credits)

○ WPHAR1100	Elements of Physics for Pharmaceutical Sciences	Bernard Gallez (coord.)	(FR) [q1] [25h] [4 Credits] 🌐	X		
○ WPHAR1101	Inorganic Medicines: From Physics to Diagnostic and Therapeutic Uses	Bernard Gallez	(FR) [q2] [25h] [4 Credits] 🌐	X		
○ WFASB1100	General Chemistry		(FR) [q1] [60h+26h] [8 Credits] 🌐	X		
○ WFASB1101	Organic Chemistry Applied to Pharmaceutical and Biomedical Sciences	Raphaël Frédérick Olivier Riant	(FR) [q2] [60h+30h] [9 Credits] 🌐	X		
○ WPHAR1200	Biophysics Applied to Medicines ■		(FR) [q1] [30h+15h] [4 Credits] △ 🌐		X	
○ WPHAR1201	Structure and Synthesis Strategy of Medicines ■		(FR) [q1] [36h+60h] [6 Credits] △ 🌐		X	
○ WPHAR1202	Introduction to Analytical Chemistry ■		(FR) [q2] [30h+60h] [6 Credits] △ 🌐		X	
○ WPHAR1203	Biochemistry and Molecular Biology ■		(FR) [q1] [60h+37.5h] [8 Credits] △ 🌐		X	
○ WPHAR1301	Instrumental Analysis ■		(FR) [q1] [30h+90h] [6 Credits] △ 🌐			X
○ WPHAR1302	Principles of Medicinal Chemistry		(FR) [q2] [45h+30h] [6 Credits] △ 🌐			X
○ WPHAR1303	Physical Chemistry Applied to Medicine ■		(FR) [q1] [15h] [2 Credits] △ 🌐			X
○ WPHAR1304	Pharmaceutical Technology (Part 1) ■		(FR) [q2] [30h+12h] [3 Credits] △ 🌐			X

#### o From Drug to Patient (83 credits)

○ WFASB1102	Biology	Charles De Smet Jean Baptiste Demoulin Pascal Kienlen-Campard	(FR) [q1] [60h+10h] [8 Credits] 🌐	X		
○ WPHAR1102	Elements of Anatomy and Histology		(FR) [q2] [40h] [6 Credits] 🌐	X		
○ WPHAR1103	Cell Physiology and Cell Biology Applied to Medicine	Olivier Feron (coord.)	(FR) [q2] [25h] [4 Credits] 🌐	X		
○ WPHAR1104	Bases of Pharmacology	Emmanuel Hermans	(FR) [q2] [25h+7.5h] [5 Credits] 🌐	X		

				Year		
				1	2	3
○ WPHAR1105	Introduction to Medicine, Pharmaceutical Information Sources, and the Pharmacy Profession	Didier Lambert Giulio Muccioli (coord.) Hélène Thriot	EB [q1] [35h+30h] [5 Credits]	x		
○ WFASB1200	Microbiology		EB [q1] [20h+15h] [3 Credits]		x	
○ WPHAR1204	Drugs of Natural Origin		EB [q1] [45h+0h] [4 Credits]		x	
○ WPHAR1205	Pharmacokinetics and Metabolism of Xenobiotics		EB [q2] [30h+30h] [4 Credits]		x	
○ WPHAR1206	Bases of Pharmacology (Part 2)		EB [q2] [30h+5h] [4 Credits]		x	
○ WPHAR1207	Human Physiology		EB [q2] [60h] [7 Credits]		x	
○ WPHAR1208	Statistical Data Analysis		EB [q2] [15h+15h] [3 Credits]		x	
○ WPHAR1305	Pharmacokinetics and Pharmacogenomics		EB [q1] [22.5h] [3 Credits]			x
○ WPHAR1306	Pathophysiology, Biomarkers, Clinical Pharmacology: Cardiovascular System, Blood and Coagulation, and Cancer		EB [q1] [57h+8h] [6 Credits]			x
○ WPHAR1307	Pathophysiology, Biomarkers, Clinical Pharmacology: Hormonal and Digestive Systems		EB [q1] [36h+8h] [4 Credits]			x
○ WPHAR1308	Pathophysiology, Biomarkers, Clinical Pharmacology: Infectious Diseases		EB [q2] [55h+8h] [6 Credits]			x
○ WPHAR1309	Pathophysiology, Biomarkers, Clinical Pharmacology: Central Nervous and Respiratory Systems, Pain and Inflammation, Allergy and Ophthalmology		EB [q2] [47h+8h] [6 Credits]			x
○ WPHAR1310	Immunology and Vaccines		EB [q1] [30h] [3 Credits]			x
○ WPHAR1311	Integrative Seminar in Clinical Pharmacology		EB [q1+q2] [4h+26h] [2 Credits]			x

