

Faculty of Medicine



FARM2

Grade de pharmacien (Pharmacist)



Programme management

FARM Ecole de pharmacie

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The secretary's office is accessible to students every morning from 10 00 a.m. till 12, noon, and on Mondays and Thursdays from 1 00 p.m. to 2 00 p.m. There is a special timetable during the holidays.

Study objectives

The **first and second years** of the degree programme are years of theoretical and practical training which revolve around three main axes : Chemistry (analytical and pharmaceutical), Pharmaco-toxicology and Galenics (the study of pharmaceutical forms). In order to correctly assume his role in the art of healing, the pharmacist receives a university education which gives him the capacity to make a synopsis between Chemistry, Physics and Biology to create and plan the activity, demonstrate its efficacy and safety, prepare and deliver and give advice on the use of the medication. This programme generally evolves towards the specialisation in Pharmacy. In an effort to foster a personalised approach to the studies, the programme of the 2nd degree year offers a wide range of optional courses. In the context of these courses, the student has to write a personal piece of work based on bibliographic research. .

The **third year** of the degree programme, includes an integrated seminar (the pooling together of all theoretical knowledge with a view to solving a particular concrete pharmaceutical problem), elements of courses from Semiology, Legislation and Ethics as well as a practical training course in Galenics and an apprenticeship (6 mois) in a dispensary under the responsibility of an experienced training supervisor, approved by the University.

Admission conditions

The programme is accessible to holders of the first study cycle ("candidat") diploma in Pharmaceutical Sciences. Subject to the approval of the academic secretary, holders of "candidats" diplomas in Medecine, Dental or Biomedical Sciences may reorient their studies to Pharmacy.

Admission procedure

The University admission and enrolment procedures are detailed in the "General Information Pamphlet" of the study programme.

General structure of the programme

The exam leading to the awarding of the title of 'Pharmacist' comprises five years of studies spread over two cycles.

First cycle : c.f. this particular programme.

The **second cycle** which covers three years of studies leads to the degree of Pharmacist. On the programme of these first two years features the study of specific subjects such as Analytical Chemistry, Pharmaceutical Chemistry, Medical Biochemistry, Bromatology, Microbiology, Galenic and Industrial Pharmacy, Pharmacognosy, Pharmacology, Toxicology. On the general training programme, a very important part is reserved for laboratory work. The last year is shared between the University studies and an apprenticeship carried out in a dispensary open to the public or a hospital pharmacy.

Programme content

FARM21 First year of studies

The students who pass their first year in the June session may get authorisation to carry out one month of apprenticeship with an approved training supervisor, during the holidays. Information is available from the secretary responsible for the

apprenticeships.

<u>FARM2190</u>	A préciser (in French)	
<u>FARM2110</u>	A préciser (in French)	
<u>FARM2124</u>	A préciser (in French)	
<u>FARM2143</u>	A préciser (in French)	
<u>FARM2151</u>	A préciser (in French)	
<u>FARM2183</u>	A préciser (in French)	
<u>FARM2144</u>	A préciser (in French)	
<u>FARM2145</u>	A préciser (in French)	
<u>FARM2161</u>	A préciser (in French)	
<u>FARM2290</u>	A préciser (in French)	
<u>FARM2146</u>	Special pharmacology (1st part)[30h+15h] (5 credits) (in French)	Chantal Dessy, Marie-Paule Mingeot, Paul Tulkens (coord.), Françoise Van Bambeke
<u>FARM2147</u>	A préciser (in French)	
<u>ANGL2452</u>	Interactive communication[15h] (2 credits)	Jennifer Moreman, Sandrine Mulkers, Marc Piwnik, Françoise Stas

[partim 1st part : 15 hours]

