

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.

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	10 [q1] [60h+21h] [8 Credits] 🌐	X
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o *Minor or additional module (30 credits)*

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-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](#) [en-prog-2024-mincucrea]
- > [Minor in Scientific Culture](#) [en-prog-2024-minculsts]
- > [Minor in Development and Environment](#) [en-prog-2024-mindenv]
- > [Minor in Economics](#) [en-prog-2024-minecon]
- > [Minor in European Studies](#) [en-prog-2024-mineuro]
- > [Minor in Gender Studies](#) [en-prog-2024-mingenre]
- > [Minor in Mangement \(basic knowledge\)](#) [en-prog-2024-minogest]
- > [Minor in History](#) [en-prog-2024-minhist]
- > [Minor in Human and Social Sciences](#) [en-prog-2024-minhuso]
- > [Minor in Arabic language and Islamic civilization](#) [en-prog-2024-minislam]
- > [Minor in Philosophy](#) [en-prog-2024-minfilo]
- > [Minor in Medieval Studies](#) [en-prog-2024-minmedi]
- > [Minor in Musicology](#) [en-prog-2024-minmusi]
- > [Minor in Law \(openness\)](#) [en-prog-2024-minodroi]
- > [Minor in Economics \(open\)](#) [en-prog-2024-minoeco]
- > [Minor in Oriental Studies](#) [en-prog-2024-minori]
- > [Minor in Sciences of Religions \(openness\)](#) [en-prog-2024-minreli]
- > [Minor in Sociology and Anthropology](#) [en-prog-2024-minsoca]
- > [Minor in Population and Development Studies](#) [en-prog-2024-minsped]
- > [Minor in Political Sciences](#) [en-prog-2024-minspol]
- > [Minor in Statistics, Actuarial Sciences and Data Sciences](#) [en-prog-2024-minstat]
- > [Minor in numerical technologies and society](#) [en-prog-2024-minstic]
- > [Minor in Christian Theology](#) [en-prog-2024-mintheo]
- > [Additionnal module in Pharmacy](#) [en-prog-2024-appfarm]
- > [Approfondissement en sciences pharmaceutiques - recherche](#) [en-prog-2024-appfarr]
- > [Minor in Biomedicine \(openness\)](#) [en-prog-2024-minsbim]
- > [Minor in Literary Studies](#) [en-prog-2024-minlitter]
- > [Minor in Linguistics](#) [en-prog-2024-minlingui]

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

- LANGL1855** "Medical English" has prerequisite(s) LANGL1854
- LANGL1854 - Medical English
- WFARM1212** "Éléments de physiologie générale" has prerequisite(s) WMD1120P AND WMD1006
- WMD1120P - General biology and an experimental approach to biology
 - WMD1006 - Cytology and general histology
- WFARM1213** "Human physiology and basics of physiopathology" has prerequisite(s) WMD1120P AND WMD1006 AND WFARM1009
- WMD1120P - General biology and an experimental approach to biology
 - WMD1006 - Cytology and general histology
 - WFARM1009 - Elements of general and functional anatomy
- WFARM1219** "Biophysics applied to the drugs" has prerequisite(s) WMD1102 AND WMD1104 AND WMD1105
- WMD1102 - Physique expérimentale et introduction mathématique aux sciences expérimentales (1e partie)
 - WMD1104 - Physique expérimentale et introduction mathématique aux sciences expérimentales (2e partie)
 - WMD1105 - Chimie générale et minérale
- WFARM1221** "Biochemistry and molecular biology" has prerequisite(s) WMD1106 AND WMD1120P
- WMD1106 - ORGANIC CHEMISTRY
 - WMD1120P - General biology and an experimental approach to biology
- WFARM1231** "Organical chemistry of drugs" has prerequisite(s) WMD1105 AND WMD1106
- WMD1105 - Chimie générale et minérale
 - WMD1106 - ORGANIC CHEMISTRY
- WFARM1232** "General Pharmacology" has prerequisite(s) WMD1120P AND WMD1006
- WMD1120P - General biology and an experimental approach to biology
 - WMD1006 - Cytology and general histology
- WFARM1237** "Botanical introduction to pharmacognosy" has prerequisite(s) WMD1120P
- WMD1120P - General biology and an experimental approach to biology
- WFARM1238** "Active ingredients of natural origin" has prerequisite(s) WMD1120P
- WMD1120P - General biology and an experimental approach to biology
- WFARM1239** "Computerized workshop and research on scientific information related to drugs." has prerequisite(s) LANGL1854
- LANGL1854 - Medical English
- WFARM1243** "Introduction to analytical chemistry" has prerequisite(s) WMD1104 AND WMD1105 AND WMD1106 AND WFARM1003
- WMD1104 - Physique expérimentale et introduction mathématique aux sciences expérimentales (2e partie)
 - WMD1105 - Chimie générale et minérale
 - WMD1106 - ORGANIC CHEMISTRY
 - WFARM1003 - Practicals of general chemistry approach
- WFARM1244** "Travaux pratiques d'introduction à la chimie analytique" has prerequisite(s) WMD1104 AND WMD1105 AND WMD1106 AND WFARM1003
- WMD1104 - Physique expérimentale et introduction mathématique aux sciences expérimentales (2e partie)
 - WMD1105 - Chimie générale et minérale
 - WMD1106 - ORGANIC CHEMISTRY
 - WFARM1003 - Practicals of general chemistry approach
- WFARM1247** "Statistical data processing" has prerequisite(s) WMD1102
- WMD1102 - Physique expérimentale et introduction mathématique aux sciences expérimentales (1e partie)
- WFARM1282** "General microbiology" has prerequisite(s) WMD1120P
- WMD1120P - General biology and an experimental approach to biology

WMD1105

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	Introduction to analytical chemistry ■	Marie-France Herent Giulio Muccioli (coord.)	FR [q2] [30h] [4 Credits] 🌐 > English- friendly
○ WFARM1244	Travaux pratiques d'introduction à la chimie analytique ■	Marie-France Herent Giulio Muccioli (coord.)	FR [q2] [0h +105h] [3 Credits] 🌐
○ WFARM1231	Organical chemistry of drugs ■	Mohamed Ayadim Raphaël Frédéric (coord.)	FR +q [45h [10h] [1 Credits] 🌐 > English- friendly
○ WFARM1221	Biochemistry and molecular biology ■	Nathalie Delzenne (coord.) Frédéric Lemaigre Joseph Lorent	FR [q1] [75h +37.5h] [10 Credits] 🌐

⌘ **Additional module in Pharmacy**

○ **Deuxième bloc annuel de bachelier**



FARM1BA - 3RD ANNUAL UNIT

⌘ WFARM1375	Drugs and sustainable development	Nathalie Delzenne (coord.) Raphaël Frédéric 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](#) 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:

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

Specific professional rules

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

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

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

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

Entity

Structure entity