○ From Professional to Healthcare Provider (25 credits)

○ LANGL1854	Medical English <i>Les étudiant.es inscrit.es en bachelier en sciences pharmaceutiques doivent suivre le cours au Q1</i>	Stéphanie Brabant Aurélie Deneumoustier Ariane Halleux Carlo Lefevre (coord.) Mark Theodore Pertuit	EB [q1 or q2] [30h] [3 Credits]	x		
○ WFASB1103	Philosophy – foundations of science	Charles Pence	EB [q1] [15h] [2 Credits]	x		
○ WPHAR1106	Sustainable development and health	Nathalie Delzenne Didier Lambert	EB [q2] [15h] [2 Credits]	x		
○ LANGL1855	Medical English	Timothy Byrne (coord.) Aurélie Deneumoustier Carlo Lefevre (coord.)	EB [q1 or q2] [30h] [3 Credits]		x	
○ WPHAR1209	Medicines, Population, and Health Care Systems		EB [q1] [20h+10h] [3 Credits]		x	
○ WPHAR1210	Scientific and Interpersonal Communication		EB [q1] [15h+15h] [3 Credits]		x	
○ WPHAR1312	Epidemiology and Evidence-based Practice		EB [q1] [30h+20h] [4 Credits]			x
○ WPHAR1313	Orientation Internship (4 weeks)		EB [q2] [7.5h] [5 Credits]			x

○ Pharmaceutical Integration (6 credits)

○ WPHAR1211	Pharmaceutical Sciences Integration Exercise		EB [q2] [5h+10h] [2 Credits]		x	
○ WPHAR1314	Integrated Seminar in Pharmaceutical Sciences		EB [q2] [45h] [4 Credits]			x

## 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:

- require the student to combine registration in two separate CUs which it considers necessary from a pedagogical point of view.
- transform a prerequisite into a corequisite if the student is in the final year of a degree course.

For more information, please consult the [Academic Regulations and Procedures](#).

