



# Bachelor in Pharmacy

## Programme mnemonic

BA-PHAR

## Studies level

Bachelor

## Learning language

french

## Schedule

office hours

## Studies category / subcategory

Health / Biomedical and pharmaceutical sciences

## Campus

Plaine

Many TU are devoted to the basic formation in biological and chemical sciences which will help the students, once they graduated as pharmacists:

- > To access and complete the different complementary Masters in pharmaceutical sciences
- > To attend to a program of continuing education, a program required by the law and which has become mandatory considering the new molecules constantly developed and which have narrower therapeutic targets.

Our teaching assistants will provide supervision during your seminars, practicals and guidance sessions.

Equipment available to the students :

- > Teaching and research laboratoires and a microscopy room
- > A library dedicated to pharmaceutical journals and textbooks
- > A computer room
- > A study room
- > An educational pharmacy with a software to manage pharmacies in order to simulate practical situations
- > A museum on medicinal plants and phytochemistry

Involvement in the teaching of the Master program in pharmaceutical sciences of numerous professors of the Bachelor program.

Organization of the complete cursus in pharmaceutical sciences which allows collaboration and tutorship among students in the Bachelor and in the Master programs.

## Programme objectives

At the end of the program, the students:

- > will have acquired basic expertise for the analysis of drugs, their components and their metabolites ;
- > will be able to recognize the major targets of drugs and to explain the biomedical basis for their use in therapeutics
- > will be able to work in various laboratories (medical, toxicological, food analysis) and various research departments.

## Programme's added value

The program is organized by the Faculty of Pharmacy which has extensive collaboration (teaching and research) with the Faculty of Sciences and the Faculty of Medicine.

Many members of our teaching staff (full professors, assistant professors) are pharmacists. Some of them are even involved in a program of permanent training organized by a Belgian group of pharmacists. Our teaching staff is thus well aware of the most important academic aspects not only to train a good pharmacist but also to give this pharmacist a solid background which will help him to progress in his profession.

Research internship in the Faculty laboratories is a possibility for students who plan to join a PhD program or the complementary Master program in Industrial Pharmacist.

## Teaching methods

Theoretical and practical classes as well as seminars and transdisciplinary projects

## Succeed in your studies

### Choose

The information and guidance counsellors at the InfOR-études [<https://www.ulb.be/en/studies-info-desk-1>] service will help you choose your studies throughout the year.

### Succeed

Take part in preparatory courses [<https://www.ulb.be/en/studies-info-desk-1>] or get help to succeed [<https://www.ulb.be/en/studies-info-desk-1>], before or during your studies.

#### Get help

Apply for financial aid, look for accommodation or a student job, get support [<https://www.ulb.be/fr/aides-services-et-accompagnement/aid-services-and-support-1>] for your specific needs.

## International/Openness

We have had exchange programs with foreign universities for a number of years now. Most exchanges take place in the last part of the Master program.

## Job opportunities

If you choose to go on to do a Master in this subject, after 5 years of study, you will obtain a Master in pharmaceutical sciences and be officially recognised as a qualified pharmacist, which will give you access to employment in the following areas.

- > in a high-street pharmacist or in a hospital
- > in an analytical laboratory (biological, toxicological, food) or a research laboratory
- > in the pharmaceutical industry
- > in teaching, public administration, buying and selling pharmaceuticals ...

NB: additional qualifications are required in some of these fields (lasting from between 1 to 5 years).

You could also go into research in any field relating to sciences: chemistry, biology, pharmacology, medicine, food and nutrition, etc.

The purpose of the Bachelor program is not to give access to a job but rather to give access to the subsequent 2-part Master program in pharmaceutical sciences.

However, graduated students can:

- > Either register in other Master programs (directly or with additional courses)
- > Either work in the pharmaceutical industry or in other laboratories

### Contacts

 <http://www.ulb.ac.be/facs/pharma/index.html>

### Jury President

Véronique FONTAINE

### Jury Secretaries

Franck MEYER (bloc 1) and François DUFRASNE (bloc 2 & 3)




















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Teaching units (TU) of the first part of the cursus aim to acquire basic scientific knowledge with a pharmaceutical specificity in mind. The TU « General Biology » deals with aspects relative to cytology, histology, parasitology. The TU « Plant Biology » is concerned with the evolution of plant kingdom, and the classification of plants with medicinal properties. The TU « Fundamentals of Anatomy » gives the future pharmacists basic knowledge on the structure and topology of human body and includes elements of embryology. The TU « General Chemistry » deals with substances at a molecular level which is a requirement to better explain the progress of a chemical reaction. The TU « Organic Chemistry » explains the mechanisms of the reactions involved in the synthesis of active ingredients of drugs. To improve the rate of success of first-year student, learning seminars are organized (test guidance, language skills, literature search, computer science). The TU « Pharmacy and Society » deals with themes such as the history of pharmacy, the journey of drugs, the access of patients to care and medications, economical problems of health care and a few major ethical and social problems in relation to medical drugs.