FARM22 Second year of studies

Core courses and practical work

<u>FARM2226</u>	Pharmaceutical chemistry[30h+15h] (4 credits) (in French)	Paul Depovere, Didier Lambert (coord.)
<u>FARM2231</u>	Analytical chemistry[30h] (3 credits) (in French)	Didier Lambert, Joëlle Leclercq
<u>FARM2201</u>	Pharmaceutical approach in nutrition[30h+15h] (3.5 credits) (in French)	Nathalie Delzenne
<u>FARM2212</u>	Pharmaceutics[60h+28h] (8 credits) (in French)	Véronique Prétat
<u>FARM2227</u>	Pharmacologie spéciale (2e partie) et éléments de pharmacothérapie[75h+22.5h] (10.5 credits) (in French)	Olivier Feron, Emmanuel Hermans, Jean-Christophe Jonas, Paul Tulkens, Françoise Van Bambeke
<u>FARM2250</u>	Pharmacotechnique[15h] (1.5 credits) (in French)	Jean Gillard
<u>FARM2272</u>	Toxicology[30h] (3 credits) (in French)	Pedro Buc Calderon
<u>FARM2281</u>	Virology[15h] (1.5 credits) (in French)	Patrick Goubau
<u>FARM2205</u>	Integrated practical exercises and seminars in pharmaceutical sciences[15h+180h] (in French)	Jean Cumps (coord.), Nathalie Delzenne, Paul Depovere, Jean Gillard, Jacques Poupaert
<u>ANGL2452</u>	Interactive communication[15h] (2 credits)	Jennifer Moreman, Sandrine Mulkers, Marc Piwnik, Françoise Stas

[partim 2nd part : 15 hours]

and one of the three 3 following courses, subject to enrolment at the FARM secretary's office.

<u>MD2201</u>	Christian ethics[15h] (2 credits) (in French)	Philippe Goffinet
<u>MD2202</u>	Questions de sciences religieuses: raison et foi[15h] (2 credits) (in French)	N.
<u>MD2203</u>	Questions of Religious Sciences : The Bible and his Message[15h] (2 credits) (in French)	Jean-Marie Van Cangh

Options

Each student (with the exception of research students) is requested to choose, from the list below, 60 hours of theoretical courses (two courses) and 15 hours of seminars relating to one of those courses. In the context of the seminar chosen, the student will present a piece of work relating to a course topic representing an approximate volume of 50 hours of personal studies.

<u>FARM2220</u>	Pharmacochimie et pharmacologie des nouveaux médicaments[30h+15h] (in French)	Didier Lambert, Marie-Paule Mingeot, Paul Tulkens (coord.)
<u>FARM2230</u>	Complement of instrumental analysis[30h+15h] (in French)	Bernard Tilquin
<u>FARM2280</u>	Organotoxicity and cancer : molecular, cellular and functional aspects[30h+15h] (in French)	Pedro Buc Calderon, Olivier Feron, Philippe Hantson
<u>FARM2213</u>	New Directions in Drug Formulation[30h+15h] (in French)	Patrick Couvreur, Véronique Prétat, Véronique Prétat (supplée Rita Vanbever), Rita Vanbever
<u>FARM2182</u>	Molecular genetics of the procaryotes and concepts of genetic engineering[30h+15h] (4 credits) (in French)	Etienne De Plaen, Jean-Noël Octave (coord.)
<u>FARM2240</u>	Pharmacokinetic and clinical biology[30h+15h] (4 credits)	Roger-K. Verbeeck, Pierre Wallemacq

	(in French)	(coord.)
<u>FARM2232</u>	Insulation of natural products and analyzes structural[30h+15h] (in French)	Jean-Louis Habib Jiwan, Joëlle Leclercq (coord.), Etienne Sonveaux

FARM23 Third year of studies

A. Theoretical and practical courses

1. Core courses

During the first 10 weeks of the 1st quadrimester.

<u>FARM2170</u>	Bioéthique and Christian morals[15h] (1 credits) (in French)	Michel Dupuis, Eric Gaziaux, Luc Roegiers
<u>FARM2214</u>	Pharmaceutical law and deontology[30h] (in French)	Didier Lambert, Alain Lejeune, Thierry Roisin
<u>FARM2302</u>	Concepts of semiology[30h+15h] (in French)	Stéphan Clément de Cléty, Chantal Lefebvre

2. Practical work and seminars

During the first 10 weeks, the students are divided into two groups : A and B, which invert their activities at the end of the 5th week.

<u>FARM2265</u>	Practical training in pharmaceutical technology[150h] (6.5 credits) (in French)	Véronique Prétat
<u>FARM2300</u>	Professional practice of pharmacy[15h] (in French)	Benoît Mousset
<i>Only during the period of work experience.</i>		
<u>FARM2301</u>	Integrated seminar of pharmaceutical sciences[40h] (7.5 credits) (in French)	Josiane Burton (coord.), Paul Depovere, Marie-Paule Mingeot, Jacques Poupaert, Véronique Prétat

B. Legal apprenticeship in a dispensary

For a period of six months, full time, carried out in a dispensary which is open to the public, or shared between a hospital dispensary and a dispensary open to the public (in the case of the latter, the apprenticeship project must be accepted by the work experience manager). During this period, the secretarial staff responsible for the apprenticeships will organise activities dedicated to problems relating to professional practice.