### # Prerequisites list

<b>LANGL1855</b>	" <a href="#">Anglais médical</a> " has prerequisite(s) LANGL1854 <ul style="list-style-type: none"> <li>• LANGL1854 - <a href="#">Medical English</a></li> </ul>
<b>WFASB1200</b>	" <a href="#">Microbiologie générale</a> " has prerequisite(s) WFASB1102 <ul style="list-style-type: none"> <li>• WFASB1102 - <a href="#">Biology</a></li> </ul>
<b>WPHAR1200</b>	" <a href="#">Biophysique appliquée aux médicaments</a> " has prerequisite(s) WFASB1101 ET WPHAR1100 <ul style="list-style-type: none"> <li>• WFASB1101 - <a href="#">Organic Chemistry Applied to Pharmaceutical and Biomedical Sciences</a></li> <li>• WPHAR1100 - <a href="#">Elements of Physics for Pharmaceutical Sciences</a></li> </ul>
<b>WPHAR1201</b>	" <a href="#">Structure et stratégie de synthèse des médicaments</a> " has prerequisite(s) WFASB1101 <ul style="list-style-type: none"> <li>• WFASB1101 - <a href="#">Organic Chemistry Applied to Pharmaceutical and Biomedical Sciences</a></li> </ul>
<b>WPHAR1202</b>	" <a href="#">Introduction à la chimie analytique</a> " has prerequisite(s) WFASB1100 <ul style="list-style-type: none"> <li>• WFASB1100 - <a href="#">General Chemistry</a></li> </ul>
<b>WPHAR1203</b>	" <a href="#">Biochimie et biologie moléculaire</a> " has prerequisite(s) WFASB1102 ET WFASB1101 <ul style="list-style-type: none"> <li>• WFASB1102 - <a href="#">Biology</a></li> <li>• WFASB1101 - <a href="#">Organic Chemistry Applied to Pharmaceutical and Biomedical Sciences</a></li> </ul>
<b>WPHAR1204</b>	" <a href="#">Médicaments d'origine naturelle</a> " has prerequisite(s) WFASB1102 ET WPHAR1104 ET WFASB1101 <ul style="list-style-type: none"> <li>• WFASB1102 - <a href="#">Biology</a></li> <li>• WPHAR1104 - <a href="#">Bases of Pharmacology</a></li> <li>• WFASB1101 - <a href="#">Organic Chemistry Applied to Pharmaceutical and Biomedical Sciences</a></li> </ul>
<b>WPHAR1205</b>	" <a href="#">Pharmacocinétique et métabolisme des xénobiotiques</a> " has prerequisite(s) WPHAR1104 ET WFASB1101 <ul style="list-style-type: none"> <li>• WPHAR1104 - <a href="#">Bases of Pharmacology</a></li> <li>• WFASB1101 - <a href="#">Organic Chemistry Applied to Pharmaceutical and Biomedical Sciences</a></li> </ul>
<b>WPHAR1206</b>	" <a href="#">Pharmacologie générale (2e partie)</a> " has prerequisite(s) WPHAR1103 ET WPHAR1104 <ul style="list-style-type: none"> <li>• WPHAR1103 - <a href="#">Cell Physiology and Cell Biology Applied to Medicine</a></li> <li>• WPHAR1104 - <a href="#">Bases of Pharmacology</a></li> </ul>
<b>WPHAR1207</b>	" <a href="#">Physiologie humaine</a> " has prerequisite(s) WPHAR1102 ET WPHAR1103 <ul style="list-style-type: none"> <li>• WPHAR1102 - <a href="#">Elements of Anatomy and Histology</a></li> <li>• WPHAR1103 - <a href="#">Cell Physiology and Cell Biology Applied to Medicine</a></li> </ul>
<b>WPHAR1211</b>	" <a href="#">Exercice d'intégration de sciences pharmaceutiques</a> " has prerequisite(s) WFASB1101 ET WPHAR1104 <ul style="list-style-type: none"> <li>• WFASB1101 - <a href="#">Organic Chemistry Applied to Pharmaceutical and Biomedical Sciences</a></li> <li>• WPHAR1104 - <a href="#">Bases of Pharmacology</a></li> </ul>
<b>WPHAR1301</b>	" <a href="#">Analyse instrumentale</a> " has prerequisite(s) WPHAR1200 ET WPHAR1202 <ul style="list-style-type: none"> <li>• WPHAR1200 - <a href="#">Biophysics Applied to Medicines</a></li> <li>• WPHAR1202 - <a href="#">Introduction to Analytical Chemistry</a></li> </ul>
<b>WPHAR1303</b>	" <a href="#">Physico-chimie appliquée au médicament</a> " has prerequisite(s) WPHAR1100 <ul style="list-style-type: none"> <li>• WPHAR1100 - <a href="#">Elements of Physics for Pharmaceutical Sciences</a></li> </ul>
<b>WPHAR1304</b>	" <a href="#">Pharmacie galénique (1ère partie)</a> " has prerequisite(s) WPHAR1201 ET WPHAR1205 <ul style="list-style-type: none"> <li>• WPHAR1201 - <a href="#">Structure and Synthesis Strategy of Medicines</a></li> <li>• WPHAR1205 - <a href="#">Pharmacokinetics and Metabolism of Xenobiotics</a></li> </ul>
<b>WPHAR1305</b>	" <a href="#">Pharmacocinétique et pharmacogénomique</a> " has prerequisite(s) WPHAR1205 ET WPHAR1203 <ul style="list-style-type: none"> <li>• WPHAR1205 - <a href="#">Pharmacokinetics and Metabolism of Xenobiotics</a></li> <li>• WPHAR1203 - <a href="#">Biochemistry and Molecular Biology</a></li> </ul>
<b>WPHAR1306</b>	" <a href="#">Physiopathologie, biomarqueurs, pharmacologie spéciale : système cardio-vasculaire, sang et coagulation et cancer</a> " has prerequisite(s) WPHAR1206 ET WPHAR1207