The aim of the TU of the second and third parts of the program is to provide the students the fundamentals of biochemistry, biology and physiology. These elements are required to the comprehension of pathological processes in man (infection, metabolic disorders, tumors,...) studied in the last part of the program. Other TU introduce the students to the methods and techniques routinely used to analyze drugs. Some TU are devoted to the study and the quality control of drugs and of their components. These TU give the students the theoretical and practical basis required for their future study of the mode of action and of the analysis of therapeutic agents. At the end of the program, transdisciplinary practicals are organized in order to help the students to integrate their recent biological and chemical assets through problem-based learning.

## Bloc 1 | BA-PHAR

### Cours obligatoires

- BIOL-J101 **Biologie animale** | Hassan JIJAKLI (Coordinator)  
 5 credits [lecture: 50h, tutorial classes: 3h, practical work: 11h]  second term  French
- BIOL-J102 **Biologie végétale** | Nausicaa NORET (Coordinator)  
 5 credits [lecture: 36h, practical work: 12h, field trips: 12h]  first term  French
- CHIM-J101 **Chimie générale** | Véronique CABIAUX (Coordinator)  
 10 credits [lecture: 60h, tutorial classes: 48h]  first and second terms  French
- CHIM-J102 **Chimie organique** | Franck MEYER (Coordinator)  
 5 credits [lecture: 36h, tutorial classes: 24h]  second term  French
- CHIM-J103 **Chimie expérimentale** | Franck MEYER (Coordinator) and Véronique CABIAUX  
 5 credits [practical work: 48h]  first and second terms  French
- MATH-F113 **Mathématiques** | Špela SPENKO (Coordinator)  
 5 credits [lecture: 24h, tutorial classes: 24h]  first term
- MEDI-J100 **Éléments d'anatomie et d'embryologie humaine** | Véronique FEIPEL (Coordinator), Hassan JIJAKLI and Olivier Snoeck  
 5 credits [lecture: 32h, tutorial classes: 6h, practical work: 4h, field trips: 4h]  first term  French
- PHYS-F104 **Physique 1** | Barbara CLERBAUX (Coordinator), Sébastien CLESSE and Michele SFERRAZZA  
 10 credits [lecture: 72h, tutorial classes: 36h, field trips: 4h]  academic year  French
- TRAN-J103 **Pharmacie et société et anglais scientifique** | Franck MEYER (Coordinator), Kelsey HULL and Pierre VAN ANTWERPEN  
 5 credits [lecture: 12h, language practice: 24h, personal assignments: 24h]  second term  French
- TRAN-J111 **Accueil et initiation à la méthodologie universitaire** | Nathalie WAUTHOZ (Coordinator)  
 5 credits [tutorial classes: 38h, workshop: 8h]  first term  French