The authorisation granted by the jury should be signed by the work training supervisor and handed in to the secretary's office before the beginning of each work placement period.

C. Optional apprenticeship, twice a month, to be undertaken between the end of the 1st and 3rd year of studies.

Possibilities :

- hospital dispensary ;
- dispensary open to the public ;
- clinical biology laboratory ;
- approved laboratory for medication analyses ;
- pharmaceutical firms ;
- research laboratory (Belgian and abroad).

The jury for the 2nd year of the programme may authorise certain students who did not succeed in June to do one month between the 2 sessions of the 2nd year.

The authorisation granted by the jury must be signed by the training supervisor and handed in to the secretary's office in charge of the apprenticeships, before the beginning of each period of work experience.

D. Evaluation

The exam at the end of the 3rd year of the programme includes :

- a) The three subjects covered by the theoretical courses
- b) The evaluation of the seminars and practical work of the 3rd year of studies
- c) An exam on general knowledge covering all of the pharmaceutical subjects.

Status of research student

Created in an effort to initiate scientific research, this status is granted to students who have stood out in previous years and who apply via the relevant committee. This application must be introduced at the end of the first quadrimester of the first year of studies of the pharmacist exam (FARM 21) or, at the end of the second quadrimester of the same year, at the latest. Students who benefit from this status are placed under the responsibility of a member of the academic or scientific personnel, appointed with a definitive title who will supervise his research work and provide the exam juries with an appraisal of his activities. Research students who obtained this status at the beginning of the second quadrimester of the first year of studies (FARM 21) will be required to consecrate 150 hours to research activities.

In addition, research students will be dispensed from the following :

- *partim* (15 hours) of the inorganic pharmaceutical chemistry course (FARM 2110),
- *partim* (105 hours) of the practical work of analytical chemistry and instrumental analysis applied to pharmaceutical sciences (FARM 2141),

- practical work in pharmacognosis (FARM 2161).

Each research student will also have to complete a research apprenticeship of six weeks in the laboratory of his promoter during the holidays between the first and second years of studies.

The research student will confirm his status during the first week of the beginning of the **second year** of the degree in Pharmacy (FARM 22). During this year, he will dedicate 300 hours to research activities. At the end of the first year he will give a seminar during which he will present the subject of his thesis, the methodologies applied and the first results.

This presentation will be given a mark.

In addition, the research student will be dispensed from :

- partim (60 hours) of practical work and integrated seminars (FARM 2205),
- 15 hours of practical work on the pharmaceutical approach to nutrition (FARM 2201),
- 15 hours of seminars on pharmaceutical chemistry (FARM 2226),
- the cours on pharmacotechniques (FARM 2250),
- optional courses.

In the **third year** of studies (FARM 23), the research student will dedicate his time principally to his thesis during the period from 1st August to 30th November. This thesis will be presented and defended in public during the third year of the studies.

Furthermore, research students will be dispensed from :

- partim (95 hours) of practical work and seminars on Gelanic Pharmacy (FARM 2265),
- the integrated seminar on Pharmaceutical Sciences (FARM 2301),
- seminars on professional practice (FARM 2300).

Positioning of the degree within the University cursus

The holders of the university degree in Pharmacy also have access to the following complementary studies :

- Specialised study diploma and higher studies diploma in Pharmaceutical Sciences
- PhD in Pharmaceutical Sciences
- Degree ("Licence") and PhD in Biomedical Sciences
- Specialised study diploma and PhD in Toxicology
- Degree ("Licence") in work safety and hygiene
- Degrees ("Licences") and complementary study diplomas in professional pathology, Ergonomy, Industrial Toxicology and x-ray protection
- Specialised study diploma in Public Health
- Specialised study diploma in hospital management
- Degree ("Licence") and PhD in Family Sciences and Sexology

Upper secondary school teacher-training certificate (Sciences)

The upper secondary school teacher-training certificate is described in the *Science Faculty* programme.

This programme is accessible

- to students enroled on the 2nd cycle of Pharmaceutical studies
- to Pharmacists degree holders.

Holders of the teacher training diploma are certified to teach in secondary and technical schools.

The final exam includes the presentation of two public lessons on topics relating to Health promotion.