- WPHAR1206 - [Bases of Pharmacology \(Part 2\)](#)
  - WPHAR1207 - [Human Physiology](#)
- WPHAR1307** "[Physiopathologie, biomarqueurs, pharmacologie spéciale : systèmes hormonal et digestif](#)" has prerequisite(s) WPHAR1206 ET WPHAR1207
- WPHAR1206 - [Bases of Pharmacology \(Part 2\)](#)
  - WPHAR1207 - [Human Physiology](#)
- WPHAR1308** "[Physiopathologie, biomarqueurs, pharmacologie spéciale : maladies infectieuses](#)" has prerequisite(s) WPHAR1206 ET WFASB1200
- WPHAR1206 - [Bases of Pharmacology \(Part 2\)](#)
  - WFASB1200 - [Microbiology](#)
- WPHAR1309** "[Physiopathologie, biomarqueurs, pharmacologie spéciale : systèmes nerveux central et respiratoire, douleur et inflammation, allergie et ophtalmologie](#)" has prerequisite(s) WPHAR1206 ET WPHAR1207
- WPHAR1206 - [Bases of Pharmacology \(Part 2\)](#)
  - WPHAR1207 - [Human Physiology](#)
- WPHAR1310** "[Immunologie et vaccins](#)" has prerequisite(s) WPHAR1206 ET WPHAR1203
- WPHAR1206 - [Bases of Pharmacology \(Part 2\)](#)
  - WPHAR1203 - [Biochemistry and Molecular Biology](#)
- WPHAR1311** "[Séminaire intégratif de pharmacologie spéciale](#)" has prerequisite(s) WPHAR1206 ET WPHAR1207
- WPHAR1206 - [Bases of Pharmacology \(Part 2\)](#)
  - WPHAR1207 - [Human Physiology](#)
- WPHAR1313** "[Stage d'orientation \(4 semaines\)](#)" has prerequisite(s) WPHAR1207 ET WPHAR1104
- WPHAR1207 - [Human Physiology](#)
  - WPHAR1104 - [Bases of Pharmacology](#)
- WPHAR1314** "[Séminaire intégré de sciences pharmaceutiques](#)" has prerequisite(s) WPHAR1202 ET WPHAR1201 ET WPHAR1207 ET WPHAR1104
- WPHAR1202 - [Introduction to Analytical Chemistry](#)
  - WPHAR1201 - [Structure and Synthesis Strategy of Medicines](#)
  - WPHAR1207 - [Human Physiology](#)
  - WPHAR1104 - [Bases of Pharmacology](#)

## The programme's courses and learning outcomes

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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

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### FARM1BA - 1ST ANNUAL UNIT

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- Mandatory
- ⊗ Optional
- △ Not offered in 2026-2027
- ⊖ Not offered in 2026-2027 but offered the following year
- ⊕ Offered in 2026-2027 but not the following year
- △ ⊕ Not offered in 2026-2027 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...)

### ○ Major

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#### ○ From Molecule to Medicine

○ WPHAR1100	<a href="#">Elements of Physics for Pharmaceutical Sciences</a>	Bernard Gallez (coord.)	15 [q1] [25h] [4 Credits] ⊕
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○ WPHAR1101	Inorganic Medicines: From Physics to Diagnostic and Therapeutic Uses	Bernard Gallez	ES [q2] [25h] [4 Credits] ⓘ
○ WFASB1100	General Chemistry		ES [q1] [60h +26h] [8 Credits] ⓘ
○ WFASB1101	Organic Chemistry Applied to Pharmaceutical and Biomedical Sciences	Raphaël Frédéric Olivier Riant	ES [q2] [60h +30h] [9 Credits] ⓘ

### ○ From Drug to Patient

○ WFASB1102	Biology	Charles De Smet Jean Baptiste Demoulin Pascal Kienlen-Campard	ES [q1] [60h +10h] [8 Credits] ⓘ
○ WPHAR1102	Elements of Anatomy and Histology		ES [q2] [40h] [6 Credits] ⓘ
○ WPHAR1103	Cell Physiology and Cell Biology Applied to Medicine	Olivier Feron (coord.)	ES [q2] [25h] [4 Credits] ⓘ
○ WPHAR1104	Bases of Pharmacology	Emmanuel Hermans	ES [q2] [25h +7.5h] [5 Credits] ⓘ
○ WPHAR1105	Introduction to Medicine, Pharmaceutical Information Sources, and the Pharmacy Profession	Didier Lambert Giulio Muccioli (coord.) Hélène Thiroit	ES [q1] [35h +30h] [5 Credits] ⓘ