# Bachelor in Pharmacy

## Bloc 2 | BA-PHAR

### Cours obligatoires

- BIOL-F208 **Biochimie et physiologie de la cellule** | Vincent RAUSSENS (Coordinator), Véronique KRUYSS and Maud MARTIN  
 ⌚ 5 credits [lecture: 60h] 📅 first term 🗨️ French
- BIOL-J201 **Introduction à l'étude des plantes médicinales** | Caroline STEVIGNY (Coordinator)  
 ⌚ 5 credits [lecture: 18h, practical work: 30h, field trips: 12h] 📅 second term 🗨️ French
- BMOL-J201 **Biologie moléculaire** | David VERMIJLEN (Coordinator)  
 ⌚ 5 credits [lecture: 42h] 📅 first term 🗨️ French
- CHIM-J201 **Chimie organique pharmaceutique** | François DUFRASNE (Coordinator)  
 ⌚ 5 credits [lecture: 36h, tutorial classes: 12h] 📅 second term 🗨️ French
- CHIM-J202 **Spectroscopies moléculaires et spectrométrie de masse** | Pierre VAN ANTWERPEN (Coordinator), Cédric Delporte and Michel LUHMER  
 ⌚ 5 credits [lecture: 12h, tutorial classes: 18h, workshop: 6h, personal assignments: 24h] 📅 second term 🗨️ French
- MATH-F315 **Probabilités et statistiques** | Thomas VERDEBOUT (Coordinator) and Jennifer ALONSO GARCIA  
 ⌚ 5 credits [lecture: 30h, tutorial classes: 30h] 📅 first term 🗨️ French
- MEDI-J201 **Physiologie humaine** | Stéphanie POCHET (Coordinator)  
 ⌚ 5 credits [lecture: 60h] 📅 second term 🗨️ French
- PHAR-J210 **Analyse Pharmaceutique, méthodes volumétriques** | Cédric Delporte (Coordinator)  
 ⌚ 5 credits [lecture: 30h, tutorial classes: 10h, practical work: 40h] 📅 first term 🗨️ French
- PHAR-J230 **Analyse Pharmaceutique, méthodes Physicochimiques** | Nathalie WAUTHOZ (Coordinator)  
 ⌚ 5 credits [lecture: 30h, tutorial classes: 6h, practical work: 32h] 📅 second term 🗨️ French
- TRAN-J201 **Scientific English and transdisciplinary projects** | Franck MEYER (Coordinator), François DUFRASNE, Cédric Delporte, Kelsey HULL, Hassan JIJAKLI, Stéphanie POCHET, Caroline STEVIGNY, David VERMIJLEN, Nathalie WAUTHOZ and Jehan Waeytens  
 ⌚ 5 credits [lecture: 12h, tutorial classes: 24h, personal assignments: 24h] 📅 first and second terms 🗨️ English/French
- TRAN-J211 **Approche pratique des sciences du vivant** | David VERMIJLEN (Coordinator), Cédric Delporte and Stéphanie POCHET  
 ⌚ 10 credits [practical work: 80h, seminars: 20h, personal assignments: 15h] 📅 academic year 🗨️ French

# Bachelor in Pharmacy

## Bloc 3 | BA-PHAR

### Cours obligatoires

- BIOL-J301 **Microbiologie générale, Hygiène, Immunologie** | Véronique FONTAINE (Coordinator) and David VERMIJLEN  
 5 credits [lecture: 50h] 📅 first term 🗨️ French
- BIOL-J302 **Microbiologie médicale** | Véronique FONTAINE (Coordinator)  
 5 credits [lecture: 22h, practical work: 42h] 📅 first term 🗨️ French
- MEDI-J301 **Physiopathologie, éléments de pathologie humaine et épidémiologie** | Véronique MATHIEU (Coordinator) and Lionel Larcin  
 5 credits [lecture: 44h, tutorial classes: 4h] 📅 first term 🗨️ French
- PHAR-J301 **Pharmacologie générale et éléments de pharmacocinétique** | Stéphanie POCHET (Coordinator)  
 5 credits [lecture: 24h, tutorial classes: 24h, personal assignments: 12h] 📅 first term 🗨️ French
- PHAR-J302 **Analyse pharmaceutique : méthodes instrumentales et contrôle de qualité** | Cédric Delporte (Coordinator)  
 5 credits [lecture: 36h, practical work: 24h] 📅 second term 🗨️ French
- PHAR-J303 **Etude des médicaments : Pharmacognosie et médicaments d'origine naturelle** | Caroline STEVIGNY (Coordinator)  
 5 credits [lecture: 42h, practical work: 18h] 📅 first term 🗨️ French
- PHAR-J304 **Etude des médicaments : médicaments inorganiques et radiopharmacie** | Jehan Waeytens (Coordinator), Pierre VAN ANTWERPEN and Zéna WIMANA  
 5 credits [lecture: 36h, practical work: 24h] 📅 second term 🗨️ French
- PHAR-J305 **Etude des médicaments : médicaments organiques 1 et biologiques** | François DUFRASNE (Coordinator) and Cédric Delporte  
 5 credits [lecture: 60h] 📅 second term 🗨️ French
- TRAN-J311 **Projet transdisciplinaire en analyse des médicaments** | François DUFRASNE (Coordinator), Cédric Delporte and Caroline STEVIGNY  
 10 credits [tutorial classes: 28h, practical work: 62h, personal assignments: 18h] 📅 academic year 🗨️ French
- TRAN-J312 **Pratique officinale** | Florence SOUARD (Coordinator), François DUFRASNE, Cédric Delporte, Caroline STEVIGNY and Pierre VAN ANTWERPEN  
 10 credits [tutorial classes: 24h, practical work: 2h, work placement: 78h, personal assignments: 12h] 📅 first and second terms 🗨️ French