### ○ From Professional to Healthcare Provider

○ LANGL1854	Medical English <i>Les étudiant.es inscrit.es en bachelier en sciences pharmaceutiques doivent suivre le cours au Q1</i>	Stéphanie Brabant Aurélié Deneumoustier Ariane Halleux Carlo Lefevre (coord.) Mark Theodore Pertuit	ES [q1 or q2] [30h] [3 Credits] ⓘ
○ WFASB1103	Philosophy – foundations of science	Charles Pence	ES [q1] [15h] [2 Credits] ⓘ
○ WPHAR1106	Sustainable development and health	Nathalie Delzenne Didier Lambert	ES [q2] [15h] [2 Credits] ⓘ

**FARM1BA - 2ND ANNUAL UNIT**

- Mandatory
- ⊗ Optional
- △ Not offered in 2026-2027
- ⊖ Not offered in 2026-2027 but offered the following year
- ⊕ Offered in 2026-2027 but not the following year
- △ ⊕ Not offered in 2026-2027 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 Major****o From Molecule to Medicine**


○ WPHAR1200	<a href="#">Biophysics Applied to Medicines</a> ■		(FR) [q1] [30h+15h] [4 Credits] △ 🌐
○ WPHAR1201	<a href="#">Structure and Synthesis Strategy of Medicines</a> ■		(FR) [q1] [36h+60h] [6 Credits] △ 🌐
○ WPHAR1202	<a href="#">Introduction to Analytical Chemistry</a> ■		(FR) [q2] [30h+60h] [6 Credits] △ 🌐
○ WPHAR1203	<a href="#">Biochemistry and Molecular Biology</a> ■		(FR) [q1] [60h +37.5h] [8 Credits] △ 🌐

**o From Drug to Patient**



○ WFASB1200	<a href="#">Microbiology</a> ■		(FR) [q1] [20h+15h] [3 Credits] △ 🌐
○ WPHAR1204	<a href="#">Drugs of Natural Origin</a> ■		(FR) [q1] [45h+0h] [4 Credits] △ 🌐
○ WPHAR1205	<a href="#">Pharmacokinetics and Metabolism of Xenobiotics</a> ■		(FR) [q2] [30h+30h] [4 Credits] △ 🌐
○ WPHAR1206	<a href="#">Bases of Pharmacology (Part 2)</a> ■		(FR) [q2] [30h+5h] [4 Credits] △ 🌐
○ WPHAR1207	<a href="#">Human Physiology</a> ■		(FR) [q2] [60h] [7 Credits] △ 🌐
○ WPHAR1208	<a href="#">Statistical Data Analysis</a>		(FR) [q2] [15h+15h] [3 Credits] △ 🌐

**o From Professional to Healthcare Provider**

○ LANGL1855	<a href="#">Medical English</a> ■	Timothy Byrne (coord.) Aurélie Deneumoustier Carlo Lefevre (coord.)	(EN) [q1 or q2] [30h] [3 Credits] 🌐
○ WPHAR1209	<a href="#">Medicines, Population, and Health Care Systems</a>		(FR) [q1] [20h+10h] [3 Credits] △ 🌐

○ WPHAR1210	Scientific and Interpersonal Communication		PS [q1] [15h+15h] [3 Credits] △ 
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○ **Pharmaceutical Integration**

○ WPHAR1211	Pharmaceutical Sciences Integration Exercise 		PS [q2] [5h+10h] [2 Credits] △ 
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**FARM1BA - 3RD ANNUAL UNIT**

- Mandatory
- ⊗ Optional
- △ Not offered in 2026-2027
- ⊖ Not offered in 2026-2027 but offered the following year
- ⊕ Offered in 2026-2027 but not the following year
- △ ⊕ Not offered in 2026-2027 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 Major****o From Molecule to Medicine**

○ WPHAR1301	<a href="#">Instrumental Analysis</a> ■		FR [q1] [30h+90h] [6 Credits] △ 🌐
○ WPHAR1302	<a href="#">Principles of Medicinal Chemistry</a>		FR [q2] [45h+30h] [6 Credits] △ 🌐
○ WPHAR1303	<a href="#">Physical Chemistry Applied to Medicine</a> ■		FR [q1] [15h] [2 Credits] △ 🌐
○ WPHAR1304	<a href="#">Pharmaceutical Technology (Part 1)</a> ■		FR [q2] [30h+12h] [3 Credits] △ 🌐

**o From Drug to Patient**

○ WPHAR1305	<a href="#">Pharmacokinetics and Pharmacogenomics</a> ■		FR [q1] [22.5h] [3 Credits] △ 🌐
○ WPHAR1306	<a href="#">Pathophysiology, Biomarkers, Clinical Pharmacology: Cardiovascular System, Blood and Coagulation, and Cancer</a> ■		FR [q1] [57h+8h] [6 Credits] △ 🌐
○ WPHAR1307	<a href="#">Pathophysiology, Biomarkers, Clinical Pharmacology: Hormonal and Digestive Systems</a> ■		FR [q1] [36h+8h] [4 Credits] △ 🌐
○ WPHAR1308	<a href="#">Pathophysiology, Biomarkers, Clinical Pharmacology: Infectious Diseases</a> ■		FR [q2] [55h+8h] [6 Credits] △ 🌐
○ WPHAR1309	<a href="#">Pathophysiology, Biomarkers, Clinical Pharmacology: Central Nervous and Respiratory Systems, Pain and Inflammation, Allergy and Ophthalmology</a> ■		FR [q2] [47h+8h] [6 Credits] △ 🌐
○ WPHAR1310	<a href="#">Immunology and Vaccines</a> ■		FR [q1] [30h] [3 Credits] △ 🌐
○ WPHAR1311	<a href="#">Integrative Seminar in Clinical Pharmacology</a> ■		FR [q1+q2] [4h+26h] [2 Credits] △ 🌐

**o From Professional to Healthcare Provider**

○ WPHAR1312	<a href="#">Epidemiology and Evidence-based Practice</a>		FR [q1] [30h+20h] [4 Credits] △ 🌐
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<p>○ WPHAR1313</p>	<p>Orientation Internship (4 weeks) 📄</p>		<p>📅 [q2] [7.5h] [5 Credits] △ 🌐</p>
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○ **Pharmaceutical Integration**

<p>○ WPHAR1314</p>	<p>Integrated Seminar in Pharmaceutical Sciences 📄</p>		<p>📅 [q2] [45h] [4 Credits] △ 🌐</p>
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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 2026-2027, you must have obtained your diploma during the academic years 2023-2024, 2024-2025 ou 2025-2026. 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 diploma or, at the very least, proof of the filing of the equivalence request with the Wallonia-Brussels Federation (French Community of Belgium). For any information relating to obtaining an equivalence, please refer to [the following site](#).
- For any secondary school diploma **from a country outside the European Union**, the admission application must contain the [equivalence of your diploma](#) issued by the Wallonia-Brussels Federation (French Community of Belgium). If you have a restrictive equivalence for the programme of your choice, in addition of it, you **must** have either the [DAES](#) or a certificate of successful completion of the [examination giving access to 1<sup>st</sup> cycle studies](#) when you submit your application

## Access based on validation of professional experience

Admission to undergraduate studies on the basis of accreditation of knowledge and skills obtained through professional or personal experience (Accreditation of Prior Experience)

Subject to the general requirements laid down by the authorities of the higher education institution, with the aim of admission to the undergraduate programme, the examination boards accredit the knowledge and skills that students have obtained through their professional or personal experience.

This experience must correspond to at least five years of documented activity, with years spent in higher education being partially taken into account: 60 credits are deemed equivalent to one year of experience, with a maximum of two years being counted. At the end of an assessment procedure organized by the authorities of the higher education institution, the Examination Board will decide whether a student has sufficient skills and knowledge to successfully pursue undergraduate studies.

After this assessment, the Examination Board will determine the additional courses and possible exemptions constituting the supplementary requirements for the student's admission.

## Special requirements to access some programmes

- Admission to **undergraduate studies in engineering: civil engineering and architect**

Pass certificate for the [special entrance examination for undergraduate studies in engineering: civil engineering and architect](#).

Admission to these courses is always subject to students passing the special entrance examination. Contact the faculty office for the programme content and the examination arrangements.

- Admission to **undergraduate studies in veterinary medicine**

[Admission to undergraduate studies in veterinary medicine is governed by the Decree of 16 June 2006 regulating the number of students in certain higher education undergraduate courses \(non-residents\)](#).

- Admission to **undergraduate studies in physiotherapy and rehabilitation**

[Admission to undergraduate studies in physiotherapy and rehabilitation is governed by the Decree of 16 June 2006 regulating the number of students in certain higher education undergraduate courses \(non-residents\)](#).

- Admission to **undergraduate studies in psychology and education: speech and language therapy**

[Admission to undergraduate studies in psychology and education: speech and language therapy is governed by the Decree of 16 June 2006 regulating the number of students in certain higher education undergraduate courses \(non-residents\)](#).

- Admission to **undergraduate studies in medicine and dental science**

[Admission to undergraduate studies in medicine and dental science is governed by the Decree of 16 June 2006 regulating the number of students in certain higher education undergraduate courses \(non-residents\)](#).

Note: students wishing to enrol for a **Bachelor's degree in Medicine** or a **Bachelor's degree in dental science** must first sit an [aptitude test \(fr\)](#).

- Access to **Bachelor of Science in Business Engineering**

The Bachelor of Science in Business Engineering is a joint program organised by KU Leuven and UCLouvain Saint-Louis Bruxelles. In order to register, all candidate must first submit an application via the [KU Leuven admission platform](#). The [conditions of access](#) to this programme are specific.

- Access to **Bachelor in Droit – Rechten – Laws**

The Bachelor in Droit – Rechten – Laws is a joint program organised by KU Leuven and UCLouvain Saint-Louis Bruxelles. In order to register, all candidate must first submit an application via the [KU Leuven admission platform](#). The [conditions of access](#) to this programme are specific.

## 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 bachelor's degree program in pharmaceutical sciences is based on a wide variety of teaching methods that provide an integrated approach to the theoretical and practical aspects of the various disciplines related to medicine.

Theoretical courses aim to develop specific basic knowledge using concrete examples that illustrate the complexity of pharmaceutical sciences. Some theoretical courses are taught in a flipped classroom format that encourages self-learning, with classroom activities focused on discussing concrete cases and authentic situations in which students can apply the concepts they have learned. Most theoretical courses are also combined with practical laboratory work, exercise sessions, and seminars in which students take an active role in their education.

Several teaching units encourage students to learn about pharmaceutical sciences through individual or group work. The aim of this work is to develop self-learning, synthesis, and communication skills.

Finally, through a four-week work experience placement, the bachelor's degree in pharmaceutical sciences allows students to discover for themselves the various professions within the field of pharmacy. Throughout the academic program, theoretical and practical training involves experts in pharmaceutical sciences. This specialized supervision ensures that the skills acquired through the program meet society's current expectations in the field of pharmaceutical sciences.

## Evaluation

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***The evaluation methods comply with the [Academic regulations and procedures](#). 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. However, this calendar is subject to change depending on overall reforms to academic calendars in the Wallonia-Brussels Federation. In particular, a shift towards a two-month system, with course periods lasting half a semester followed by assessments, is expected to be gradually introduced.

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.

To obtain the average, the grades obtained for the teaching units are weighted by their respective credits.

## Possible trainings at the end of the programme

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Positioning of the programme within the University cursus

The bachelor's program gives direct access to the master's degree in pharmaceutical sciences, after which students will have access to complementary master's degrees (industrial pharmacy, clinical biology, hospital and clinical pharmacy) as well as certificates (university certificate in radiopharmacy, university certificate in pharmaceutical sciences, and university certificate in pharmaceutical care) or a doctorate (experimental or clinical research).

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: <a href="tel:+3224362206">+32 (0)2 436 22 06</a>

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: [Alice Thelen](#)
- Conseiller aux études: [Marie-France Herent](#)

